



Centre of Excellence

Route Map for Sponsors of New Tramways and Light Railways

An outline of the process required to identify the transport need to address opportunities created by new developments or problems already identified, determine whether Trams or Light Rail is the solution and finally take forward to implementation.

This Route Map provides a simplified guide to the development processes following the recommended Project Management practice.

UK Tram: Centre of Excellence
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1 Introduction

A major investment in transport infrastructure requires careful consideration of the Transport Need and the best way to address this need and provide an acceptable and cost-efficient solution. This is best undertaken in a structure process that analyses the needs and key objectives for the promoter in a phased approach, gaining more detail as the development progresses.

1.1 Identify Transport Issues

Before starting on such a development, it is vital to understand what the need is and where the opportunities lie.

Transport Needs usually emerge from current or developing congestion on a route or within an area of a City or Town. Changes or restrictions may have occurred within an area, e.g. parking restrictions, clean air zones, etc.

Additionally, a Transport Demand can be predicted for travel to and from new residential, retail, commercial or industrial developments or expansion or change of use of existing developments. Allow for both planned and unplanned growth.

Changes to transport needs can also occur as a result of Government or regional policy, e.g. demand for electric cars, decarbonisation agenda.

1.2 Develop Transport Objectives

The Transport Objectives are required to set the specification for any studies and will include desired outcomes in terms of connectivity outcomes, timescales and costs, as well as an understanding of what the different available modes can offer.

1.3 Develop initial Transport Case

With all such new development proposals, a Transport Study should be undertaken to demonstrate whether or not existing transport links are adequate and where not, how it is deficient and what mode would be most suitable.

As part of the initial transport case, there should be a good systems engineering based design for the proposed corridor. This will form a sound basis for the design development throughout the project.

This Transport Study must not be considered in isolation, but should include the whole city impacts including all known, planned or strategic plans that are available. This will require Local Transport Authority input and consideration and initial local consultations. There will be several strands to this study looking at the demand, corridors, mode options and order of magnitude cost. It is likely that any solution involving changes to infrastructure will require new statutory powers (such as Transport and Work Act orders, Compulsory Purchase Orders, Open Space Orders, Listed Building Consents etc). These should be considered at this stage as they could change the chosen route options and thus affect costs and timescales.

Engagement with core stakeholders is critical as part of the section 1 activities, and should be commenced at this stage. This should include the local authority, the Highways Authority, and Network Rail or other railway Infrastructure Manager for any activity on or near their infrastructure. In this connection, parallel running or interchanges will require asset protection agreements, taking over old railway formation still in NR ownership will require additional agreements such as change of ownership or designation, shared operation will require close collaboration with the Route and an understanding of the compatibility requirements (see Tram Train Learning Platform). Advice can be sought from the UKTram Centre of Excellence or the Network Rail light rail team.

The results of this study will determine whether or not there is a case for transport improvements and advise the decision to progress to the next level of detail.

1.4 Initial Business Case

This business case would be supported by more extensive studies confirming the transport case, route feasibilities, scoping the environmental considerations and refining the costs and benefits. With the better understanding of costs, funding options are explored. DfT/HMT WebTAG (STAG in Scotland) principles would be used in the development of the Business Case.

The degree of certainty should be greater at this stage and if value for money and affordability are demonstrated, there would be a good case to take the project forward to a Final Business Case based on an outline design, Environmental Analysis and the results of initial Local and Statutory Consultations and a full WebTAG Economic Case embodied in the Full Business Case report.

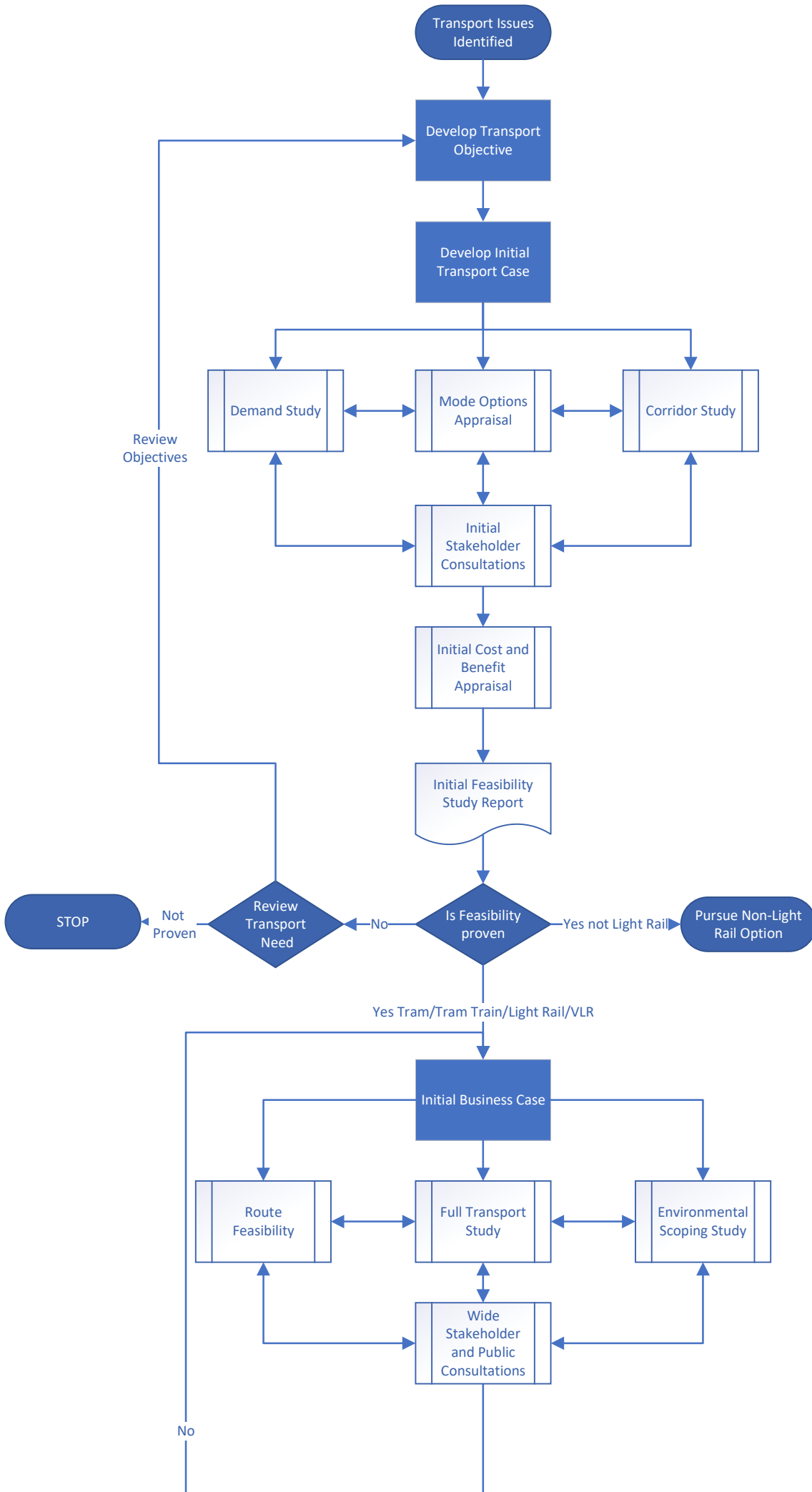
1.5 Authority to Proceed

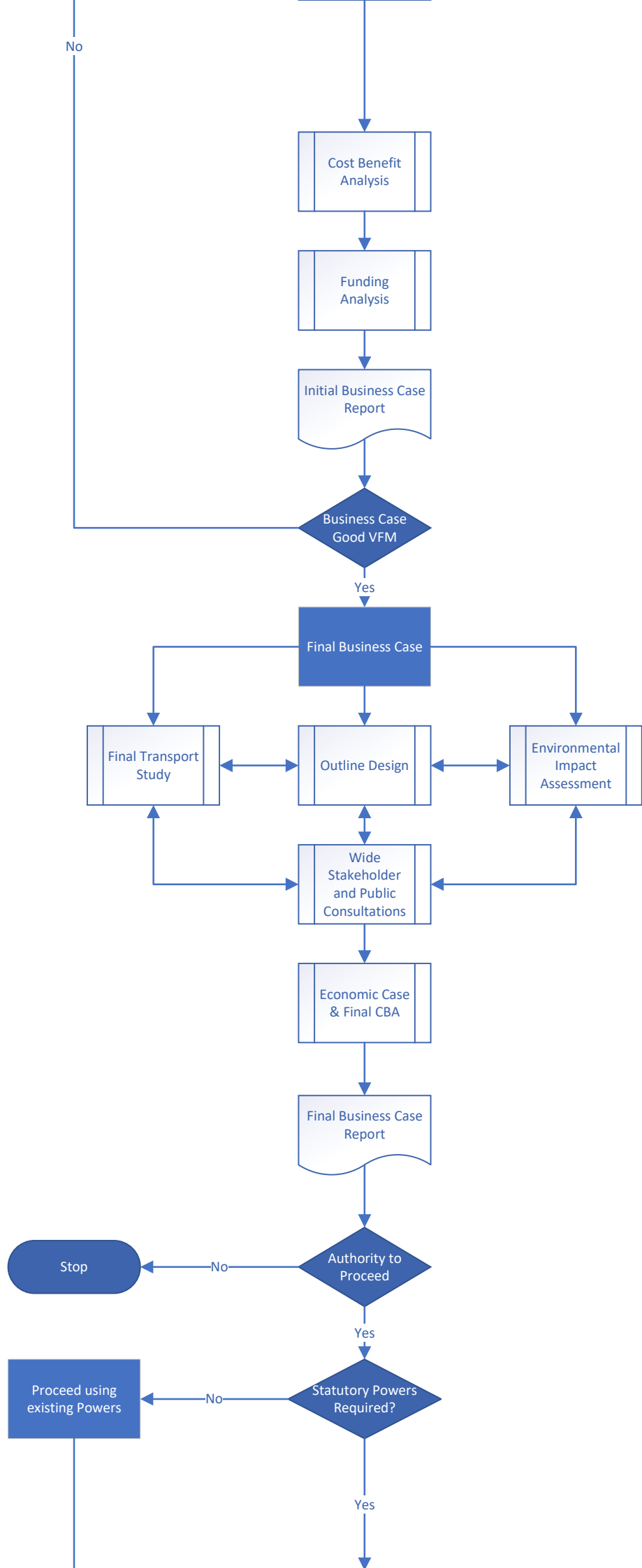
Unless it can be demonstrated that Statutory Powers already exist, it should be assumed that new Powers are required and usually gained through an application for an Order under the Transport and Work Act 1992 (as amended). Further details of this process are shown later.

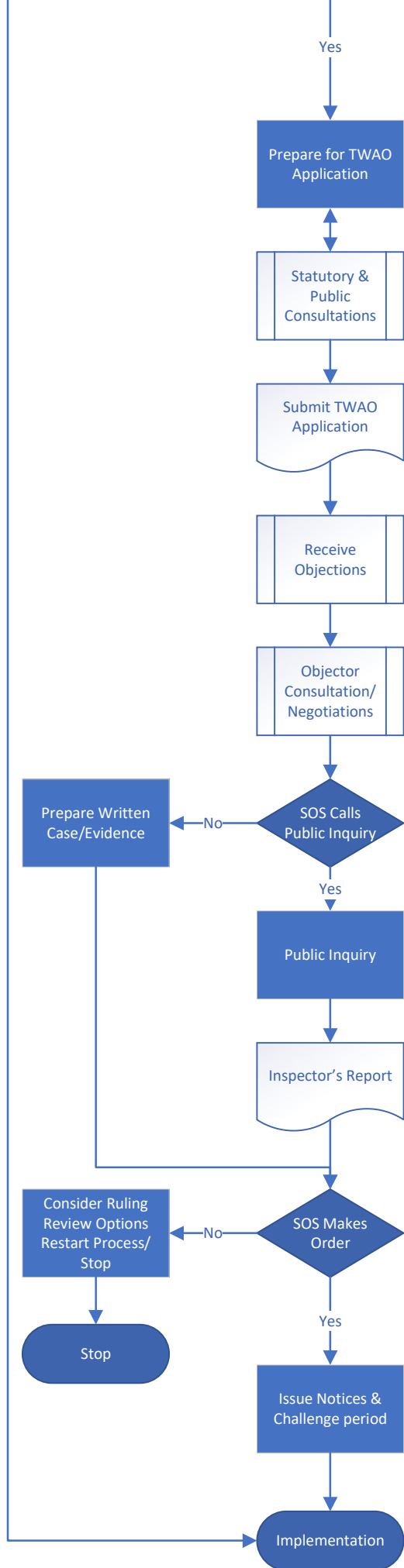
When a promoter submits a TWAO application, they should be at the stage of having a draft final Business Case as this is usually submitted as a supporting document to the Statement of Case. There is a reluctance by government (central or local) to give final approval until all statutory powers are also secured, i.e. the promoter must have the powers to spend the money before the funding is approved.

Once Authority to Proceed is granted, usually a Political Decision based on the Final Business Case, it is time to secure Statutory Powers to enable legal implementation with all the benefits and responsibilities that such Powers provide.

Below is a Flow Chart of this development process is shown below with clickable links to more detailed information.







2 Phase 1 study – Transportation Case

2.1 Demand Study

First step: Look at a map! See what the structure of the city is, the pattern of settlements, the main flows of people and where the main transport corridors are or are planned to be (as aligned to Local Transport Plans, redevelopment etc).

Where are the main trip generators / attractors?

- City centre / Central Business District
- Railway station
- Bus station
- Coach Station
- Airport
- Park and ride
- University / Colleges
- Business park
- Retail park
- Housing or other development
- Sports or other stadia
- Hospital
- Regeneration area
- Other national (transport) development e.g. HS2, Commonwealth Games etc

Are there any satellite settlements or new developments?

- Think Altrincham or Bury (Manchester); Meadowhall (Sheffield); Beeston (Nottingham)

What is the population of the area? Most light rail systems are in larger cities with large passenger flows, but note that there are some European examples of low population cities which have successfully justified and implemented tramways.

In a smaller city, are there other factors to make light rail a more feasible option? For example:

- Tourists (Bath, Blackpool)
- University population (Oxford)
- Restrictive geography (Bath, Portsmouth)
- City within a city (Croydon, Stratford, Coventry, Rotherham)
- Concert / Football / Sporting event etc event attractors
- Airport
- Connecting an area to an existing heavy rail system i.e. feeder

Availability of “easy corridor” (e.g. disused / convertible railway) but bear in mind when assessing a disused railway what has changed since it closed as well as it being disused for a reason. Restoring Your Railways will open up a number of such opportunities where light rail, VLR or tram train could be an option

2.2 Mode options appraisal

Mode options :

- Cycle
- Walk

- Car
- Car share
- Dial a ride
- On demand bus
- Bus
- BRT
- Tram
- LRT
- VLR (Very Light Rail)
- Tram-train - Shared heavy rail/tram train, metro, VLR
- Metro
- Suburban railway

It can assume that

- (a) The initial analysis has shown that some form of public transport is required
- (b) Metros and suburban railways are likely to be an option only for larger cities, not any city we are likely to be studying. But consider the decision tree process to tease out best mode options, which might throw up all modes. The impact of the Restoring your Railway initiative has changed the traditional thinking about modal choice
- (c) So, the reasonably likely choices are: Bus, BRT, Tram, Light rail, VLR, Tram-train.

Wider connectivity and integration of modes should be considered when doing the mode option appraisal

Mode selection at this and other stages, especially where Network Rail infrastructure is involved, can be undertaken with the decision tree tool currently under development by Network Rail as part of the Restoring Your Railways initiative. This currently concentrates on light rail modes but can be extended to cover all transport modes.

2.3 Corridor Study

Identify the main transport corridors. Include current and potential transport corridors. When identifying the initial corridor (line 1) consider the wider network opportunities and future proof with prioritisation.

What is the existing transport provision along the corridor?

- Road, Rail, Bus or other public transport.

Is there road space for LR or can road space be made available if the corridor is already congested? Depends on the willingness of Local Authority etc

Also consider anything in the corridor that may cause disruption to the LR (eg annual street carnival, or sometimes roads closed during peak flows of football matches etc)

Identify your Line 1 (and have an idea what is Line 2), – including the criteria for why it is preferred

Estimate the demand:

- Amount of road traffic

- Frequency of buses – estimate potential hourly flow (needs to be around 1500 pphd for a viable tramway). Consider whether it is intended to replace all buses by LR, or only some of them (and remember that bus operators might not agree).
- Make an allowance for trip generation (add 50 to 100 percent) * η
- (find suitable value for η from the Demand Black Book –around 0.7)
- When estimating the demand in relation to the preferred mode, factor journey time and congestion factors as well as simply pphd

Look at specific attractors and estimate number of trips of and different types, peak flows, etc:

- University (number of students, factor for number living in, factor for car trips)
- Hospital (staff, visitors, outpatients)
- Shopping centre (footfall, factor for number of p.t. trips)
- Railway station (estimate from number of trains per hour)
- Sporting / concert events – occasional events but with very high peak flows in short period(s) of time, sometimes coinciding with regular peak demands in the city
- Leisure attractions in the area
- Airport – possibly 24 hour demand
- Existing and proposed business parks

2.4 Initial Stakeholder Consultations

Early Stage Consultations should be undertaken with significant stakeholders such as:

- Local Transport and Planning Authorities to gauge support and alignment to Planning Policies.
- Major affected stakeholders such as Network Rail if the proposed alignment goes alongside or uses (Tram Train) their infrastructure.
- Some Public Consultation may be beneficial to gauge public support.

2.5 Initial Cost and Benefit Appraisal

The initial outputs from the corridor and demand studies should be used to gauge whether a positive economic case is likely based on assessed costs and transport/environmental benefits but recognising the need for significant contingency in line with Treasury Optimism Bias recommendations.

2.6 Initial Feasibility Report

The findings from the above studies should be assembled into an Initial or Pre-Feasibility Report with conclusions on the proposal's feasibility and recommendations for future development work.

3 Phase 2 study – Initial Business Case

3.1 Prepare Brief for study

3.2 Full Transportation Study (is there likely to be a Case to be progressed?)

- Identify and quantify need (Proposed/Existing origins and destinations – Residential /Educational /Commercial /Business /Entertainment /Shopping /Hospitals /P&R)
- Corridor Options
- Corridor demands study, including engagement with Network Rail for any activity on or near their infrastructure
- Suitability of modes to meet the need, i.e. volume of people, corridors to be served, potential funding available etc [to confirm tramway is this mode and if it is a first route of a tramway i.e. new for the area suggest this is formally signed off – assists later in TWA Order stage]
- Include whole journey options, interchange nodes and other modes

3.3 Route Feasibility (Basic route assessment for tramway construction and tram stops – will it fit etc?)

- If the scheme is not being promoted by a Local Authority, engage with any relevant Local Authorities, including on a technical basis, as Highway Authority and Planning Authority.
- Enter into informal Local Consultations with local residents, businesses and interest groups. Consultation can be with different stakeholders at different stages (eg initially local authorities, influencers and key stakeholders – people in previous section for example)
- Is purchase of land required (not just amount and cost but Open Space etc)?
- Are powers and consents required? This might include TWA, CPO, Listed Building Consent, Open Space etc. These must be considered as they may affect business case / timescales, even the route itself. Even if formal / statutory powers are not required, there may be a need for a number of third party agreements with major stakeholders / landowners etc (including hospitals, airports etc) at this stage to get buy in and also input (so they won't object to a stop outside their property etc and thus negate some of the demand that is predicted/modelled).
- If the route either uses or runs close to Network Rail lines, then Network Rail should be involved from the start. They are likely to have conditions that could affect the design or may require alterations to the main line systems. (EMC and interference with signalling and power systems are usually the main concern, although anything that could affect NR operations, infrastructure, drainage and the like may require consideration)

3.4 Environmental Scoping Study

The identification of the environmental impacts and benefits should be scoped to provide input into the initial Business Case and the requirements for the full Environmental Impact Assessment.

3.5 Stakeholder and Public Consultations

- Further engagement with Local Authorities, Utilities and if appropriate, Network Rail or other Rail Infrastructure Managers
- Consult with residents, landowners and anyone whose rights are affected along the route.
- Consult widely to gauge public support and resistance.

- 3.6 Order of magnitude estimates (Construction, Operation, Maintenance & Revenue).
- 3.7 WebTAG based Cost Benefit Analysis
Undertake using the principles set out in WebTAG (if you require public funding) to prepare an initial Cost Benefit Analysis to gauge the Value for Money of the proposal and determine where improvement may be required in terms of service and costs if required.
- 3.8 Identify Funding Options (Central Government/LEP/Local Authority/Private, WPL etc)
- 3.9 Initial Business Case with caveats
WebTAG Principles used to prepare NPV & BCR including economic benefits as well as financial case. Prepare an Initial Business Case Report that will assess the Value for Money (VfM) and inform the Promoter whether proceed to the Outline Design stage and Final Business Case.
- 3.10 Recommendations for future studies (*routes with a chance*)
- 3.11 Next Stage (Stop or proceed to Final Business Case)

4 Final Business Case

4.1 Prepare Brief for study and engage suitably experienced transport assessors and engineering support (if not in house)

4.2 Final Transportation Study

- Robust Study to identify Transport Need and Demand levels for a range of route options including projected growth – specified time horizon.
- Review demand against transport modes. Consider the whole journey integration of modes – aim for a seamless journey from origin to destination
- Identify Economic Benefits (Societal, Environmental, Regeneration and Employment)
- Estimate of revenues

4.3 Outline Design

- Outline design should build on the Systems Engineering design undertaken at the start of the project (see section 1) building on the detail identified through the mode and route selection processes
- For those route options worth pursuing, rank into priority order and suggest phasing plan. [This must also have a consideration of land requirements, any potential show stoppers for TWA Orders etc as this may be crucial evidence for the TWA Order process.]
- Outline Design for Preferred Option. This will become the basis of the TWA Order Drawings
- Estimate of costs with initial risk assessment.

4.4 Environmental Impact Assessment

A full Environmental Impact Assessment should be undertaken on the Outline Design based the statutory requirements and studying the environmental, societal and economic impacts. Mitigations for significant impacts should be incorporated into the designs. This assessment will form the basis of the Environmental Statement prepared for Planning and TWAO applications.

4.5 Engage with Local Authorities

Engagement with Local Authorities when the final documentation (specifically planning, works and land plans, etc) has been prepared.

They should be consulted (in some format depending on the relationship between the promoter and the Local Authority). If too late, the risk is delay to submission due to changing application documents or they may have to go through their own approval/governance process before the TWA application is submitted, or they object to the TWA Order application if no previous consultation.

4.6 Engage with major stakeholders and public along a preferred route.

- This especially includes engagement with utility companies. Consult with the owners to enable best management of utility diversion, Failure to do so can add significant cost as it can result in late design changes
- Consult with residents, landowners and anyone whose rights are affected along the route.
- Consult widely to gauge public support and resistance.

4.7 Undertake a full WebTAG appraisal and Cost Benefit Analysis

Determine the Value for Money, affordability and financing strategy based on the benefits from the transport study and the costs from the outline design.

4.8 Final Business Case

Prepare a Final Business Case Report bringing together outputs from all the above studies and presenting the case for the project. The conclusions and recommendations of this report will be used seek investment authority and to proceed to apply for Statutory Powers.

4.9 Seek authority to proceed to TWAO.

5 Preparation for the submission of an application for a TWA Order

(Note: a fuller account is included in Appendix 1)

5.1 Engage suitably experienced Parliamentary Agents

Parliamentary Agents give expert advice regarding the need and requirements for Statutory Powers. It may be advisable to engage a QC or Counsel (usually through the Parliamentary Agents) to provide any specific expert advice on the documentation and the preparation for a Public Inquiry.

5.2 Engage suitably experienced engineering consultants.

The consultants must that have experience with TWA Orders and preparing the relevant documents required and to a required state.

5.3 Engage a suitably experienced land referencing firm.

The land referencing firm must have experience with TWA Orders and preparing the relevant documents and notices.

5.4 Contents of TWAO submission

Avoid putting anything in the TWAO submission that might create new hazards/risks or increase those already identified. This can add significant cost as they can result in late design change

5.5 Outline Design

Refine the outline design ensuring it includes:

- Define the track alignment and any structures,
- identify all land that is required to construct, operate and maintain the scheme including that require both temporarily and permanently.
- electrical systems, including OLE Structures, sub-stations, electrical supply feeds and land requirements for electrical systems. Get reliable good quality traction power modelling ahead of OLE design and substation location selection
- Depots and control centres and land requirements for buildings and temporary land for construction.
- Identify and utilities that are affected by the track and other constructions.
- Identify any public or private rights including rights of way and other right affected by the proposals.
- Prepare an Estimate of the Costs of the scheme
- Sign off outline design (informally / formally as required)

5.6 Undertake/Finalise Statutory and Other Consultation

- Prepare a stakeholder and engagement strategy to ensure that all statutory stakeholders have been consulted and any wider public.
- Third party agreements may be required to prevent objections

5.7 Prepare Environmental Scoping Report in accordance with statutory requirements and sent to TWA Orders Unit in line with TWA Order Rules

5.8 Environmental Impact Assessment

- Undertake Environmental Impact Assessment and identify those any aspects that will need mitigation within the outline design.

5.9 Prepare Environmental Statement based on the Environmental Impact Assessment already prepared.

5.10 Prepare TWA Order Documents

Prepare the full range of documents required by the TWA and any supporting reports. The Parliamentary Agents and Counsel will advise and review these documents against the requirements of the Act.

- Draft Order using the Tramway standard clauses amended as required based on the powers required.
- Plans and Sections of the proposed works.
- Book of Reference and Land Plans.
- Environmental Statement including Appendices and Non-Technical Summary.
- Prepare the Estimate of Cost.
- Prepare plans showing the diversion of any public footpaths, Traffic Regulation Orders being sought and, if appropriate, any crown land included within the application
- Section 90(2A) Request for Planning including plans in consultation with the relevant Local Authorities
- Report of Consultations Undertaken
- Other documents: as required
- The Fee.

6 Transport and Works Act 1992 (as amended) Draft order application, Notices and Public Inquiry

(Note: Click here for a fuller account that is included in Appendix 1)

6.1 Depositing the Application

The Parliamentary Agents submit the application to the TWA Unit at the Department for Transport including the Fee.

- Post required notices, land references with evidence and Affidavit that all notices have been posted and have been maintained for the statutory period.
- All of the documents to be deposited at suitable locations along the routes
- All of the documents to be available.
- A link to the Environmental Statement to be sent to the TWA Orders Unit.
- Objectors to the proposal may submit objections to the TWA Orders Unit within the six week objection period.

6.2 Objections

- Early consultations will greatly reduce the objections or lead to acceptable solutions ahead of the public inquiry.
- Review likely objections and prepare resolution options.
- TWA Orders Unit will issue copies of all accepted Objections to the Promoter.
- The promoter must engage with all objectors and prepare responses.
- Assistance may be required from Legal, Technical or other advisors to address Objections.

6.3 Secretary of State determines whether to call a Public Inquiry

Four weeks after the end of the objection period, the Secretary of State (SoS) will determine whether there is a need for a Public Inquiry based on the objections made and any progress following initial consultations with the Objectors.

6.4 Preparation for the Public Inquiry

- Statement of Case is to be submitted 6 weeks after announcement of Inquiry.
- Promoter will agree a suitable venue and the dates for the Public Inquiry with the TWA Order Unit who will confirm the Inspector. The Inquiry must open within 22 weeks of the SoS decision to hold the Inquiry.
- A pre inquiry meeting may be held where only procedural matters are discussed
- Within 12 weeks of calling an Inquiry, the SoS will publish their Statement of Matters.
- Expert Witnesses will be required to support the Statement of Case and the rebuttal of Objector's evidence and answer the Statement of Matters.
- Objectors are required to confirm they are attending the inquiry or whether they are submitted written evidence. The promoter and any objectors attending the inquiry confirm their witnesses and cross examination.
- Continue to engage with objectors
- Expert Witness will prepare Proofs of Evidence which must be submitted four weeks before the opening of the Inquiry.
- Any rebuttal evidence for Objector's Proofs of Evidence must be submitted two weeks before the opening of the Inquiry.
- Domestic arrangements for the Inquiry need to be agreed with the Inspector. All his costs will be met by the promoter.

6.5 The Public Inquiry

- The Inspector runs the Inquiry; the timetable can be flexible depending on points raised and whether any objectors withdraw during the Inquiry period etc..
- Copies of all the TWA submission documents should be available at the Inquiry for use by the promoter's team and for the public.
- The Promoter's QC will provide an opening statement then state the case for the proposal with expert witnesses supporting this case.
- Objectors will be able to present their cases and proofs of evidence.
- All witnesses are subject to examination and cross-examination.
- The promoter may be required to produce further details for the Inspector at short notice.
- Supporters will also be able to make their case for the scheme.
- Once all evidence has been received and objectors heard, the Promoter's Counsel will sum up the promoter's case and Objectors can sum up their cases. In both cases no additional points may be included.
- The Inspector will conclude proceedings with a summary of the cases and how the process will proceed until the Inspector's Report is finalised and Submitted to the SoS.

6.6 Post Inquiry

- Inquiry Inspector writes their report, there are no statutory timescales for this.
- Report will make recommendations as to whether the TWA Order should be granted and recommend any changes or conditions that should be applied.
- On receipt of the Report, the TWA Unit at the DfT will scrutinise the.
- A Minister, not involved with the Project, will review the report and recommend to the SoS whether or not the Order should be granted. The timing of granting the suit an opportunity for a Political announcement.
- When the TWA Order has been made, the Parliamentary Agents will post notices in newspapers.
- The land referencers will refresh the land referencing data and serves 14(A) notices to all those in the Book of Reference to state the TWA Order has been made.
- Following the announcement that the SoS has determined to make the Order, there is a six week challenger period.
- Three weeks thereafter the TWA Order is made it comes into force.
- It is useful for the Promoter to prepare a commitments and requirements tracker to encompass any commitments or requirements embedded in the Order. These can be tracked through detailed design, construction and operation of the scheme.

7 Project Implementation

7.1 Time to start physical works

- The Works and Land Powers within the TWA Order will need to be implemented before ten years from the date the TWA Order comes into force.
- The Powers for Land Acquisition within the TWA Order will need to be implemented within five years of the TWA Order coming into force.

7.2 Project Implementation

- It must be emphasised that the initial outline design should be done at a much earlier stage, and should be of sufficient quality to prevent consultants starting from scratch. This may need good quality project management from the promoter
- Detailed Design work may have already started during the progression of the TWA Order application but this would be at the promoter's risk, but should not be seen as pre-empting the granting of the Order.
- Any Undertakings given to affected parties/objectors and any conditions applied to the Order should be tracked to ensure that they have been or will be complied with.
- The set timescales for compulsory purchase and access to land should be integrated into the Project Schedule including a schedule of when the relevant notices need to be served on third parties.
- Utility moves and road closures should be planned carefully with the utility companies and the highways authority
- Following the deemed planning consent provided under the TWA Order, the detailed planning consent should be progressed with the local planning authority.
- Any areas of operational land where Permitted Development Rights apply should be agreed with the local planning authority to avoid future misunderstandings.
- The Code of Construction Practice Part 2 needs to be prepared and agreed by the Local Authority and with any Considerate Contractor Schemes, adopted.
- Within these constraints, the scheme can be implemented through to commissioning and acceptance stages.

7.3 Bringing the completed tramway into service

- The ROGS (Railways and Other Guided Systems) regulations describe the process for bringing a Tramway or Light Rail system into service.
- This requires Safety Verification by an Independent Competent Person. This process should start with the early stages of the design and continue right through implementation and commissioning.
- The safe operation of the system will be subject to regulation by the Railway Inspectorate part of the Office of Rail and Road. Again, it is wise to involve them throughout the process.

7.4 Tram Train systems using Network Rail Infrastructure

- Network Rail should be involved from the conception of the project. See Section 1 Using Network Rail infrastructure will require application of railway standards. This will add to the approvals processes and involve main line process based on the "Interoperability Regulations". Common processes can be applied so that both approval regulations can use one set of safety assessment. The Common Safety Method has been applied successfully to both processes saving considerably on the overall approvals effort.
- A TWA Order may still be required as per the case of the Tinsley Chord TWA for Sheffield.

8 Light Rail and Very Light Rail on Branch Lines

Introducing Light Rail or Very Light Rail onto Existing or Closed Branch lines will have a different set of requirements that need to be considered.

All the processes regarding the Transportation and Business Case apply.

If the Branch line is currently in use, existing powers are likely to be extant, however a TWA Order may still be required for a different rail mode, even if the branch line remains in Network Rail ownership. Expert Legal advice would be required to conclude the matter.

Where the Branch Line has been abandoned, the tracks lifted, and ownership passed to BRB Residual, now with the Highways Agency, or sold, the question of TWA Order Powers still must be investigated for a different rail mode as above. If the original Powers are considered to have lapsed, then new Powers would be required and thus a TWA Order would need to be applied for. Expert Legal advice would be required in this case.

If the whole route can be isolated from the other main line train services, such as with the Stourbridge Junction to Stourbridge Town Branch, Deviations from normal NR and Railway Group Standards.

APPENDIX 1

Transport and Works Act Procedure – Detailed Description

1 Preparation for the submission of an application for a TWA Order

1.1 Engage suitably experienced Parliamentary Agents

Parliamentary Agents will give expert advice regarding the need and requirements for Statutory Powers and an Order under the Transport and Works Act 1992 (as amended) and provide advice as and when required, including on the Environmental Statement. Depending on the complexity of the scheme, it may be advisable to engage a QC or Counsel (usually through the Parliamentary Agents) to provide any specific expert advice on the scheme and on the Environmental Statement and other documents, if required.

1.2 Engage a suitably experienced engineering consultant that has experience with TWA Orders and preparing the relevant documents required and to a required state. *[Ideally you want continuity with those having done the above feasibility work so at an earlier stage when engaging design assistance, experience of TWA Orders should be a consideration.]*

1.3 Engage a suitably experienced land referencing firm that has experience with TWA Orders and preparing the relevant documents and notices including maintenance of them.

1.4 Avoid putting anything in the TWAO submission that might create new hazards/risks or increase those already identified. This can add significant cost as they can result in late design change

1.5 Outline Design

Refine the outline design ensuring it includes:

- track alignment, any structures,
- identify all land that is required to construct, operate and maintain the scheme including for running lines and temporary land required for construction such as work and storage sites, as well as access for operational maintenance etc.
- electrical systems, including OLE Structures, sub-stations, electrical supply feeds and land requirements for electrical systems. Get reliable good quality traction power modelling ahead of OLE design and substation location selection
- Any signalling and control systems
- Depots and control centres and land requirements for buildings and temporary land for construction.
- Access and loading strategy (especially in a town or city centre) demonstrating how existing access routes will be maintained / altered and thus feed into the land requirements and any Traffic Regulation Orders in the TWA Order and tease out stakeholders)
- technical reports to demonstrate the justification of the scheme, for example, from the route itself to why a substation proposed on a particular piece of land, construction report to justify compounds, cellars resistance report etc.

- ensure that the design incorporates all relevant regulations, standards and guidance, e.g. UKTram Guidance Notes, LRSSB standards, guidance and standards on safety, accessibility and interaction with road traffic.
- Identify and utilities that are affected by the track and other constructions. Enter into consultations with the Utility companies regarding the need for diversions or safeguarding Utility companies' plant, or alteration of the design to avoid costly diversions etc.
- Identify any public or private rights including rights of way and other right affected by the proposals. Enter into consultations with the responsible public authority and private individuals or other bodies affected.
- Finalise Transportation Case
- Prepare an Estimate of the Costs of the scheme
- Finalise Draft of the Business Case and submit to DfT (after the promoters required internal processes)
- Sign off outline design (informally / formally as required)
- If there is any Crown Land within the Application, this cannot be acquired compulsorily (this should have been considered and mitigated in design or route options in previous development phases of the scheme) and if any Secretary of State has any lease / land interested affected by the scheme, the TWA Order will not be made until written confirmation that they have no objection to the scheme has been received.
- Similarly, an open space land should previously have been identified and considered /mitigated / avoided in previous development phases. However, if there is land that is open space over which permanent powers of acquisition or rights are sought and this area is over 250 square feet, the TWA Order will be subject to Special Parliamentary Procedure (SPP). To avoid SPP, the Promoter would need to seek alternative land as open space or seek to acquire the land by private agreement.

1.6 Undertake/Finalise Statutory and Other Consultation

- Prepare a stakeholder and engagement strategy to ensure that all statutory stakeholders have been consulted (Schedules 5 and 6 of the TWA Order Rules) including technical consultations (ES and utility companies) and also to list any other (wider) public engagements i.e. with affected parties and be open to anyone who may be interested.
- If the promoter has not undertaken a TWA Order application previously, the Parliamentary Agents can assist. The land referencing undertaken so far will be able to assist with this exercise. [to note, promoters to not, as a rule, contact the TWA Order Unit at the DfT, it is done through Parliamentary Agents]
- Third party agreements may be required (by the other party, not just the promoter) to prevent objections / secure land for example if CPO / works powers cannot be secured through a TWA (e.g. Crown Land, Open Space) or to avoid an additional process e.g. Special Parliamentary Procedure as noted in the preceding section
- Newspaper notices ahead of the application will be prepared by the Parliamentary Agents and post those required ahead of the application. The land referencers with assistance from the Parliamentary Agents, will prepare statutory site notices that will be required when Draft Order Application is deposited.

1.7 Prepare Environmental Scoping Report in accordance with statutory requirements and sent to TWA Orders Unit in line with TWA Order Rules

1.8 Environmental Impact Assessment

- Undertake Environmental Impact Assessment and identify those any aspects that will need mitigation within the outline design.

1.9 Prepare Environmental Statement based on the Environmental Impact Assessment already prepared.

1.10 Prepare TWA Order Documents

- Depending on the experience of the promoter and the particular documents, the Parliamentary Agent will assist or oversee the preparation of the TWA Order Documents. The advice of the QC or Counsel may be sought for comment on the Environmental Statement
- The Parliamentary Agents will prepare Draft Order and Explanatory Memorandum using the Tramway standard clauses amended as required based on the powers required. This will be shared with the TWA Order Unit.
- Prepare Works Plans and Sections that show the horizontal and vertical track alignments, the limits of deviation, start and finish of any structures, limits of other land or rights required either permanently or temporarily.
- Land references to prepare the Book of Reference and Land Plans (these plans can be composite plans with the works plans) detailing the ownerships, leases, tenants and occupiers of all land within the limits of deviation and any other land or rights required.
- Prepare the Environmental Statement including Appendices and Non-Technical Summary.
- Prepare the Estimate of Cost (as specified in the TWA Order Rules).
- Prepare plans showing the diversion of any public footpaths, Traffic Regulation Orders being sought and, if appropriate, any crown land included within the application
- Section 90(2A) Request for Planning including plans in consultation with the relevant Local Authorities
- Report of Consultations Undertaken
- Other documents: Concise Statement of Aims, Declaration of the Status of the Applicant, List of Consents (including Listed Building Consents etc), Funding Statement, Application Letter as required by the Act
- The Fee (calculated by the Parliamentary Agents as related to the specifics in the application.

2 Transport and Works Act 1992 as amended Draft order application, Notices and Public Inquiry

2.1 Depositing the Application

- The Parliamentary Agents submit the application to the TWA Unit at the Department for Transport including the Fee.
- Parliamentary Agents post required notices, land references send / deliver all notices required relating to the Book of Reference. Evidence and Affidavit that all notices have been posted and have been maintained for the statutory period is required.
- All of the documents to be made available at locations along the routes as required by the TWA Order Rules
- All of the documents to be available on line and available for purchase if required.
- A link to the Environmental Statement to be sent to the TWA Orders Unit.
- Objectors to the proposal may submit objections to the TWA Orders Unit within the six week objection period.

2.2 Objections

- Once again it should be noted that early consultation with all stakeholders, starting at the concept stage, will greatly reduce the objections or lead to acceptable solutions ahead of the public inquiry.
- Ahead of objections being received (or even before the application is deposited) undertake a review of the likely objectors and their points of objection and possible ways to resolve any issues.
- The promoter will receive a copy of all Objections received by the TWA Orders Unit, this may include any submitted outside of the six week period.
- The promoter must engage with all objectors and provide a response to all concerns / objections raised.
- Depending on the experience / size of the promoter's team and the number and complexity of objections, assistance may be required for management or relating to particular objectors from Legal, technical or other advisors.

2.3 Public Inquiry Decision

Four weeks after the end of the objection period, the Secretary of State (SoS) will determine whether there is a need for a Public Inquiry based on the objections made and progress with them. The promoter may request a deferment of this decision to gain more time in dealing with objectors. The SoS may determine that it is more appropriate to proceed with written representations.

2.4 Preparation for the Public Inquiry

- Six weeks after the SoS has announced there is to be an Inquiry, the promoter and any remaining objector must produce and submit to the TWA Orders Unit a Statement of Case. The promoter will receive a copy of all objector documents and must deposit their Statement of Case with the other documents on display and on line.
- Determine a suitable venue along the route for the Public Inquiry and submit details to the TWA Order Unit who will confirm a date (dependant on availability of an Inspector and in consultation with the promoter); the Inquiry must open before 22 weeks from the decision an Inquiry was to be held
- A pre-inquiry meeting may be held where only procedural matters are discussed

- With the QC and Parliamentary Agents, determine the areas where Expert Witnesses will be required and engage them from those already engaged on the scheme or specific experts (e.g. noise, EMC) if required
- The Inspector appointed for the Inquiry may require the promoters to engage a Programme Officer to work for them
- Objectors are required to confirm they are attending the inquiry or whether they are submitted written evidence. The promoter and any objectors attending the inquiry confirm their witnesses and cross examination.
- Continue to engage with objectors
- Not more than 12 weeks after the announcement that an Inquiry was to be held, the SoS will publish their Statement of Matters that will need a response from the promoter at the inquiry.
- Witnesses must prepare Proofs of Evidence, reviewed by the Parliamentary Agents and QC.
- Proofs to be submitted by the promoter's witnesses and any objectors and their representatives four weeks before the opening of the Inquiry.
- Once the Proofs of Evidence from Objectors are received, rebuttal evidence may need to be prepared by witnesses and submitted two weeks before the opening of the Inquiry.
- Domestic arrangements for the Inquiry need to be agreed with the Inspector or his Programme Officer including layout of the main inquiry room, he and also any programme officer will also require office rooms. All his costs will be met by the promoter (at a later date)
- The promoter will probably need at least one room for an office, and may be required to provide an officer for objectors.

2.5 The Public Inquiry

- The Inspector runs the Inquiry; the timetable can be flexible depending on points raised and whether any objectors withdraw during the Inquiry period etc.
- Copies of all the TWA submission documents should be available at the Inquiry for use by the promoter's team and for the public. If the Inquiry is to focus on environment issues for example, extra copies of the Environmental Statement should be available.
- The Promoter's QC will provide an opening statement then state the case for the proposal with expert witnesses supporting this case. These witnesses will be subject to examination by the Inspector and cross-examination by Objectors or their Counsels.
- Objectors will be able to present their cases and proofs of evidence, again any witnesses subject to examination and cross-examination by the promoter's Counsel.
- The promoter may be required to produce at short notice (often overnight) further details or options to mitigate objections or provide additional information for the Inspector.
- Supporters will also be able to make their case for the scheme if previously notified to the Inspector.
- No objectors can turn up to the Inquiry and speak if they previously stated they were not attending and no member of the public or third party can speak. They may only be given chance to speak at the discretion of the Inspector.
- Once all evidence has been received and objectors heard, the Promoter's Counsel will sum up the promoter's case and Objectors can sum up their cases. In both cases no additional points may be included.
- The Inspector will conclude proceedings with a summary of the cases and how the process will proceed until the Inspector's Report is finalised and Submitted to the SoS.

2.6 Post Inquiry

- Inquiry Inspector writes their report, there are no statutory timescales for this.
- Report will make recommendations as to whether the TWA Order should be granted and recommend any changes or conditions that should be applied.
- On receipt of the Report, the TWA Unit at the DfT will scrutinise the Report and ensure that process has been applied properly and that it would not be susceptible to a Judicial Review. There is no set timescale for determination of the TWA Order but it is usually indicated by the TWA Orders Unit to be 6 months.
- A Minister, not involved with the Project, will review the report and recommend to the SoS whether or not the Order should be granted. The timing of granting the order may be quick for uncontentious and low profile Orders, but others may be delayed to suit an opportunity for a Political announcement.
- When the TWA Order has been determined, the Parliamentary Agents will post notices in newspapers.
- The land referencers will refresh the land referencing data and serves 14(A) notices to all those in the Book of Reference to state the TWA Order has been made.
- Following the announcement that the SoS has determined to make the Order, there is a six week challenger period.
- Three weeks after the TWA Order is made it comes into force.
- The Draft Business Case is finalised and submitted to the DfT following the promoter's internal processes.
- It is useful for the Promoter to prepare (for internal use) a commitments tracker to encompass any commitments in the Order, TWA documentation (Environmental Statement), agreements and commitments made to stakeholders and objectors, the conditions of the TWA Order etc. Then these can be tracked through detailed design, construction and operation of the scheme.