



# THE TRANSPORT PLANNING PROFESSIONAL QUALIFICATION

# THE TECHNICAL REPORT

June 2009

# The Technical Report



#### 1 Introduction

- 1.1 The Transport Planning Professional (TPP) qualification has been developed by the Institution of Highways and Transportation (IHT) and the Transport Planning Society (TPS). It is based on the National Occupational Standards (NOS) for Transport Planning developed by GoSkills and TPS. The qualification has been designed to provide professional recognition for transport planners at a level that equates to that of Chartered Engineer.
- 1.3 The qualification is managed by the TPP Professional Standards Committee, a joint IHT and TPS body, and is administered by IHT on behalf of both organisations.
- 1.4 The qualification requires evidence of competence in a range of technical, transport planning, skills as well as in management, in communications skills and in professional commitment. The technical skills are referred to as Section A, whilst those of a more generic nature are described as Section B. The Section A, technical, skill requirements are based on the NOS for Transport Planning<sup>1</sup>, whilst the Section B, management, skill requirements are based on standards produced by the Engineering Council (UK) for Chartered Engineers.
- 1.5 The qualification is also based on four levels of professional competence
  - Awareness: a general understanding of a particular area, including an appreciation of its relevance.
  - Knowledge: an understanding of how a requirement can be satisfied, in addition to a general awareness.
  - Experience: an ability to carry out work under supervision, with the underpinning knowledge
  - Proficiency: an ability to carry out work without supervision and to supervise others, based on both experience and the underpinning knowledge.
- 1.6 Essentially, there are three key steps in obtaining the qualification
  - 1 **learning**: obtaining the knowledge that underpins professional competence
  - experience: gaining the ability to undertake transport planning work, across much of the breadth of transport planning, as well as the competence to supervise others in some types of work. For graduates, obtaining these competences will require at least five years of post-graduation work as a transport planner.
  - the Professional Review: the final stage in obtaining the qualification in which the candidate is required to demonstrate their professional competence and personal commitment through a Portfolio of Evidence and an interview.

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<sup>&</sup>lt;sup>1</sup>The NOS are available at <a href="https://www.goskills.org/Client/industry">www.goskills.org/Client/industry</a> noc.aspx?id=9.

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- 1.7 The qualification is open to anyone with the necessary competences who is a member of either IHT or TPS.
- 1.8 This document describes the Technical Report, which any candidate who does not have a UK Honours degree is required to complete. It is complemented by "The Transport Planning Professional Qualification: Overview, Requirements and Routes" document, available at <a href="https://www.tpprofessional.org">www.tpprofessional.org</a>, with which this document should be read.
- 1.9 The next Section of this document describes the requirements of the Technical Report and the associated assessment process. It is followed by a Section on mentoring and one on further information. There are two Appendices; Appendix A contains the Section A, Technical Knowledge requirements and Appendix B the Technical Report Application form.

#### 2 The Technical Report

- 2.1 Those without a UK Honours degree need to submit a Technical Report, in which they are required to demonstrate that through their work they have achieved learning outcomes comparable to those expected of candidates with a UK Honours degree together with education or training in transport planning.
- 2.2 The learning outcomes must match the Section A, Technical Awareness and Knowledge requirements for the TPP qualification, which are set out in detail in Appendix A.
- 2.3 There are ten Section A Units, in four groups

#### **Policies and Regulations:**

- A1 The policy context
- A2 Laws and regulations

#### **Tools and Techniques**

- A3 Data
- A4 Transport models
- A5 Assessment
- A6 Stakeholder engagement

#### Design

- A7 Developing strategic and master plans for transport
- A8 Applying the principles of transport systems design

#### **Operations**

- A9 Travel Planning
- A10 The commercial and operational management of transport systems.
- 2.4 The first six Units, A1 to A6, are described as the Mandatory Set. The other four Units, A7 to A10, are described as the Choice Set, in that candidates can choose two out of these in which to demonstrate their learning outcomes in their Technical Report.
- 2.5 There are two stages in the Technical Report process.

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- 2.6 In the first stage, the candidate is required to submit a CV and brief career history, together with a synopsis of what will be covered in their Technical Report. Based on an assessment of the information provided, the TPP Professional Standards Committee decides whether the proposed report is likely to demonstrate that the candidate satisfies the learning requirements, and therefore the candidate should be permitted to proceed with submitting a full Technical Report on the lines of the synopsis, or whether there is a need for the scope of the proposed Technical Report to be revised in order for it to be likely to demonstrate the required learning outcomes.
- 2.7 The second stage is the Technical Report itself, which is a substantial document, of up to 8,000 words, covering those areas of the candidate's work that demonstrate that they have the learning required to underpin expertise required of a professional transport planner. Following an assessment of this, the TPP Professional Standards Committee will decide whether the candidate satisfies the requirements to proceed to the submission of a Portfolio of Evidence and their Professional Review.

#### Stage 1

- 2.8 For the first stage of the Technical Report process, candidates are required to submit:
  - a Technical Report application form (as included in Appendix B), including authenticated, passport-sized photograph
  - their CV, which must include a career history
  - a synopsis, no longer than 1,000 words, of what they plan to cover in their Technical Report
  - information on how they are being, or will be, mentored.
- 2.9 The submission will be considered by two trained assessors, who will advise the TPP Professional Standards Committee whether, on the basis of the information provided in the submission, the proposed report is likely to demonstrate that the candidate satisfies the learning requirements for the qualification. In making their assessment, the assessors will seek to determine the potential of the technical report to demonstrate rigorously enough that the candidate has the necessary learning outcomes.
- 2.10 Provided the Professional Standards Committee is satisfied that the candidate is likely to meet the requirements by submitting a Technical Report on the lines of the synopsis, they will be invited to do so. If the Committee is not so satisfied it will usually with the help of the Assessors advise the candidate how the scope of the proposed Technical Report might be revised in order for it to be likely to demonstrate the required learning outcomes

#### **The Technical Report**



#### Stage 2

- 2.11 The Technical Report, which must be no longer than 8,000 words, is required to follow a standard format, namely:
  - **Title page**, containing:
    - name
    - contact details
    - IHT or TPS membership number (or both)
    - report title preceded by the rubric "Technical report to demonstrate learning outcomes required of a Transport Planning Professional"
    - date
  - Contents page, listing all sections and sub-sections listed with page number references.
  - **Introduction**, stating concisely the form that the report will take and indicating the main topics, developments and points to be covered.
  - Body of the Report. This should be divided into Sections, with reference to the learning outcomes listed in Appendix A. Here the candidate has to give sufficient detail to demonstrate an understanding of the areas of knowledge, with the application of transport planning principles underpinning what they write.
- 2.12 Provided both are available, the same two assessors as were involved in the Stage 1 assessment will assess the Technical Report, and advise the TPP Professional Standards Committee on whether the candidate satisfies the requirements to proceed to the submission of a Portfolio of Evidence and their Professional Review. As part of this process, the candidate may be required to attend an interview to demonstrate the range and breadth of their knowledge and understanding of transport planning principles.

#### 3 Mentoring

- 3.1 In preparing for each stage of the TPP qualification, if at all possible, candidates should be advised by a Mentor. Usually the Mentor will be someone who understands the TPP qualification and its requirements. Ideally they will be someone who has received some training in working as a Mentor, and who is also familiar with the candidate and their work. But, if a trained Mentor is not available, an experienced transport planner who has carefully studied the TPP requirements should be able to provide useful advice.
- 3.2 If there is no one suitable within the candidate's organisation, they should contact their local IHT Branch, if they are an IHT member, or their TPS region, if a TPS member.

#### 4 Fees and Submission Dates

4.1 Information on TPP Technical Report fees is given at www.tpprofessional.org

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4.2 Technical Reports can be submitted at any time during the year.

### 5 Further information

- 5.1 Further information is available at <a href="https://www.tpprofessional.org">www.tpprofessional.org</a>
- 5.2 For advice contact:

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# The Transport Planning Professional Qualification The Technical Report Appendices



#### **Appendix**



#### **APPENDIX A**

#### Section A, Technical Requirements: Awareness and Knowledge

#### **Policies and Regulations**

These requirements are about the key frameworks within which Transport Planners work, and which they need to understand.

#### **A1 The Policy Context**

You need to demonstrate your **Knowledge** of the policy and administrative framework within which transport schemes are developed, assessed, financed, monitored and reviewed. This should include:

- the principal national, regional and local documents defining, and the main objectives of, national, regional and local policies relating to transport and the built environment, as well as proposed changes
- the structure of central, devolved or regional, and local government relating to transport
  policy and plans, the management of transport systems and the delivery of transport
  services, as well as the principal responsibilities of each of the different elements of the
  structure
- key trends in Government, regional and local policy development, and issues of growing public concern, relating to transport and the built environment
- procedures for the approval of transport policies, plans and projects.
- how to monitor and review the performance of transport policies, plans and services

You should also demonstrate an awareness of

- other related disciplines which have an impact on transport planning projects
- the need for professional and ethical conduct in transport planning, and
- knowledge and understanding of achieving safety in transport systems.

#### **A2 Laws and Regulations**

#### The Knowledge Requirements

You need to demonstrate your **Knowledge** of the framework of laws, regulations and guidance within which transport planners work. This should include:

- current statutory and regulatory requirements and guidance and best practice relating to the preparation of transport policies, plans and schemes
- how transport projects and services are funded, and the key factors pertaining to the availability of funds
- the framework of laws, regulations and guidance within which transport planners work, including
  - health and safety
  - · equality and disability discrimination
  - environmental impact
  - development planning
  - provision and operation of land transport, and of transport by air and water to the extent that you are involved directly in these.

#### **Appendix**



#### **Tools and Techniques**

These requirements relate to data, modelling and assessment in the development and assessment of transport policies, plans, projects and services.

#### A3 Data

You need to demonstrate your **Knowledge** of the collection, retrieval, analysis and interpretation of data for use in the development and assessment of transport policies, plans, projects and services. This includes::

- the principal sources of transport statistics and data, and their key characteristics
- the relationship between data and its intended application in transport planning
- the methods of data collection used for transport planning, and their relative strengths and weaknesses
- the principles of transport survey data processing and analysis.

#### A4 Models

You need to demonstrate your Knowledge of transport and traffic models and related analysis techniques in the development, design and assessment of transport policies, plans and schemes. This should include:

- the principles, key characteristics and appropriate use of the main types of transport and traffic model
- the principles of transport model system design, specification, calibration/estimation and validation, and application, including the role of data in all stages of modelling
- the potential limitations of transport models and how model outputs should be interpreted and applied
- the principles and key characteristics of the main analysis techniques used in transport
  planning, including qualitative and quantitative research, cross-sectional and longitudinal
  analyses, GIS and spatial analyses and accessibility.

#### **A5 Assessment**

You need to demonstrate your **Knowledge** of assessment techniques in the evaluation of transport policies, plans and schemes, This should include

- the principles and key characteristics of the standard assessment techniques used in transport planning, including economic evaluation, multi-criteria assessment, and the use of assessment frameworks
- the principles of monitoring the performance and impacts of transport policies, plans, including important interactions between classes of impact, the distribution of impacts, and the key underlying economic and statistical principles
- the role of data as well as potential weaknesses in the application of both assessment and monitoring techniques. .

#### **Appendix**



#### A6 Stakeholder engagement

You need to demonstrate your **Knowledge** of:

- the principles of community involvement, stakeholder engagement and public consultation in the identification of transport needs and in the development of transport policies, plans, projects and services, including the main alternative approaches and their relative effectiveness
- when it is appropriate to initiate community involvement, stakeholder engagement or public consultation programmes in a transport context
- the principal functions and responsibilities of those usually involved in community involvement, stakeholder engagement and public consultation in transport planning
- how to assess the validity of the findings of a programme of community involvement, stakeholder engagement and public consultation in transport planning
- how best to engage with those involved and the media.

#### **Appendix**



#### Design

These requirements relate to the application of transport planning expertise in the preparation of transport plans and the principles underlying the design of transport schemes.

#### A7 Developing strategic and master plans for transport

Depending on your choice of Units, you will need to demonstrate your **Awareness** or **Knowledge** of the process of developing transport plans for the medium to longer term. This should include the principles of planning practice in the development of transport plans, together with

- the key components of transport plans
- the key stages in the development of transport plans
- the principal interrelationships between transport, economic activity and land use
- determining priorities in the development of action plans
- procedures for obtaining the participation of interested parties and stakeholders in plan development
- the procedures for the formal adoption of transport plans prepared by regional and local authorities
- the procedures for the formal approval of master plans for specific sites and their environs.

#### A8 Applying the principles of transport systems design

Depending on your choice of Units, you will need to demonstrate your Awareness or Knowledge of the principal characteristics of transport systems, their relationship with integrated transport, accessibility, security, and health and safety, and how this knowledge can be used to develop and implement innovative solutions to prevailing problems, taking account of:

- the main data sources relating to the principal performance and other key characteristics of the main transport modes and systems for local, rural and inter-urban transport together with their key characteristics
- the operating and practical constraints of the main transport modes and systems
- the needs and wishes of transport users, as can be reasonably determined
- how to assess how well proposed transport systems satisfy the objectives set for them, and the main impacts of transport systems, including those on the community, the environment, the economy and other transport systems
- the principal interrelationships between transport, economic activity and land use.
- current transport statutory and regulatory requirements, guidance and procedures and best practice relating to development, planning, design and implementation of transport schemes and to design for accessibility and personal security.

The principal types or aspects of transport systems for which the required knowledge can be demonstrated include:

- highways
- streetscape design
- traffic management, calming and control
- road safety
- traffic and parking information systems
- cycling
- walking (pedestrians)
- parking
- taxis

- buses
- intermediate public transport
- voluntary and community transport
- light rail
- rail
- airports
- freight traffic and distribution
- ports

#### **Appendix**



#### **Operations**

These requirements relate to the role of transport planners in the operational management of transport systems.

#### A9 Travel Planning

Depending on your choice of Units, you will need to demonstrate your **Awareness** or **Knowledge** of the identification of sustainable travel options and their promotion to individual transport users to improve economic, social and environmental sustainability. You should know about:

- the socio-economic, health and environmental consequences of travel by different modes
- the basics of the psychology of travel behaviour
- ways of identifying existing individual and household travel patterns
- the use of appropriate "sticks" and "carrots" and of marketing and travel information campaigns in changing travel behaviour, together with their relative effectiveness
- the principles of parking management and requirements relating to the granting of planning consents, and how they can be used effectively in achieving travel behaviour change
- how to identify potential opportunities for and obstacles to changes in travel behaviour
- how to design and efficiently disseminate marketing and travel information as part of a travel planning programme
- how to test possible approaches to ensure travel planning actions are effective
- the use of targets and indicators in assessing behavioural change, including measurement difficulties
- how to monitor and evaluate travel behaviour changes, including the fiscal and health and safety implications of travel planning measures
- the different ways of ensuring 'buy-in' participation from organisations to travel plans,
- the relevant financial structures of key stakeholders in travel planning programmes, including the availability and nature of possible capital and revenue funding streams.

#### **Appendix**



#### A10 Commercial and operational management of transport systems

Depending on your choice of Units, you will need to demonstrate your **Awareness** or **Knowledge** of the operational and commercial management of transport systems and services, including specific elements of systems and services. These include:

- current statutory and regulatory requirements, guidance, best practice and procedures
  relating to operational and commercial management of transport systems and services, and
  how to assess the possible impacts of laws, regulations, staff agreements, trade union
  positions and similar constraints on changes in transport system management
- the nature of commercial risk in transport operations and how to manage it
- how to identify possible sources of, and bid for, funding for management schemes for transport.

You can demonstrate that knowledge in the context of one or more of:

- pedestrian and cycle routes and networks
- area-wide traffic and environmental management
- · traffic control systems
- · traffic and parking information systems
- transport safety
- road user charging/user toll systems
- area-wide on-street parking
- bus network and service design
- bus operations
- bus location and arrival time systems

- public transport fares and ticketing systems
- voluntary and community transport
- rail operations
- transport information systems
- aviation operations
- road freight distribution systems
- inter modal freight systems
- logistics systems
- · enforcement systems
- maintenance and asset management systems.

# **Appendix**



# APPENDIX B

The Technical Report Application Form (see next page)



#### TECHNICAL REPORT APPLICATION FORM

**PERSONAL INFORMATION** (Type or print in BLOCK CAPITALS)

Title:		Post nominal letters:
Forenames:		Surname:
Date of birth:		
Full postal address:		
		Postcode
Telephone:	Fax:	E-mail:
IHT membership no:		TPS membership no:
Employer's name:		
Employer's address:		
Telephone:	Fax:	E-mail:
Job title:		
TECHNICAL REPORT Please find enclosed:  CV and Brief Career History Technical Report Synopsis Mentor Name and Contact Details Application Fee (Cheque for current fee specified at <a href="https://www.tpprofessional.org">www.tpprofessional.org</a> made payable to IHT)		
IMPORTANT UNDERTAKING TO BE SIGNED BY THE CANDIDATE I declare that the information submitted with this Technical report application form is, in every respect, complete and accurate. I enclose 3 full copies of my application form and Technical Report		
SIGNATURE		DATE
<b>DATA PROTECTION ACT (DPA) 1998:</b> The above information is required in order to communicate with members and to fulfil the requirements of the Articles and By-laws. The IHT is required by the DPA to ensure that such data is accurate and up to date and you are requested to inform the IHT Director of Education and Membership of any changes. It is also a requirement of the Act that members resident outside the European Economic Area are informed that labels with their name and address are sent to relevant local representatives in		

Please tick here if you **do not** wish your details to be made available to others.

order to distribute information.