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Transport Infrastructure Ireland

## TII Publications



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# Project Manager's Manual for Major National Road Projects

**PE-PMG-02042**  
February 2019

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## TII Publications




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<b>Activity:</b>	Planning & Evaluation (PE)
<b>Stream:</b>	Project Management (PMG)
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# Introduction

## Purpose

This Manual has been prepared to provide supporting details on the processes and deliverables outlined within the *Project Management Guidelines (PE-PMG-02041)* to assist with ensuring consistency of approach in the delivery of major national road projects.

## Application

This Manual is applicable to major national road projects (value greater than €20m) which are funded through Transport Infrastructure Ireland (TII) and / or where TII is the Sanctioning Authority, unless otherwise instructed by TII. This manual is to be utilised by Project Managers delivering major national road projects. In this manual where reference is made to the Project Manager, this refers to the person delivering the Project on behalf of the Sponsoring Agency<sup>1</sup>.

This Manual does not purport to be a full statement of the duties and statutory obligations of the Project Manager. Responsibility for ensuring that the Project is progressed in accordance with applicable legislation, standards, and guidelines remains with the Project Manager<sup>2</sup>. TII, as Sanctioning Authority, ensure processes are being followed and will be available to provide guidance and advice to the Sponsoring Agency, as appropriate, to ensure consistency of approach in the delivery of major national road projects.

This Manual should be read in conjunction with the *Project Management Guidelines (PE-PMG-02041)*.

## Structure

The *Project Management Guidelines* divide the evolution and progression of a Project into an eight-phase process (Phase 0 to Phase 7 inclusive) as illustrated in **Figure 1**. Each phase is provided with a dedicated chapter in this Manual and the phase requirements are presented in a step-by-step manner. Important milestones and statutory processes requiring Sponsoring Agency action, Stakeholder Consultation, or TII input are indicated, such that the Sponsoring Agency can plan each phase in terms of time, resources, and cost. Outline and sample deliverable document templates are included as appendices, where appropriate.

Flowcharts outlining the required processes and principal deliverables for each Project phase are provided within this Manual. These are colour coded to reflect the documentation each process or deliverable derives from. **Figure 2** overleaf details the colour coding applied within these flowcharts.

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<sup>1</sup> For the purposes of this Manual, the term "Project Manager" is used to describe the person or persons undertaking the functions of Project Coordinator and Project Manager as described in the *Project Management Guidelines (PE-PMG-02041)*.

<sup>2</sup> While this Manual identifies the Project Manager as the person responsible for the delivery of all aspects of the Project, it is anticipated that the Project Manager will rely heavily on the Designers for assistance with this. The scope of work, and delegated responsibility for the Designers (whether an internal design team within the Sponsoring Agency or external Technical Advisors) will be defined and recorded within the Project Execution Plan.



Figure 1 Project Phases

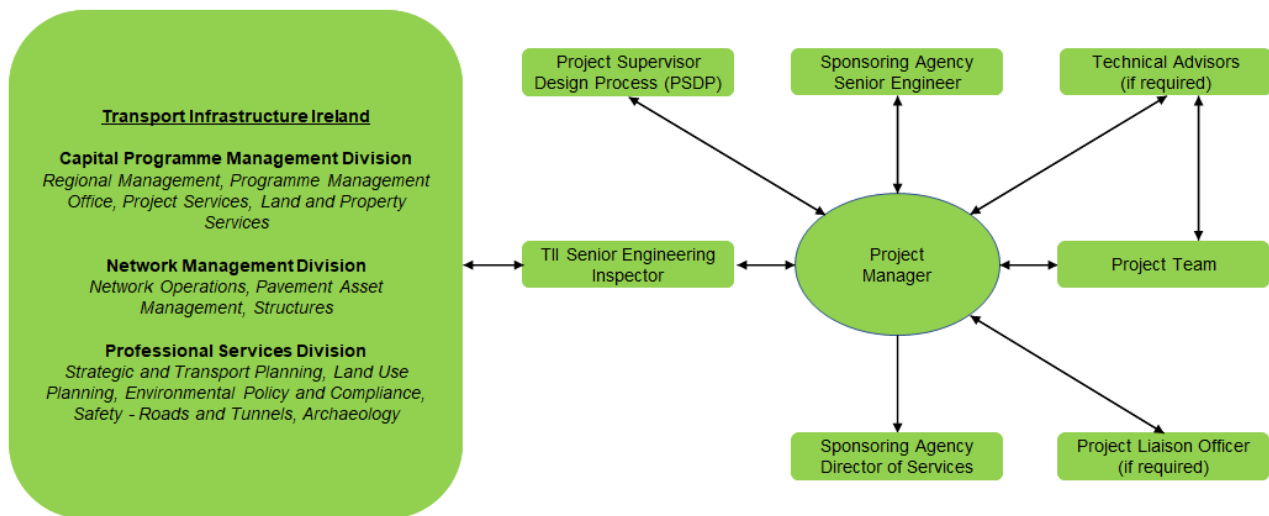


Figure 2 Flowchart Legend Colour Coding

## Role of TII

Transport Infrastructure Ireland (TII) was established through a merger of the Railway Procurement Agency and the National Roads Authority and is the operational name of the merged entity. TII has responsibility, inter alia, for the provision of a safe and efficient network of national roads as provided for in the Roads Act 1993. This includes the planning and construction of new roads and the improvement and maintenance of existing roads within the entire national road network.

The purpose of this section is to set out the function of TII associated with the delivery of major national road projects. The key delivery stakeholders for a typical major national road project and their interaction with TII are shown in **Figure 3** hereunder.



**Figure 3 Key Delivery Stakeholder / TII Interface**

As the Project progresses, the Project Manager may desire to seek advice and support from various specialist sections within TII. The primary interface between the Project Manager and TII, as highlighted in **Figure 3**, is the TII Senior Engineering Inspector. The TII Senior Engineering Inspector will determine the appropriate process for seeking advice from the various specialist sections within TII as required.

The TII Senior Engineering Inspector will deal with all day to day issues on major national road projects on behalf of TII including payments to Sponsoring Agencies and ensuring that all Project Management Guidelines Approval Points, expenditure monitoring, and project reporting are in compliance with TII policies for major national road projects delivery. The TII Senior Engineering Inspector is not responsible for checking, validating, or reviewing documentation prepared by the Sponsoring Agency. It is the responsibility of the Sponsoring Agency to ensure that deliverables are of a high calibre and that the project is progressed in accordance with applicable legislation, standards, and guidelines. The TII Senior Engineering Inspector will be available to provide guidance and advice to the Sponsoring Agency, as appropriate, as to the calibre of deliverables required to ensure consistency of approach in the delivery of major national road projects.

The TII Senior Engineering Inspector reports to the TII Regional Manager. The Regional Manager has overall managerial responsibility within TII for delivery of major national road projects on time and within Total Scheme Budgets. The Regional Manager is the primary contact between TII and the Sponsoring Agency at senior management level during the delivery of a project. This involves regular ongoing communication at the highest level and ensures efficient two-way flow of information and views between the parties.

## Quality Assurance Documentation

As well as the 'Phase' specific deliverables identified in the *Project Management Guidelines*, and this Manual, there are a number of overarching quality assurance documents required to be produced and managed by the Project Manager during Project development as identified in Section 4 of the *Project Management Guidelines* and expanded upon below.

### Project Execution Plan

The Project Execution Plan (PEP) is the core document for managing a project and states the policies and procedures for Project delivery. The PEP will be prepared by the Project Manager during Phase 1 and updated throughout the progression of the Project.

The format and content of the PEP shall include the following:

- Project definition / description;
- Project roles, responsibilities, and authorities;
- Project control and assurances;
- Programme management;
- Administrative systems and procedures – Documentation Management Plan;
- Cost, risk, and value management procedures; and
- Project Communications Strategy (referred to as Stakeholder Communications Plan within CWMF GN 1.1).

### Document Register

The Project Manager shall maintain a record of all reports and documents produced during each phase identifying the author, date of production, revisions, and the specific purposes of the report / document itself. This register shall log all other documentation key to the Project as it progresses' including minutes of meetings with third parties such as the National Parks and Wildlife Service (NPWS) and third-party service providers, which provide backup and understanding as to how the Project progressed. Such a register shall form part of the Project Execution Plan as described in this manual.

A sample Document Register is contained in **Appendix A0.1**.

### Decision Register

As a Project progresses through each phase of development, decisions or milestones are reached, many of which shall be recorded in the Document Register. However, as the full progression of any road project can take as much as 10 years to closeout and staffing and Technical Advisors may be subject to change during the Project lifetime, a record of key decisions is invaluable when certain issues present themselves, either at an Oral Hearing or an audit, several years later. Therefore, a Decision Register shall be prepared by the Project Manager for each Project, recording the decision, the relevant dates and referencing any related issues in the making of that decision. Such a register shall form part of the Project Execution Plan as described in this Manual.

A sample Decision Register is contained in **Appendix A0.2**.

### Risk Register

From the outset, the Project Manager shall maintain and regularly update a record of all risks identified as potentially impacting on the successful project delivery.

These risks may include delivery risks, statutory stakeholder risks, and third-party service provider risks among others. This requirement is in addition, but will be complimentary, to the phase specific risk evaluation processes outlined within the *TII Cost Management Manual*. The risk register should contain a description of each identified risk, a rating for each risk based on a 5x5 matrix or similar, the risk owner, and the risk control and mitigation strategies. Such a register shall form part of the Project Execution Plan as described in this Manual.

A sample Risk Register is contained in the *TII Cost Management Manual*.

### **Lessons Learned Register**

At the initiation of each project, the Project Manager shall obtain a copy of the Lessons Learned Database from TII and use the relevant lessons learned from this database, and from their own organisation's lessons learned processes, to prepare a project-specific lessons learned register. This register shall be updated regularly to demonstrate that relevant lessons learned from previous projects have been taken into consideration in the development of the Project. Completion of the lessons learned register is a required process for Phases 3 to 6 of the *Project Management Guidelines*. All new lessons learned in the development of the project shall also be recorded in the register and form part of the Post Project Review to be completed at the end of Phase 7.

The Project Manager should have regard to *PAG Unit: 9.0 Post Project Review* when considering items for inclusion in the Lessons Learned Register.

A Sample Lessons Learned Register is contained in **Appendix A0.3**.

### **Progress Reports**

The Project Manager shall prepare, maintain, and issue Progress Reports as required by the *Project Management Guidelines* and this Manual.

### **Steering Group**

For all Major National Roads Projects, a Steering Group will be formed comprising the Sanctioning Authority, Sponsoring Agency, Project Manager, Project Management Team and, where applicable, the Designers.

For more complex schemes, where multiple agencies or government departments are intrinsically involved in the project (e.g. urban relief road projects where public transport agencies may have an intrinsic role in the delivery of the final project) representatives from the other agencies and departments will be invited to join the Steering Group. The composition of the Steering Group will be documented in the Project Execution Plan.

### **Gate Review Process**

At the end of each Project phase a gate review is required to move to the next phase. Gate reviews are separate to the formal Sanctioning Authority Approval Points as defined in the *Project Management Guidelines (PE-PMG-02041)*.

The purpose of each gate is to ensure that a Project has met certain requirements before it can proceed to the next phase. By approving a gate TII are indicating that they are satisfied that the Sponsoring Agency has provided assurance that the required level of project maturity has been reached and the project can proceed to the next phase.

The gate reviews follow a standard approach which allows TII, along with the Sponsoring Agency responsible for project delivery, to assess Project progress.

The onus lies with the Sponsoring Agency for undertaking the review to provide assurance, through the submission of documentary evidence, that the required level of project maturity has been reached. TII reserve the right to carry out appropriate audits on the findings reached by the Sponsoring Agency and the evidence submitted to ascertain whether or not the project is being delivered as approved.

The process leading to each gate review will occur as the project is being developed rather than as a singular milestone task. That is, documentary evidence will be issued to TII on an ongoing basis, as the documentary evidence as outlined within this Manual is prepared and finalised, rather than as a final and singular package at the end of each Phase.

The Project Manager will prepare a Gate Review Statement confirming that the required documentary evidence has been issued to TII and that this documentary evidence demonstrates that the required level of project maturity has been reached. This confirmation will be endorsed by Sponsoring Agency Director of Services and submitted to TII along with a request to proceed to the next phase. The Gate Review Statement at the end of each phase will be accompanied by the applicable finalised deliverables.

Project Managers should be aware that, while the Gate Review Statement, will identify the specific deliverables required by the *Project Management Guidelines*, by submitting the Gate Review Statement, the Sponsoring Agency is also providing assurance that they have complied with all other TII review and approval requirements including, but not limited to, those contained in:

- DN-STR-03001: Technical Acceptance of Road Structures on Motorways and Other National Roads;
- PE-PMG-02001: Road Safety Impact Assessment;
- GE-STY-01024: Road Safety Audit;
- DN-ERW-03083: Managing Geotechnical Risk (to be published).

**Figure 4** hereunder outlines the summary of phases, gates, and Approval Points in a TII project.

Project Phase	Gate at End of Phase	Sanctioning Authority Approval Points
Phase 0 Scope and Pre-Appraisal	Gate 0	Approval Point
Phase 1 Concept and Feasibility	Gate 1	
Phase 2 Options Selection	Gate 2	
Phase 3 Design and Environmental Evaluation	Gate 3	Approval Point
Phase 4 Statutory Processes	Gate 4	Approval Point
Phase 5 Enabling and Procurement	Gate 5	Approval Point
Phase 6 Construction and Implementation	Gate 6	
Phase 7 Close out and Review	Gate 7	

**Figure 4 Phase, Gate, Sanctioning Authority Approval Points**

## Audit Requirements

TII reserve the right to undertake an audit of any or all Phases of any project and may seek confirmation of key decisions and confirmation that the various documents were prepared in accordance with the legislation, standards, guidelines, and policy applicable at the time. Outlines of items to be considered during such audits are included as appendices, for phases where significant expenditure is incurred.

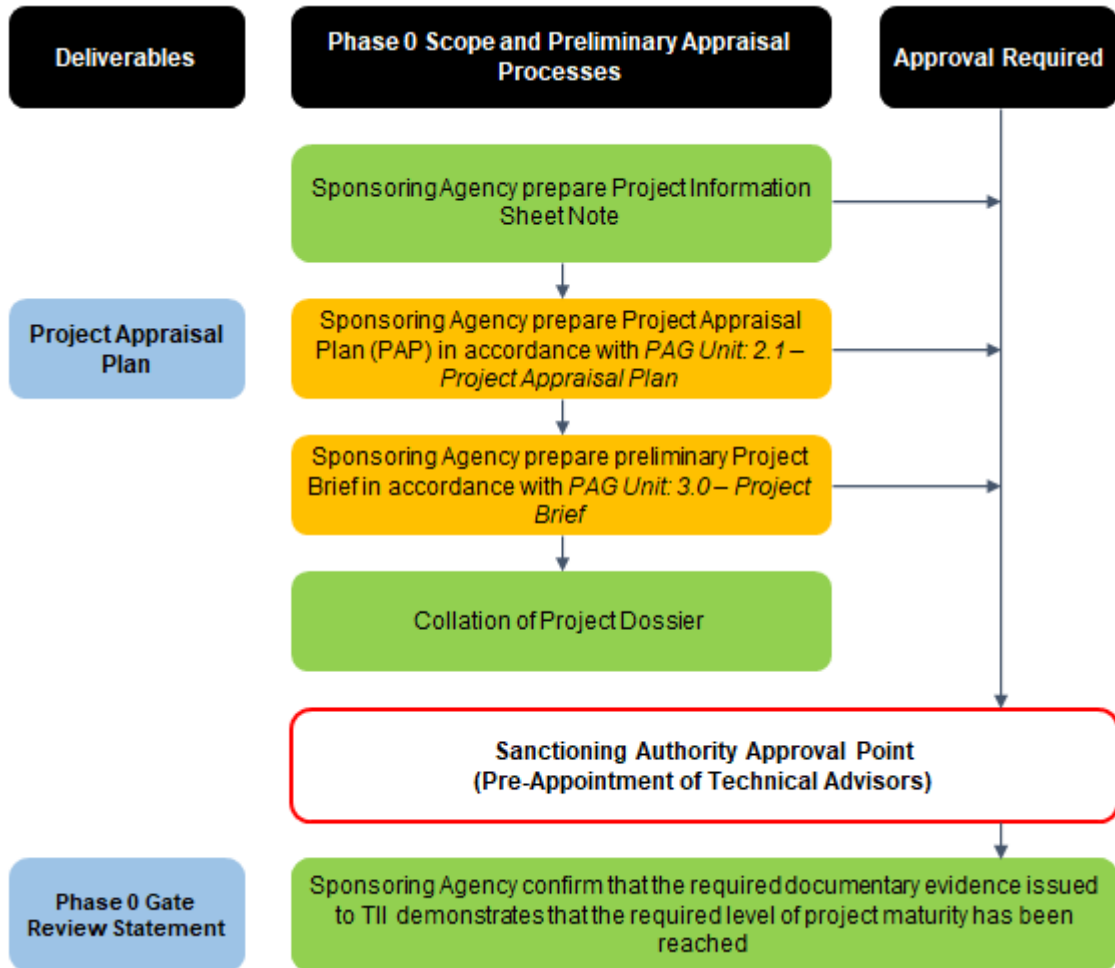
The Project Manager will ensure that relevant Project data is retained in a manner such that it is capable of being retrieved in an appropriate timeframe, for a period of years after completion of the Project.



## 0 Phase 0 Scope and Pre-Appraisal

The purpose of Phase 0 is to ensure that the project is aligned with current Sanctioning Authority strategic programmes and plans.

The processes and deliverables required to complete Phase 0 are outlined in **Figure 5**.



**Figure 5 Phase 0 Workflow Diagram**

## 0.1 Processes

### 0.1.1 Project Initiation and Definition

Major National Roads Projects will derive from TII and government policies and plans, strategic transport assessments and plans, planning guidelines, and relevant Local Authority development plans. The Sponsoring Agency will prepare a Project Information Sheet Note (PISN) outlining the Project details such as its scope, where it has derived from, and why it is now being proposed for advancement.

### 0.1.2 Project Appraisal Guidelines

#### 0.1.2.1 Project Appraisal Plan

The Project Manager will prepare the Project Appraisal Plan (PAP) in accordance with *PAG Unit: 2.1 Project Appraisal Plan*.

The PAP is the key document required at Phase 0. It is on the basis of information contained within the PAP that the decision will be made by the Sanctioning Authority whether or not to proceed with the project.

The PAP functions as a scoping document for the appraisal and transport modelling process. In accordance with *PAG Unit 2.1* the PAP shall be submitted to TII for review irrespective of whether or not TII are the Sanctioning Authority.

### 0.1.3 Project Dossier

The Project Manager will collate the Project Dossier. This shall include relevant prior information and data, previous studies, and appraisal works undertaken in the identification of the Project. The Project Dossier shall contain all information pertinent to the progression and development of the Project. This may include, but is not limited to, the information presented in **Appendix 0.4** of this document.

### 0.1.4 Project Gate 0

The Project Manager will ensure that all deliverables required for Phase 0 are finalised and issued to TII at the end of Phase 0.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of project maturity using the template in **Appendix 0.5**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 1 when TII accept the Gate Review Statement and issue consent to proceed to Phase 1.

## 0.2 Sanctioning Authority Approval Point

The submission of the PAP to the Sanctioning Authority constitutes a Sanctioning Authority Approval Point. The project shall not progress beyond this point until Sanctioning Authority approval to do so has been received by the Sponsoring Agency in writing.

### 0.2.1 Expedited Advancement to Phase 3

In exceptional circumstances policy, strategy, or studies may facilitate the commencement of the Project at Phase 3 Design and Environmental Evaluation. This will not occur without TII approval. In such instances, the Project Manager will compile the necessary documentary evidence to demonstrate the achievement of the requirements of TII PMG, TII PAG, regulatory requirements, statutory requirements, and guidelines prepared by regulatory and statutory bodies.

### 0.3 Deliverables

The deliverables for Phase 0 are listed below:

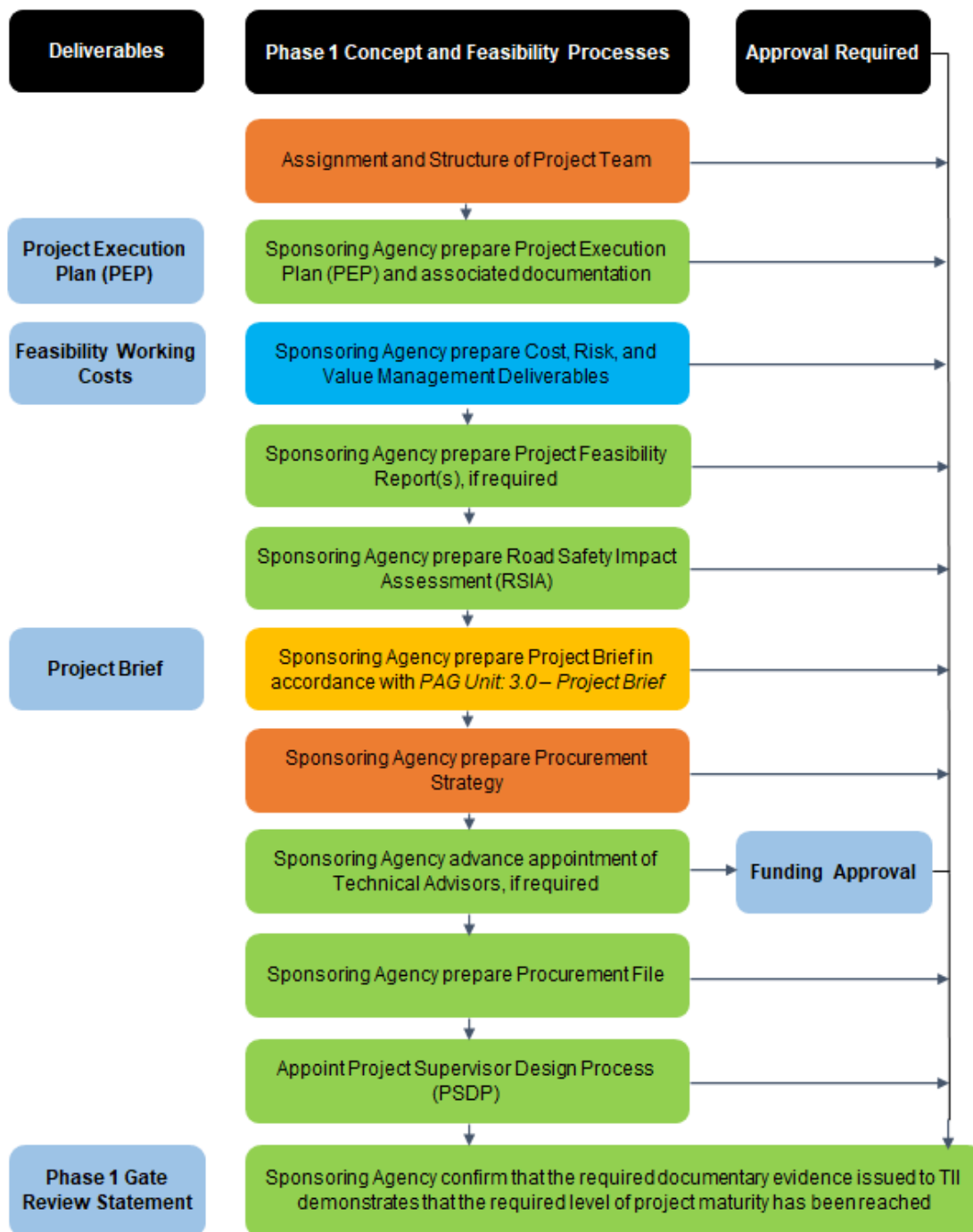
<b>Source</b>	<b>Deliverables / Process</b>
PAG	Project Appraisal Plan.
PMG	Phase 0 Gate Review Statement.

# 1 Phase 1 Concept and Feasibility

The purpose of Phase 1 is to develop and investigate in further detail the feasibility of the project and to implement the project management structure.

The Project objectives identified at Phase 0 will be re-evaluated against relevant strategic plans, planning guidelines, relevant Local Authority development plans, or relevant transport plans. This will be undertaken to establish whether alternatives considered during Phase 0 can meet the objectives set out therein.

The processes and deliverables required to complete Phase 1 are outlined in **Figure 6**.



**Figure 6 Phase 1 Workflow Diagram**

## 1.1 Processes

### 1.1.1 Assignment, and Structure, of Project Team

The Project Team consists of personnel from the Sponsoring Agency and Technical advisors, as appropriate.

Where a proposed Project spans the jurisdiction of more than one Local Authority, a 'Section 85' Agreement will be entered into under the provisions of Section 85 of the Local Government Act 2001 outlining which Local Authority is responsible for leading project delivery and for fulfilling the role of Sponsoring Agency.

The Project Manager, and if required Project Coordinator, will be assigned by the Sponsoring Agency to ensure that the Project is delivered on time, to budget, and to the required standards and specifications.

The Project Archaeologist is assigned to the relevant Project Team(s) to fulfil the obligations for the delivery of the projects, working for the Sponsoring Agency, and their role is set out in the *Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland*.

A Steering Group shall be established to guide the Project through its phased development. The Steering Group composition will be agreed by TII and the Sponsoring Agency.

A formal web-based *Project Reporting System (PRS)* is operated by TII for all major road projects. All expenditure for the Project will be reported through this before funds may be transferred to a Sponsoring Agency. The Project Manager will request TII to assign a Project name and a Project reference number to the Project.

The Project Manager will be responsible for completing monthly expenditure reports to ensure accurate and timely drawdown of the Project Grant Allocation. It is necessary to continuously monitor the scope of the Project throughout all phases of development through formal reporting mechanisms which are outlined in the PRS Manual available from TII. The Project Manager will have regard to the eligibility and audit requirements listed in the *TII Chargeability of Expenditure to National Road Grants* during each phase of Project delivery.

### 1.1.2 Project Execution Plan

A Project Execution Plan (PEP) will be prepared by the Project Manager. The PEP is the core document for managing a project and states the policies and procedures for Project delivery. The PEP will be appended to the Project Brief. Together they provide a comprehensive description of the project scope, objectives, and relative priorities in a structured format. Its purpose is to provide a framework for all those directly engaged during the design, procurement, implementation, and completion of the Project, and who are tasked with delivering the Project to the required specifications, within the Project capital budget, and to a set timeframe.

The format and content of the PEP shall include, but not be limited to, the following:

- Project definition / description;
- Project roles, responsibilities, and authorities;
- Project control and assurances;
- Programme management;
- Administrative systems and procedures – Documentation Management Plan;

- Cost, risk, and value management procedures; and
- Project Communications Strategy (referred to as Stakeholder Communications Plan within CWMF GN 1.1).

The Project Manager shall prepare and submit the PEP to the Sponsoring Agency Management Group for agreement. It shall be updated as required and re-issued to TII, with key deliverables, at the end of each phase when requesting formal approval to proceed to the next phase of development.

The PEP should address the information summarised in **Sections 1.1.2.1 to 1.1.2.6**.

#### **1.1.2.1 Appointment of Project Team, Project Roles, Responsibilities and Authorities**

The PEP should detail the key authorities, key Project roles, and their responsibilities for Project development and delivery as outlined in the *Project Management Guidelines*.

#### **1.1.2.2 Project Control and Assurances**

Gate Reviews allow Sponsoring Agencies to review the project at key development stages and provide assurance to TII that the project is being delivered in accordance with the applicable approvals and conditions. The PEP should detail the requirements for the Gate Review process and for project approval and governance procedures. This process will align with the requirements within the *Project Management Guidelines* and this Manual.

#### **1.1.2.3 Programme Management**

The Project Manager will prepare the Project Programme. The Project Programme will identify the key deliverables required for each phase and set realistic targets for their completion. The PEP should detail the frequency of programme reviews and how progress is to be monitored and controlled.

Depending on the nature of the Project and its priority within TII's programmes, the Project objectives may not necessarily cover all phases of development. TII may decide to expedite the Project and may require an accelerated programme to the end of Phase 5 Enabling and Procurement to the point where a Contractor has been appointed.

#### **1.1.2.4 Administrative Systems and Procedures**

The PEP should detail any administrative procedures that are necessary for effective and controlled Project implementation such as documentation systems, computer software standards, Project reporting, meeting frequencies, approval procedures, and the like. This should be set out in a section or appendix titled Documentation Management Plan. This may include a BIM Execution Plan (BEP) or Employer's Information Requirements (EIR). There are also requirements for a Document Register, Decision Register and Risk Register per the *Project Management Guidelines* and this Manual which will form part of the PEP.

#### **1.1.2.5 Cost, Risk, and Value Management Procedures**

TII's *Cost Management Manual (CMM)* takes account of cost, risk, and value management guidelines and will be read in conjunction with this Manual. Whilst details on cost, risk, and value management are outlined within the *TII CMM*, this manual notes the key deliverables for each phase. Cost, Risk, and Value Management procedures will be set out within the PEP.

Feasibility Working Costs (FWC's) will be prepared, for all options conceived during Phase 1 and evaluated during this phase. As part of this, the Project Manager will detail assumptions utilised in determining estimates, any Project risks identified, any value opportunities identified, and the strategies adopted for dealing with same. The Project Manager will issue base estimates and the risk register to the TII Senior Engineering Inspector for development by TII into the FWC's.

In accordance with *PAG Unit: 2.0 Project Appraisal Deliverables*, during Phase 1 certain projects will require Cost Benefit Analysis (CBA) of an appropriate degree.

The requirement for such CBA will be determined by TII via consultation with the Department of Transport Tourism and Sport (DTTas) during Phase 0, and if necessary, this Phase. The TII Senior Engineering Inspector will communicate requirements to the Project Manager.

### **1.1.2.6 Consultation with Stakeholders**

A Project Communications Strategy shall be prepared for each major national road project and included in the PEP.

As the Project progresses it is necessary to keep stakeholders informed of relevant Project information and to facilitate access to relevant Project data. The purpose of this is to inform stakeholders in a timely manner and to provide effective opportunities to participate in decision making procedures.

The Project Manager will arrange for public consultation events as required by this Manual seeking submissions and observations in relation to the Project from stakeholders. Such Public Consultation is non-statutory in nature, stakeholders will be informed of this and will be informed that statutory submissions and observations can be made to the Competent Authority once the statutory processes commence.

The Project Manager must initiate consultation with prescribed bodies seeking submissions and observations in relation to the Project.

### **1.1.3 Project Liaison Officer**

The Project Manager may nominate a Project Liaison Officer (PLO) in accordance with any agreement currently in place between TII, Irish Farmers Association, and the relevant government department. Where a PLO is not specifically appointed, the functions and duties will be fulfilled by the Project Manager. In instances where two or more Local Authorities are affected by a project, the duties of the PLO will extend to act as liaison officer to the Local Authorities who do not fulfil the role of Sponsoring Agency.

Full details of the duties of the PLO are provided in the *TII Guide to Process and Code of Practice for National Road Project Planning and Acquisition of Property for National Roads* and are outlined in **Appendix A1.1**.

### **1.1.4 Project Feasibility Report(s)**

In some cases, Project concept and feasibility may have been established. Notwithstanding, it remains necessary to examine Project concept and feasibility, at an appropriate level of detail, during this phase. The level of detail required will depend on the validity of assumptions underlying previous studies, the extent and scope of previous studies, and the time which has elapsed since previous studies were completed.

It may be necessary in certain circumstances to verify or establish Project need, or to verify the underlying assumptions used to previously justify Project need (during Phase 0), by means of a Project Feasibility Report, or reports. The Project Manager will determine, based on the available data and information, whether this is necessary. Where targeted feasibility studies are required the information to be included will be determined by the Project Manager in consultation with the Steering Group.

Feasibility studies can be carried out on any aspect of the Project in advance of the formal commencement of planning and design. This is to allow a better understanding of the issues, identify constraints and potential impediments to the progression of the Project, and to assist in planning the direction of further studies.

Such studies may comprise environmental studies, examination of utility diversions, examination of temporary works, examination of traffic management measures, junction options, transport studies, and transport modelling amongst others.

Where a Project Feasibility Report, or reports, is required, the Project Manager is responsible for its preparation with the support of the Designers as required.

Feasibility Working Costs required by the *TII Cost Management Manual (CMM)* should be reported therein.

### **1.1.5 Road Safety Impact Assessment**

The Road Safety Impact Assessment (RSIA) process will commence in accordance with the requirements of *PE-PMG-02001 Road Safety Impact Assessment*. This will contribute to the determination of Project need, Project objectives, and will inform the Project Brief.

### **1.1.6 Project Brief**

The Project Brief will be prepared during Phase 1. This will establish via appropriate analysis, the Project need, Project scope, and Project objectives.

During this Phase both the Do-Nothing and Do-Minimum options will be defined and documented within the Project Brief.

The examination of Project concept and feasibility contributes to the preparation of the Project Brief, the assessments undertaken as part of Project concept and feasibility will be reported within the Project Brief and, if required, within a Project Feasibility Report or reports as described in **Section 1.1.4**.

The Project Brief shall address the requirements of *PAG Unit: 3.0*.

### **1.1.7 Managing Geotechnical Risk**

In accordance with the geotechnical certification requirements of *DN-ERW-03083 Managing Geotechnical Risk (to be published)*, it is necessary to prepare a Statement of Intent and a Preliminary Geotechnical Risk Register during this phase, this report and register will be appended to the Risk Management Strategy.

### **1.1.8 Procurement Strategy**

When the Project Brief and Project Execution Plan have been completed the Sponsoring Agency will determine the proposed Project Procurement Strategy based on the Project specific features outlined within the Project Brief (including objectives, cost, risk, value). The Procurement Strategy will outline the proposed contract type. Guidance can be found in *CWMF GN 1.1: Project Management* and *CWMF GN1.4 Procurement and Contract Strategy for Public Works Contracts*.

The Procurement Strategy will be submitted to the Sponsoring Agency Management Group for approval. Where necessary, approval from the Government Construction Contracts Committee may also be required where it is proposed that the Procurement Strategy deviates from the Public Works Contract.

### **1.1.9 Appointment of Technical Advisors**

Where necessary, it may be necessary to commission Technical Advisors to aid Project delivery. The Project Manager will determine the nature and scope of the services to be procured. The Project Manager will document the scope within a Technical Advisors Procurement Brief.



Guidance can be found in *CWMF GN1.5.1 Public Works Contracts – Managing the Pre-Contract Phase* and *CWMF GN1.6 Procurement Process for Consultancy Services (Technical)*.

Technical Advisors may be appointed for Phases 1 to 4 of the TII PMG, or any appropriate combination of these Phases as determined by the Project requirements.

The Project Manager will prepare the necessary tender documents and determine appropriate quantitative and qualitative suitability criteria with advice, where necessary, from appropriate specialist advisors (e.g. insurance). Suitability criteria will take account of the complexity, nature, scope, and other relevant and appropriate Project specific criteria.

The Project Manager will be responsible for arranging the evaluation of tender returns by an appropriately qualified and experienced assessment board. Once the Tender Assessment Process is complete, a recommendation may be made to TII to accept one of the tenders received. As part of the Tender Award Recommendation (TAR), it will be necessary to prepare a Tender Report, which will summarise the Tender Assessment Process and formally recommend the Award of the Contract.

The Project Manager will submit the completed Tender Report to TII with a recommendation to appoint a Tenderer and a request for TII to provide funding for the identified costs associated with this appointment. The Tender Report will be accompanied by a Tender Award Recommendation Sheet (TARS), duly completed by the Sponsoring Agency. Tender Reports prepared by the Sponsoring Agency shall comply with obligations and requirements deriving from applicable procurement legislation (for example, *S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016 &c.*).

#### **1.1.10 Procurement File**

As part of the procurement process for Technical Advisors the Project Manager will set-up and maintain a Procurement File.

The Project Manager will update and maintain separate procurement files to include for all service providers engaged on the Project. The Procurement File will be updated and maintained throughout the Project's development. An outline of items to be included in the Procurement File is contained in **Appendix A1.2**.

#### **1.1.11 Health and Safety**

A suitably qualified Project Supervisor for the Design Process (PSDP) will be appointed in accordance with current health and safety legislation.

The PSDP will set up a Safety File and will be responsible for its maintenance and upkeep until it is handed over to the Contractor at the start of the Construction and Implementation phase.

The identity of the PSDP will be recorded in the PEP and any change to the appointed PSDP will be recorded in the PEP up to and including the start of the Construction and Implementation phase.

#### **1.1.12 Project Gate 1**

The Project Manager will ensure that deliverables required for Phase 1 are finalised and issued to TII at the end of Phase 1.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of Project maturity using the template in **Appendix A1.3**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 2 when TII accept the Gate Review Statement and issue consent to proceed to Phase 2.

## 1.2 Deliverables

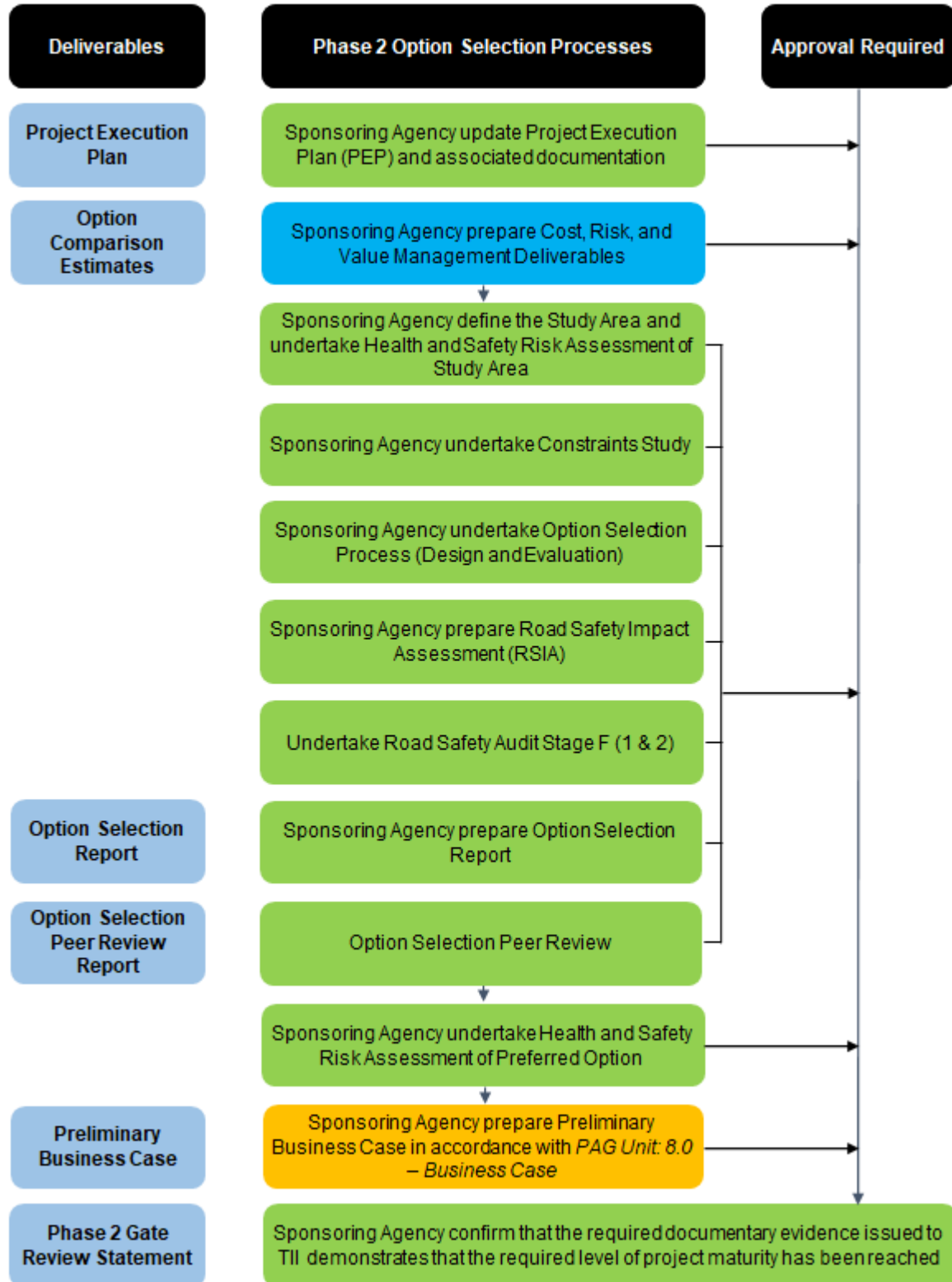
The deliverables for Phase 1 are listed below:

Source	Deliverables / Process
PMG	Project Execution Plan.
CMM	Feasibility Working Cost.
PAG	Project Brief.
PMG	Phase 1 Gate Review Statement.

## 2 Phase 2 Options Selection

The purpose of Phase 2 is to examine alternative options to determine a Preferred Option

The processes and deliverables required to complete Phase 2 are outlined in **Figure 7**.



**Figure 7** Workflow Diagram Phase 2

Initial tasks within Phase 2 are to identify a suitable study area<sup>3</sup> for the examination of all options derived from Phase 0, Phase 1, and determined during Phase 2 against the identified constraints in accordance with *PAG Unit: 4.0 Consideration of Alternatives and Options*. The study area should encompass all options examined. Consideration will be given to the zones of influence associated with options examined.

A key attribute of Phase 2, and indeed Project development, is the facilitation of stakeholder engagement by the Sponsoring Agency. Stakeholder engagement must be open, engaging, and continuous. Stakeholder engagement during Phase 2 will be aided by public consultation events, media notification and engagement, and web-based services as appropriate. Stakeholder engagement is beneficial to constraints mapping and the development and assessment of options. Engagement should be utilised to garner information on constraints and stakeholder specific data, taking cognisance of data protection requirements.

During Phase 2 it is necessary to establish whether, at face value, a sufficient case exists for considering a Project in more depth, that is, progression to Phase 3 Design and Environmental Evaluation. During this phase all reasonable / feasible options are examined (Option Selection Process) and their costs, benefits and effects on the environment are interrogated to identify a preferred option, if any, that will progress to Phase 3 Design and Environmental Evaluation.

## **2.1 Processes**

### **2.1.1 Project Brief and Project Execution Plan (PEP)**

During Phase 2 the Project Manager will ensure that the relevant performance targets (the objectives) for the Project outlined within the Project Brief are achieved. The options considered will be examined against the objectives and criteria set out within the Project Brief.

During this phase, the Project Brief and PEP should be updated by the Project Manager, as required, to take cognisance of the findings of the Option Selection Process.

### **2.1.2 Options Selection**

#### **2.1.2.1 Project Set-up Workshop**

The purpose of a project set-up workshop is to impart upon the Project Team the overall organisational structure for the Project and the key roles and responsibilities of each team member. This may include matters such as reporting and requirements for meetings, Project programme, and delivery.

A project set-up workshop may be held where the project team is comprised of multiple stakeholders (local authorities, government departments, Technical Advisors). The Project Manager may consult with the Steering Group regarding the need to hold a project set-up workshop.

An outline of items to be included in the agenda for a project set-up workshop is contained in **Appendix A2.1**.

#### **2.1.2.2 Stakeholder, including Prescribed Bodies, Consultation**

Prior to the commencement of the Option Selection Process, the Project Manager will ensure that stakeholders are made aware of the proposal to develop and assess several options leading to the selection of a preferred option.

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<sup>3</sup> In this document, the term "study area" relates to the area under consideration for the physical location of options and may be different to the macroscopic and microscopic study areas identified in the Project Appraisal Plan for use in transport modelling.

This should include the preparation of publicity information (e.g. media advertisements, postal drops, web based services etc.) to raise awareness of the Project. The Project Manager should provide briefings as necessary to public representatives.

Consultation may be utilised to garner information on constraints and on stakeholder and prescribed bodies specific data taking cognisance of data protection requirements.

In response to general queries, stakeholders should be informed of the various statutory processes and other steps involved in progressing the Project and of the likely timescales involved.

### **2.1.2.3 Definition of the Study Area**

The definition of the study area is a significant element in the Option Selection Process. The study area will cover an area which will enable appropriate options to be developed and examined.

The development of the study area is cyclical in nature as the findings of the constraints study and design development may instigate a re-evaluation of its extent (within the constraints of the Project scope identified in the Phase 0 PAP). Further, as options are developed their potential impact on the receiving environment will be determined and from this, their zone of influence deduced. The zone of influence is the zone encompassing all the potential impacts on the receiving environment associated with an option or alternative being evaluated.

Once a study area has been defined all constraints, at an appropriate level of detail, should be identified therein to facilitate a systematic assessment of the potential impacts associated with the options.

The Project Manager should issue the study area to the Sponsoring Agency Management Group for review prior to the commencement of the constraints study.

The Project Manager will refer the study area to the relevant Local Authority Planning Department(s) in an appropriate digital format. The Project Manager should request that the Local Authority Planning Department(s) issue planning applications therein for observation. As the development of the study area is cyclical the Project Manager should ensure that subsequent to each change the revised study area is issued to the relevant Local Authority Planning Department(s).

### **2.1.2.4 Mapping**

Irish Transverse Mercator (ITM) should be utilised for grid referencing and mapping for each major national road project.

The Project Manager will ensure that care and diligence is taken when spatial data from one grid is transformed to another. The Project Manager should take cognisance of *Project planning for the transformation of geographic data from Irish Grid (IG) to Irish Transverse Mercator (ITM)* prepared by OSI. Additionally, the Project Manager should have regard to the transformation requirements of bespoke spatial reference grids such as the 'RPA Grid' and others.

The Project Manager should obtain up to date professional mapping including but not limited to Discovery Digital, Ortho Photography, and vector mapping covering the study area. If the Project requires low-level aerial photography, it is advisable that these images be 'ortho-rectified' i.e. aligned to the Project grid referencing.

The Project Manager may obtain topographical survey data, including where appropriate LiDAR or Point Cloud data, to allow options to be developed to an appropriate level of detail to facilitate a systematic assessment of the potential impacts thereof.

The Project Manager may obtain OSI '6-inch' mapping as this is beneficial to the examination of Archaeological and Cultural Heritage elements as part of the constraints study.

### 2.1.2.5 Previous Studies

In advance of undertaking the constraints study the Project Manager should examine previous studies (feasibility, constraints, and examination of alternatives or options amongst others) that may have been carried out within the study area. This may serve to supplement and augment the information contained within the Project Dossier collated during Phase 0.

These previous studies may have identified key constraints or other issues that exist which may aid Project development. However, these studies will be treated with caution as they may be outdated in terms of applicable design standards, plans and/or policy guidelines, and current statutory and regulatory requirements.

### 2.1.2.6 Constraints Study

Prior to commencing the three step Option Selection Process outlined within *PAG Unit: 4.0 Consideration of Alternatives and Options*, it is necessary to identify the nature and extent of constraints, at an appropriate level of detail, within the study area. These constraints will be documented and mapped such that options under consideration can be designed taking cognisance of such constraints.

The Project Manager will ensure that the findings of the constraints study are documented and mapped in the Option Selection Report and will identify any areas where further investigations may be necessary due to restricted access or restricted surveying conditions among others.

An outline of items to be considered as part of the constraints study, under three principal categories per PAG, is contained in **Appendix A2.2**. This appendix outlines relevant information and guidance which may be considered as part of the constraints study.

#### 2.1.2.6.1 Identification of Constraints

While the constraints study may primarily be a desktop study, it may be necessary to verify the nature and extent of certain constraints by means of windshield or walkover surveys. Where such surveys are required, health and safety implications must be considered.

Constraints may be divided into three principal categories, namely:

- Natural Constraints (naturally occurring landscapes and features, including underground features);
- Artificial Constraints (forming part of the built environment including underground features, e.g. disused landfills); and
- External Parameters (design standards, policy, procedural, financial, and legal issues).

#### 2.1.2.6.2 Health and Safety Risk Assessment of Study Area

The principal constraints identified within the study area must be assessed from a health and safety perspective. Throughout Project development the project team must adhere to the principles of prevention to mitigate, and where possible eliminate and avoid, any unacceptable risks which could arise during the construction, operation, and maintenance of options under consideration.

The Project Manager will ensure that a Health and Safety Risk Assessment of the Study Area is completed and included within the safety file.

### 2.1.2.7 Option Selection Process

The examination and identification of options commences at Phase 0 and indeed even before this. During Phase 1 these options are further examined in terms of their feasibility, conceptually and practically, to achieve the Project objectives.

During Phase 2 options which progress from Phase 1 or are identified during Phase 2 are developed taking cognisance of the findings of the constraints study. These options should be developed to an appropriate level of detail to facilitate a systematic assessment of the potential impacts upon the findings of the constraints study.

The Option Selection Process is a three-stage process as outlined within *PAG Unit: 4.0 Consideration of Alternatives and Options*.

- Stage 1 – Preliminary Options Assessment
- Stage 2 – Project Appraisal Matrix
- Stage 3 – Preferred Option

#### **2.1.2.7.1 Development of Options**

As outlined within *PAG Unit: 4.0 Consideration of Alternatives and Options* several principles apply when considering and developing options. The principles outlined within *PAG Unit 4.0* will be used to evaluate the adequacy and steer the development of options. These principles can be summarised as follows:

- Options shall respond to the Project objectives.
- Options shall be significantly different, insofar as possible.
- Options shall be designed with environmental considerations in mind from the start.
- An incremental approach to the development of options is to be adopted.
- Management options shall be examined as part of the assessment of alternatives.
- Packages of measures shall be examined as part of the assessment of options.

Options falling outside TII's remit may require examination as part of the assessment of alternatives. In such cases the Project Manager shall seek guidance from TII as to how to proceed.

For *Stage 1 (Preliminary Options Assessment)*, all reasonable / feasible options (including 'Do-Nothing' / 'Do-Minimum' and Traffic Management alternatives) will be developed.

Options will be developed to an appropriate level of detail to facilitate a systematic assessment of the potential impacts upon the findings of the constraints study. With respect to road based options horizontal and vertical alignments shall be developed for each option using a Digital Terrain Model (DTM) to establish an indicative footprint and indicative earthworks quantities. Additional design-related issues such as indicative drainage outfalls and accessibility/interaction between the Project and the existing network (in the case of road projects in the form of a preliminary junction and access strategy having regard to DoECLG (2012) *Spatial Planning and National Roads, Guidelines for Planning Authorities*, local access requirements, the mainline carriageway cross-section, and corresponding permitted junction types in accordance with TII Publications) shall be developed for each option. The Project Manager will prepare and issue the preliminary junction and access strategy to the Steering Group for review.

A RSIA will be carried out and a report prepared in accordance with *PE-PMG-02001 Road Safety Impact Assessment* as part of *Stage 1 (Preliminary Options Assessment)*. This will contribute to the refinement of the number of options presented at the first public consultation.

#### **2.1.2.7.2 First Public Consultation**

The first public consultation will be held to inform stakeholders of the preliminary options developed and the findings of the constraints study in a timely manner and to provide effective opportunities to contribute to the decision-making process. This public consultation is non-statutory in nature, stakeholders will be informed of this and will be informed that statutory submissions and observations can be made to the Competent Authority once the statutory processes commence.

Where stakeholders put forward options for consideration, or proposed option modifications, the Project Manager will examine and document the viability thereof.

An outline of items to be considered in advance of public consultations is included in **Appendix A2.3**.

### **2.1.2.7.3 Stage 1 – Preliminary Options Assessment**

*Stage 1 (Preliminary Options Assessment)* is a comparative assessment of the potential impacts of the options, and their relative success in achieving the project objectives, under the headings of engineering, environment, and economy. In line with the *PAG Unit: 4.0 Consideration of Alternatives and Options* the Do-Nothing and Do-Minimum options as well as at least three Do-Something options shall be brought forward from the *Stage 1 (Preliminary Options Assessment)* process.

During *Stage 1 (Preliminary Options Assessment)*, consideration may be given to the amalgamation of two or more options and such amalgamated options may then be progressed to *Stage 2 (Project Appraisal Matrix)* of the Options Selection Process. Such amalgamation may limit the amount of options considered at *Stage 2 (Project Appraisal Matrix)* by discarding options via appropriating the strengths of various options and merging them into a new composite option. Alternatively, this new option may be brought forward without discarding root options.

### **Engineering and Environmental Evaluation**

An outline of the items to be considered in the engineering and environmental evaluation is contained in **Appendix A2.4**. Note that this appendix is not to be taken as a conclusive exposition of requirements. Project particulars / features will be examined to determine the most appropriate criteria via which options will be compared and evaluated during *Stage 1 (Preliminary Options Assessment)*. It may be possible to 'scope out' non-environment related criteria, for example where potential impacts will be negligible for all options, thereby simplifying assessment. Where this approach is adopted the Project Manager will clearly outline the rationale thereof within the *Stage 1 (Preliminary Options Assessment)* working paper and the Option Selection Report. All environmental effects must be considered and where these are negligible or equivalent across all option types this shall be stated as such.

Regard will be had to the TII Suite of environmental evaluation guidelines when undertaking the environmental evaluation.

### **Economy Assessment**

The economy assessment as part of *Stage 1 (Preliminary Options Assessment)* will comprise the preparation of Option Comparison Estimates (OCE's) in accordance with the requirements of the *TII CMM* and *PAG Unit: 6.2 Preparation of Scheme Costs*. As part of this, the Project Manager will detail assumptions utilised in determining estimates, any Project risks identified, any value opportunities identified, and the strategies adopted for dealing with cost, risk, and value. The Project Manager will issue base costs and risk registers to the TII Senior Engineering Inspector for development by TII into the OCE's. It is not necessary, but may be required dependent on Project particulars, to undertake CBA of options at *Stage 1 (Preliminary Options Assessment)*.

Following the completion of *Stage 1 (Preliminary Options Assessment)* a working paper summarising the findings should be prepared by the Project Manager and presented to the Sponsoring Agency Management Group for review. This report should detail the outcome of *Stage 1 (Preliminary Options Assessment)* and the recommended options proposed for advancement to *Stage 2 (Project Appraisal Matrix)* of the Option Selection Process.

If the recommended options extend beyond the study area boundary the Project Manager will issue the revised study area to the Local Authority Planning Department(s). The Project Manager shall request that the Local Authority Planning Department(s) issue planning applications therein for observation.



#### **2.1.2.7.4 Second Public Consultation**

If design development during *Stage 1 (Preliminary Options Assessment)* results in the creation of options which are significantly different in size, scale, nature, or potential impact in different areas to those presented at the first public consultation it may be necessary to hold a second public consultation. At this consultation, the recommended options proposed for advancement to *Stage 2 (Project Appraisal Matrix)* to stakeholders will be presented.

The requirements for the second public consultation should be identical to those for the first public consultation. The Project Manager will ensure that stakeholders are informed of relevant Project information and have access to relevant Project data regardless of whether a second consultation is required or not.

The Project Manager should endeavour to ensure that the timeframe between the first and second public consultations, when both are required, is minimised (insofar as possible) to inform stakeholders who are associated with options of the status of such options.

#### **2.1.2.7.5 Stage 2 – Project Appraisal Matrix**

The options advanced from *Stage 1 (Preliminary Options Assessment)* of the Option Selection Process will be evaluated by undertaking a full cost benefit analysis and multi criteria analysis of the quantifiable and non-quantifiable impacts of these options in accordance with *PAG Unit: 7.0: Multi Criteria Analysis (MCA)*.

Incremental analysis as per *PAG Unit: 4.0* will be undertaken during *Stage 2 (Project Appraisal Matrix)* of the Option Selection Process to determine the most appropriate level of service (cross section, level of intervention, access requirements among others) for the options considered during *Stage 2 (Project Appraisal Matrix)*.

#### **Economy Appraisal**

The **OCE's** prepared for *Stage 1 (Preliminary Options Assessments)* will be reviewed; taking cognisance of amendments, option amalgamations, or updated information. These OCE's will be used as part of the Economy Appraisal for *Stage 2 (Project Appraisal Matrix)*.

Transport modelling is a key aspect of the economy appraisal during *Stage 2 (Project Appraisal Matrix)*. The Project Manager will prepare a Transport Modelling Report (TMR) in accordance with *PAG Unit: 5.0 Transport Modelling Overview*. This report will detail whether options can achieve the targeted transportation objectives over the appraisal period, and a comparative assessment of the ability of each option to achieve the targeted objectives. It is necessary that the anticipated 'Year of Opening' and 'Design Year' for the Project are realistic and are reviewed with the Steering Group prior to commencing the TMR.

#### **Safety Appraisal**

A Road Safety Audit Stage F (Phase 1) in accordance with *GE-STY-01024 Road Safety Audit* will be undertaken during *Stage 2 (Project Appraisal Matrix)*. The road safety audit report should compare the options in terms of road safety. As part of the safety appraisal reference may also be made to the CBA report regarding the forecast reduction in vehicular collisions and safety benefits that will accrue for each option. Regard will be had to *PAG Unit 6.4 Guidance on using COBALT* and *PAG Unit: 6.11 National Parameters Values Sheet*.

#### **Environmental Appraisal**

The Project Manager should have regard to the requirements of *PAG Unit: 7.1 Project Appraisal Balance Sheet (PABS)* and the TII Suite of environmental evaluation guidelines when undertaking the environmental appraisal during *Stage 2 (Project Appraisal Matrix)*.

It may be possible to 'scope out' non-environment related criteria, for example where potential impacts will be negligible for all options, thereby simplifying assessment. Where this approach is adopted, the Project Manager will clearly outline the rationale thereof within the *Stage 2 (Project Appraisal Matrix)* a working paper. All environmental effects must be considered and where these are negligible or equivalent across all option types this shall be stated as such.

With respect to many potential environmental impacts (e.g. Green House Gas Costs) these may also be monetised within the CBA (refer to *PAG Unit: 6.11 National Parameters Values Sheet*).

Following the completion of the *Stage 2 (Project Appraisal Matrix)* a working paper summarising the findings, as outlined above, will be prepared by the Project Manager and presented to the Steering Group for review. The report should detail the outcome of the *Stage 2 (Project Appraisal Matrix)* and the proposed recommended preferred option.

#### **2.1.2.7.6 Stage 3 – Preferred Option**

After the completion of *Stage 2 (Project Appraisal Matrix)*, a preferred option for the Project will be selected based on the MCA.

The Project Manager will prepare a PABS, in accordance with *PAG: Unit: 7.1 Project Appraisal Balance Sheet*, to summarise the impacts associated with the preferred option.

A Road Safety Audit Stage F (Phase 2) in accordance with *GE-STY-01024 Road Safety Audit*, will be carried out on the preferred option. Any changes resulting from the audit will be incorporated into the preferred option design. The Road Safety Audit Stage F (Phase 2), will be appended to the Option Selection Report.

The rationale for the selection of the preferred option will be outlined within the Option Selection Report.

#### **2.1.2.7.7 Project Appraisal Balance Sheet (PABS)**

The PABS will be completed for the preferred option only. The PABS is a key input of the Preliminary Business Case. Note that the preparation of the PABS for the preferred option does not negate the requirement for a MCA of each option as part of the Option Selection Process.

The Project Manager is responsible for ensuring that the PABS is subject to review to ensure compliance with *PAG Unit: 7.1* requirements.

### **2.1.3 Option Selection Report**

An Option Selection Report will be prepared during Phase 2. An outline template for an Option Selection Report is contained in **Appendix A2.5**.

The Project Manager is responsible for preparing the Option Selection Report with the Sponsoring Agency Senior Engineer signing off on its completion. The status of the Option Selection Report will remain 'Draft' until after the completion of the Option Selection Peer Review.

#### **2.1.3.1 Option Selection Peer Review**

It will be necessary to carry out a *Peer Review* of the Option Selection Report. Peer Reviewers will be appointed by TII.

Prior to the Option Selection Peer Review, the Project Manager will ensure issues such as those outlined in **Appendix A2.6** have been satisfactorily addressed. The Project Manager will issue information to the Peer Reviewers in advance of the peer review meeting. During the meeting, the Project Manager will outline the Option Selection Report to the Peer Reviewers. Project team members will attend the meeting and respond to any queries raised by the Peer Reviewers.

The Peer Reviewers may raise queries for the project team to action in advance of or during the peer review meeting. Such queries will require a formal response. The Project Manager will ensure that an appropriate response to issues raised at Peer Review is prepared and submitted within the timeframe specified by the Peer Reviewers. Where a response is required it will be included within the final Peer Review Report. It will be necessary to obtain formal acceptance of the response and the Peer Review Report from the Peer Reviewers.

#### **2.1.4 Cost, Risk, and Value Management Procedures**

The following processes, in accordance with *TII CMM*, are required in Phase 2:

- Cost Management Strategy, including preparation of Option Comparison Estimates (OCE's);
- Risk Management Strategy, including mitigation plans, and Key Risks Schedule (including qualitative assessment); and
- Value Management Strategy, including implementation status, and updated Value Decisions Tracking Register.

The Project Manager will detail assumptions utilised in determining estimates, any Project risks identified, any value opportunities identified and the strategies adopted for dealing with same.

It is necessary to ensure that cost, risk, and value deliverables and issues are appropriately managed. It is necessary to assign deliverables and issues to stakeholders most capable of achieving optimum outcomes. For example, policy and strategy related deliverables and issues will be best managed when assigned to TII, whilst matters requiring regular monitoring will be best managed when assigned to the Project Manager.

##### **2.1.4.1 Managing Geotechnical Risk**

In accordance with *DN-ERW-03083 Managing Geotechnical Risk (to be published)* it is necessary to prepare a Preliminary Sources Study Report and a statement of intent including a preliminary Geotechnical Risk Register during this phase, this report and register will be appended to the Option Selection Report.

#### **2.1.5 Public Display of Preferred Option**

Following the formal sign-off by the peer reviewers of the Peer Review Report and the incorporation of comments, if any, to the finalised Option Selection Report, a Public Display will be held to inform stakeholders of the preferred option.

#### **2.1.6 Interaction with Planning Authorities**

The Project Manager will refer the study area (at this stage in Project development reduced to a design corridor) to the relevant Local Authority Planning Department(s). The design corridor will cover a less extensive area than the initial study area. The Project Manager should request that the Local Authority Planning Department(s) issue planning applications therein to the Project Manager. Additionally, the Project Manager will request that the Local Authority Planning Department(s) issue planning applications which may influence, or impact upon the underlying design assumptions. The transition from an expansive study area to a design corridor will remove from planning referrals all other options which are no longer being considered. All work at this stage remains 'work in progress' and is subject to change as the Project transitions from Phase 2 Options Selection to Phase 3 Design and Environmental Evaluation.

The Project Manager will ensure that the preferred option is included in the development plans of all affected Local Authorities.

It may be necessary to include the preferred option in the City and/or County Development Plan(s) (including Local Area Plans, as appropriate) by means of a variation to the development plan(s).

In such circumstances, the Project Manager will assist the relevant Local Authority, as appropriate, to complete the variation(s) including any consequent Strategic Environmental Assessment / Appropriate Assessment requirements. The Project Manager will have regard to the renewal date of all relevant development and local area plans.

It is advisable to ensure that the preferred option, as shown on the development plan, does not highlight the locations of principal features associated with the Project, for example junction layouts, as they will not have been fully developed and may be subject to further changes during Phase 3 Design and Environmental Evaluation.

### **2.1.7 Health & Safety Risk Assessment of Preferred Option**

The Project Manager will undertake a Health and Safety Risk Assessment of the Preferred Option to identify any risks associated with the construction, operation, and maintenance of the Project. This assessment does not negate the requirement to take account of the principles of prevention as required by health and safety legislation and regulations when assessing and developing options during the Option Selection Process.

The PSDP will include the Health and Safety Risk Assessment of the Preferred Option within the safety file.

### **2.1.8 Structures Technical Acceptance**

In accordance with *DN-STR-03001 Technical Acceptance of Road Structures on Motorways and Other National Roads*, an Outline Structures Report will be prepared for the Preferred Option and submitted to TII.

### **2.1.9 Preliminary Business Case**

The Preliminary Business Case (PBC) is the primary deliverable from the project appraisal process for Phase 2. A PBC is produced during this phase and evolves into a Detailed Business Case (DBC) as the project progresses. *PAG Unit: 8.0 Business Case* outlines the structure and detail to be provided in the business case document.

The PBC is a report that summarises the preliminary appraisal process undertaken during Phase 1 and Phase 2. The PBC brings together the Project Brief, Transport Modelling Report, Cost Benefit Analysis, and Project Appraisal Balance Sheet to form a complete statement documenting the rationale behind, and justification for, the preferred option following the completion of Phase 2.

The Project Manager will submit the PBC to TII for audit.

### **2.1.10 Project Gate 2**

The Project Manager will ensure that deliverables required for Phase 2 are finalised and issued to TII at the end of Phase 2.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of project maturity using the template in **Appendix A2.7**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 3 when TII accept the Gate Review Statement and issue consent to proceed to Phase 3.

## **2.2 Deliverables**

The deliverables for Phase 2 are listed below:

<b>Source</b>	<b>Deliverables / Process</b>
CMM	Option Comparison Estimates.
PMG	Option Selection Report.
PMG	Signed Option Selection Report Peer Review Report.
PAG	Preliminary Business Case.
PMG	Updated Project Execution Plan.
PMG	Phase 2 Gate Review Statement.

### 3 Phase 3 Design and Environmental Evaluation

The purpose of Phase 3 is to develop the project design, following selection of a preferred option, based on both technical and environmental inputs, to a stage where sufficient levels of detail exist to establish landtake requirements, to identify and mitigate project impacts, and to progress the project through the statutory processes.

The processes and deliverables required to complete Phase 3 are outlined in **Figure 8**.

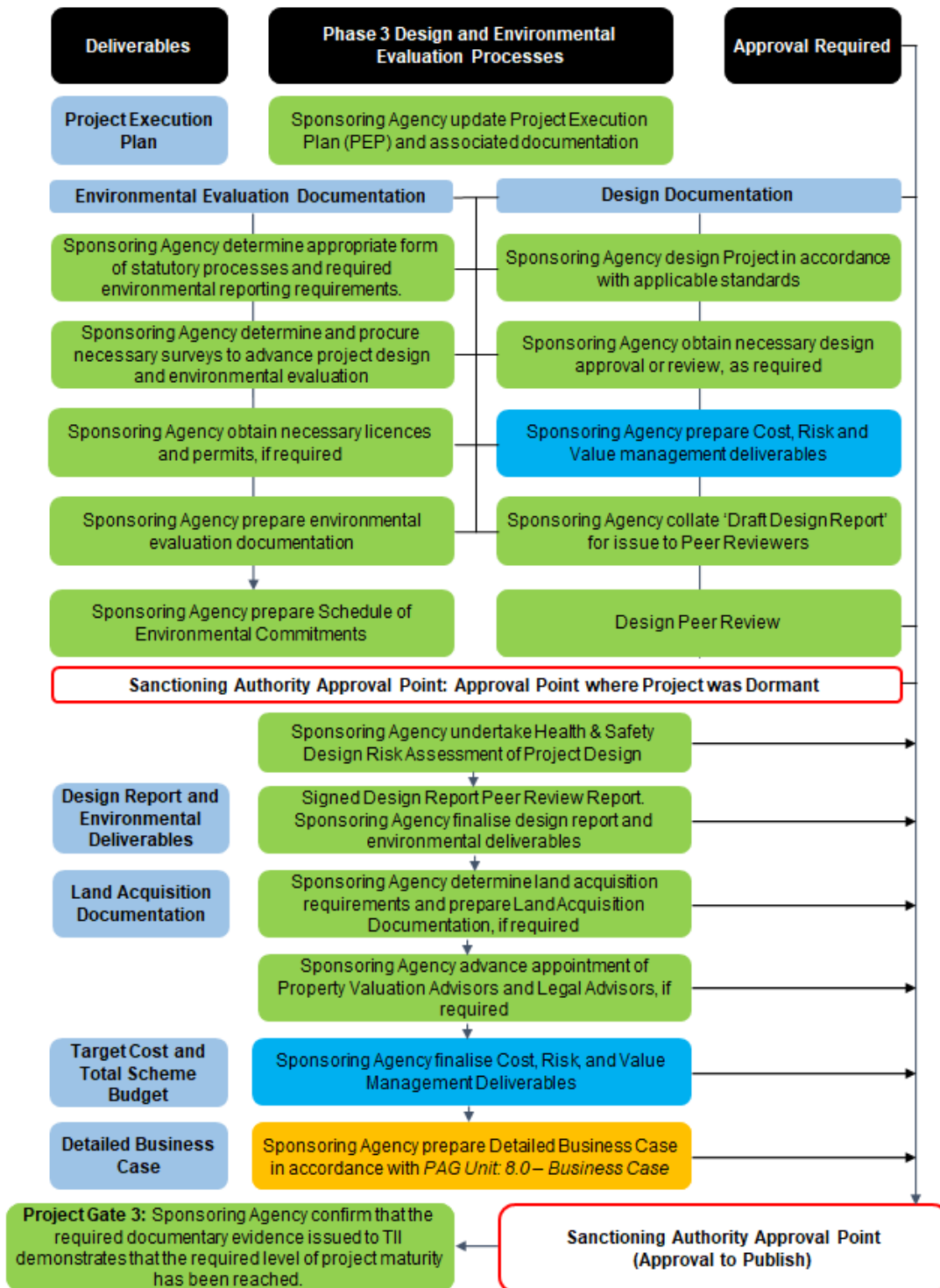


Figure 8 Workflow Diagram Phase 3

Design, environmental evaluation, and the determination of the appropriate form of Statutory Processes is the purpose of Phase 3, with a view to ensuring that a buildable option that meets the project objectives and provides value for money is achieved. Design and environmental evaluation proceed in tandem as environmental evaluation may prompt design amendments which eliminate or mitigate potential environmental impacts. It is necessary that the design is developed to an appropriate level of detail to facilitate a systematic assessment of the potential impacts associated with the Project and to establish land-take requirements. The land acquisition process(es) via which land will be acquired for the Project will be approved by the Steering Group.

## **3.1 Processes**

### **3.1.1 Project Appraisal Guidelines**

#### **3.1.1.1 Project Brief and Project Execution Plan (PEP)**

During this phase, the Project Brief and PEP will be updated by the Project Manager, as required, to take cognisance of Design and Environmental Evaluation.

#### **3.1.1.2 Transport Modelling Report (TMR)**

The TMR will be updated to incorporate an assessment of the preferred option in accordance with the *TII PAG*.

Transport modelling will be used to generate travel demand projections. These will be used to determine and validate the appropriate level of service, including the appropriate carriageway cross-section, for the Project in conjunction with other requirements such as journey type (inter-urban or commuter) as outlined in *DN-GEO-03036 Cross-Sections and Headroom* and *DN-GEO-03031 Rural Road Link Design*.

During Phase 3 the TMR will be developed in tandem with the design, the preparation of *TII CMM* deliverables, the determination of the level of service / cross section, and the junction strategy. These processes are iterative, the design undergoes transport appraisal which in some cases prompts design amendments to accrue higher benefits or better realise Project objectives.

### **3.1.2 Consultation with Stakeholders**

Stakeholders should be alerted that access to their property may be required at various stages during Phase 3. They should also be advised that the Sponsoring Agency will provide written notice for access in the case of intrusive works and that compensation may be payable for such works.

Stakeholders affected by the Project may wish to ascertain the extent of the Project's impact on their property. Individual Stakeholder maps shall be prepared showing the Project's potential impacts upon the Stakeholder's property when requested. In cases where there is significant property severance, the approximate area of severed property shall be indicated on the map. The map shall also include a statement to the effect that "*the Project as shown is indicative only and may be subject to further change during the design and environmental evaluation.*"

### **3.1.3 Identifying Appropriate form of Statutory Processes**

The form of statutory Process may include, but is not limited to, the following:

- Local Authority Own (Part 8) Development;
- Appropriate Assessment (AA); and
- Environmental Impact Assessment.

or some combination of these.

If in any doubt as to the appropriate statutory processes to apply to the project, the Project Manager should obtain legal advice when determining the appropriate form of statutory processes and advancing the Project through the statutory processes as errors or omissions can potentially jeopardise Project success.

### **3.1.3.1 Local Authority Own (Part 8) Development**

Where an Environmental Impact Assessment is not required the Sponsoring Agency may propose, approve, and carry out development (including the construction of roads) within its administrative area. Such development is often referred to as a Part 8 Development. For such development, documentation detailing the nature and extent of the Project will be compiled in accordance with the Planning and Development Regulations (PDR) 2001 (as amended) and the Planning and Development Act 2000 (as amended).

Part 8 Development may interact with other legislative procedures (for example land acquisition procedures).

### **3.1.3.2 An Bord Pleanála**

#### **3.1.3.2.1 Appropriate Assessment (AA)**

Sponsoring Agencies are required to make an application to An Bord Pleanála for any proposed development in their functional area where Appropriate Assessment is required. Projects requiring Appropriate Assessment may also require Environmental Impact Assessment and may interact with other legislative procedures (for example land acquisition procedures). For such development, documentation detailing the nature and extent of the Project will be compiled in accordance with the Planning and Development Act 2000 (as amended) and/or the Roads Act 1993 (as amended).

Guidance on seeking approval under Section 177AE of the PDA 2000 (as amended) is available via *Applications for approval for Local Authority Developments made to An Bord Pleanála under 177AE of the Planning and Development Act, 2000, as amended (Appropriate Assessment)* as prepared by An Bord Pleanála (<http://www.pleanala.ie/publications/2013/aaenglish.pdf>).

#### **3.1.3.2.2 Environmental Impact Assessment**

Sponsoring Agencies are required to make an application to An Bord Pleanála for any proposed road development in their functional area where Environmental Impact Assessment is required, as set out in the Roads Act 1993 (as amended).

Proposed developments under the Roads Act 1993 fall within the definition of Strategic Infrastructure Development (SID) as defined in section 6(c) of the SID 2006 Act. Guidance on the procedure for submitting Strategic Infrastructure Development projects to An Bord Pleanála is set out on the An Bord Pleanála website ([www.pleanala.ie](http://www.pleanala.ie)).

Projects requiring Environmental Impact Assessment may also interact with other legislative procedures (for example land acquisition procedures).

### **3.1.4 Environmental Evaluation Screening**

It is necessary that Appropriate Assessment and Environmental Impact Assessment screening decisions, including the main reasons and considerations on which the decision is based, be made available to Stakeholders and the general public.

As noted, some projects may require both Appropriate Assessment and Environmental Impact Assessment.



### **3.1.4.1 Screening for Appropriate Assessment**

Screening for Appropriate Assessment must be undertaken by the Sponsoring Agency. The Competent Authority (i.e. An Bord Pleanála) may also carry out Appropriate Assessment screening. Where the Competent Authority determines that Appropriate Assessment is required it will direct that a Natura Impact Statement (NIS) be prepared.

### **3.1.4.2 Environmental Impact Assessment (EIA) Screening**

Environmental Impact Assessment (EIA) Screening must be undertaken to establish if an EIA for the Project is required. The Project must be considered in its entirety for screening purposes. The division of a Project into separate parts so that each part is below an applicable threshold is not acceptable.

Certain proposed road developments mandatorily require the preparation of an Environmental Impact Assessment Report (EIAR) pursuant to the Roads Act 1993 (as amended). If the Project is not of the type that requires a mandatory EIAR but the Sponsoring Agency (the 'road authority') determines that the proposed road development would be likely to have "*significant effects on the environment*", it will inform An Bord Pleanála. An Bord Pleanála may then direct the preparation of an EIAR if they concur (a Sponsoring Agency must be satisfied that the Project is likely to have significant effects on the environment before referring it to An Bord Pleanála and the Sponsoring Agency Management Group must approve the referral to An Bord Pleanála).

Where EIA is required an Environmental Impact Assessment Report (EIAR) will be prepared. An EIAR is a report or statement of the effects, if any, which the proposed Project, if carried out, would have on the environment.

### **3.1.5 Environmental Evaluation Scoping**

Scoping will be undertaken to determine what information should be contained in the environmental evaluation reporting and what methods should be used to gather and assess that information. Knowledge of the characteristics of the Project and of the sensitivities likely to be present in the receiving environment are particularly useful for scoping.

Guidance on environmental evaluation with respect to the planning of national roads has been prepared by TII and is available on the TII website and within the TII Publications system.

In the case of environmental evaluation requirements for any transboundary project or for any project that is likely to cause significant transboundary effects, contact with the relevant authorities in adjoining states should be made. A consultation framework to consider and address such potential effects may be established.

As the Project is developed *it is necessary to revisit* the scoping exercise to ensure that all potential impacts are appropriately identified and assessed.

#### **3.1.5.1 Part 8 Development**

For Part 8 Development scoping will take account of Sponsoring Agency requirements and Project particulars.

#### **3.1.5.2 Natura Impact Statement (Appropriate Assessment)**

When scoping for Appropriate Assessment the Project Manager shall note that the Appropriate Assessment process is not a general ecological assessment, but is a focused and detailed impact assessment of the implications of the Project on the integrity of a European site(s) in view of its conservation objectives.

### **3.1.5.3 Environmental Impact Assessment**

Environmental Impact Assessment (EIA) is the process of examining the anticipated environmental effects of a proposed Project. EIA scoping is the process of determining the content and extent of matters that should be covered in the EIAR to be submitted to a Competent Authority.

The Sponsoring Agency may formally request the opinion of the Competent Authority on the scope of the EIA. This can be availed of for any project requiring an EIA.

### **3.1.6 Environmental Evaluation Reporting Requirements**

Guidance on environmental evaluation reporting with respect to the planning of national roads has been prepared by TII and is available within the TII Publications system.

As appropriate, environmental evaluation reporting will be translated to the Irish language. Where a Project crosses or impacts on a Gaeltacht area, an Bord Pleanála have previously required that the body of environmental evaluation reporting, and the non-technical summary thereof, be translated to Irish with the appendices and drawings remaining in English (due to their complexity and technical content).

TII provide comments / feedback on final draft environmental evaluation reporting in accordance with *NRA Circular No. 05/2006*. The Project Manager will issue environmental evaluation reporting to the TII Senior Engineering Inspector for dissemination to the relevant persons. The Project Manager will liaise with TII to ensure that adequate time is available for review.

When finalising the environmental evaluation reporting the Project Manager will take cognisance of the review comments, if any, from TII and others as appropriate (for example NPWS, EPA). The Project Manager will collate the finalised environmental evaluation reporting for issue to the Competent Authority.

### **3.1.7 Survey Requirements**

Surveys may be required to develop the Project design. The most common surveys required for major national road projects include:

- Environmental surveys;
- Topographical and utility surveys;
- Transport surveys; and
- Ground investigation surveys.

Additional survey types may be required as determined by the Project Manager.

The Project Manager must comply with regulatory requirements, statutory requirements, guidelines prepared by regulatory and statutory bodies, and guidelines prepared by TII when determining the need for surveys.

#### **3.1.7.1 Environmental Survey Requirements**

When determining required environmental surveys, the Project Manager will have regard to the outcome of environmental screening and scoping.

Surveys required as part of the Design and Environmental Evaluation may have implications for the Project Programme (e.g. the presence of bats along the Project may require a 4-season bat survey to be carried out).

The requirement to carry out these surveys may only arise after consultation with prescribed bodies or the Competent Authority and thus early engagement is key. The Project Manager must ensure that a sufficient period is allowed in the Project Programme to undertake surveys, as required, and for completion of the environmental evaluation and reporting. The Project Manager will inform the Steering Group of survey requirements which may have an impact on the Project scope and programme.

Environmental surveys may have a limited period of validity. The Project Manager will ensure that requirements for renewal / review of surveys are incorporated within the Project programme as appropriate. Where environmental surveys are deemed invalid due to passage of time, and where allowance for renewal was not allowed for within the Project programme, the Project Manager will notify the Steering Group of the revised Project programme, if necessary, for the delivery of the Project.

With respect to archaeology, the Project Manager in conjunction with Project Archaeologist, will determine various survey and any test excavation requirements for the Project.

### **3.1.7.2 Topographical and Utility Surveys**

Where required, the Project Manager will procure topographical and or utility surveys.

As part of any topographical survey contract, permanent ground markers will be put in place to establish a control network.

Topographical and utility surveys will be undertaken in accordance with TII requirements. It is advisable that the Project Manager confirm the degree of accuracy and acceptable tolerances required for surveys in advance of preparing documents to procure a service provider.

### **3.1.7.3 Transport Surveys**

The Project Manager will identify additional data collection requirements for transport modelling. Requirements are outlined within *PAG Unit: 5.2 – Data Collection*.

The Project Manager should have regard to alternative data sources, sources other than moving car observer data, such as journey time data from GPS service providers, Google, etc. as part of the data collection process.

### **3.1.7.4 Ground Investigation Surveys**

It may be necessary to carry out ground investigation surveys for the Project to inform Project design and environmental evaluation and, where required, environmental monitoring.

The Project Manager, with support, as appropriate from specialist geotechnical Designers and environmental specialists, will be responsible for scoping the extent of ground investigation works, the preparation of tender documents, and the interpretation of results produced in the factual geotechnical report. It is advisable that the physical characteristics of the Project, such as structure locations, variations to existing ground levels and the like are reasonably established prior to scoping the ground investigation surveys. This allows ground investigation surveys to be targeted to the most appropriate locations.

The Project Manager will have regard to the geotechnical certification requirements of *DN-ERW-03083 Managing Geotechnical Risk (to be published)* when scoping the extent of ground investigation works. Where areas of complex ground conditions are encountered, consideration should be given to follow-up tests and studies that may be required to establish the full nature and extent of such areas.

Where ground investigation works are proposed within a designated European site or within an area with the potential to impact a designated European site, it may be necessary to undertake Appropriate Assessment screening. Any works required as part of the Project to be carried out in Natura 2000 sites may only be carried out in accordance with the applicable legislative and regulatory requirements.

In accordance with any agreement currently in place between TII, Irish Farmers Association, and the relevant government department, it may be necessary to financially compensate landowners affected by intrusive works associated with the ground investigation surveys. The Project Liaison Officer will prepare a schedule of payments to affected landowners, based on these rates and will submit the schedule to TII for approval. The 'As-built' locations of exploratory holes and pits should be established before determining the compensation due to landowners as these locations may vary from those proposed in the tender documents, which may in turn lead to variations in the calculation of compensation due to landowners.

The Project Manager will ensure that ground investigation data is presented in an appropriate format for incorporation into future works requirements.

The Project Manager will be responsible for arranging the evaluation of tender returns by an appropriately qualified and experienced independent assessment board. Once the Tender Assessment Process is complete, a recommendation may be made to TII to accept one of the tenders received. As part of the Tender Award Recommendation (TAR), it will be necessary to prepare a Tender Report, which will summarise the Tender Assessment Process and formally recommend the Award of the Contract.

The Project Manager will submit the completed Tender Report to TII for approval with a recommendation to appoint a Tenderer. The Tender Report will be accompanied by a Tender Award Recommendation Sheet (TARS), duly completed by the Sponsoring Agency. Tender Reports prepared by the Sponsoring Agency shall comply with obligations and requirements deriving from applicable procurement legislation (for example, *S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016 &c.*).

### **3.1.8 Licencing Requirements**

Environmental evaluation may identify the need to obtain permits and licences to facilitate Project construction or operation. Permits and licences may be required for elements from effluent discharge to environmental permits or licences.

The requirement for licences is Project specific and the need for permits or licences will be determined on a Project need basis. Permits or licences may be required from the following:

- Environmental Protection Agency (and/or relevant Waste Authority);
- Inland Fisheries Ireland;
- Irish Rail;
- Irish Water;
- National Monuments Service;
- National Parks and Wildlife Service, including Derogation Licences; and
- Office of Public Works.

This list is not exhaustive, the Project Manager must ensure that all required licences for the Project have been obtained taking cognisance of the Project features, location, and interaction with the receiving environment.

Details on all licencing requirements must be included in the environmental evaluation reporting.

### **3.1.9 Design Requirements**

The purpose of Phase 3 is to develop the design of the preferred option to a stage where sufficient levels of detail exist to establish land-take requirements and to evaluate potential environmental impact. The design will be outlined within a Design Report.

This manual outlines the principal design milestones with respect to a major national road project, but does not purport to be exhaustive. The experience and professional judgment of those advancing the Project is required.

In addition to outlining the principal geometric parameters in advance of commencing design development it is necessary to outline the design parameters associated with bespoke design elements, if applicable. Bespoke design elements can include tunnel design parameters, intelligent transport system design requirements and the like. Where confusion as to what may constitute a bespoke element exists, the Project Manager will liaise with TII.

#### **3.1.9.1 Geometric Layout**

The geometric layout (mainline, side roads, slip lanes etc.) of the Project will be designed in accordance with TII Publications.

Prior to developing the Project geometric design, the Project Manager will prepare a Principal Geometric Parameters Report outlining the main design parameters that have been determined for the Project, which will form the basis of the detailed design. These parameters will have been determined via option development, incremental evaluation, the refinement of options, and option appraisal during Phase 2. A template, outlining the information to be contained in the Principal Geometric Parameters Report, is contained in **Appendix A3.1**.

The Project Manager will submit the Principal Geometric Parameters Report to the Sponsoring Agency Management Group for review prior to the commencement of detailed design work.

The Project Manager will detail the determination of the required level of service, including the cross section selection, within the TMR. The cross-section will be designed in accordance with TII Publications. Where various cross sections superficially meet the requirements of TII Publications it may be prudent to undertake a CBA, using the alternative road type cross sections, to investigate which produces the optimum Benefit to Cost Ratio (BCR).

#### **3.1.9.2 Ancillary Geometric Design Elements**

The Project Manager will take cognisance of the requirements of TII Publications, liaise with TII, and liaise with the emergency services regarding the requirement to provide additional design elements such as emergency accesses, emergency crossing points, emergency turnaround areas, Garda observation platforms, service areas etc. Where required, such elements will be designed in accordance with relevant TII Publications.

#### **3.1.9.3 Strategy for Junctions & Side Roads**

The Project Manager will develop a junction strategy for the Project having regard to DoECLG (2012) *Spatial Planning and National Roads, Guidelines for Planning Authorities*, local access requirements, the mainline carriageway cross-section, and corresponding permitted junction types in accordance with TII Publications. Junction options will be developed via incremental analysis.

The Project Manager will prepare a Junction Strategy Report for the Project. An outline template for a Junction Strategy Report is contained in **Appendix A3.2**.

The Project Manager will submit the Junction Strategy Report to the Sponsoring Agency Management Group for review.

#### **3.1.9.4 Site Clearance**

The Project Manager will identify measures to control and remove waste, both hazardous and other, associated with Project development. In this respect, the Project Manager will have regard to the TII Standard *GE-ENV-01101 The Management of Waste from National Road Construction Projects* and relevant EPA guidance. The Project Manager must comply with regulatory requirements and statutory requirements and must take cognisance of guidelines prepared by regulatory and statutory bodies, and guidelines prepared by TII when identifying measures to control and remove waste.

This will include the identification of measures to control and remove noxious weeds and non-native invasive alien plant species and waste earthworks materials generated within the design corridor. The Project Manager will have regard to the *NRA Guidelines on the Management of Noxious Weeds and Non-Native Invasive Species on National Roads* and any other relevant TII Publications. Consideration will be given to the treatment of noxious weeds and non-native invasive alien plant species in the design corridor in advance of Phase 5. This is desirable given the considerable time periods which are associated with treatment options.

The cost (including costs associated with obtaining necessary licences / certificates / permits) and timing implications associated with the control and removal of waste will be fully appraised by the Project Manager and appropriate strategies identified to mitigate any project risks in this regard.

#### **3.1.9.5 Boundary Fencing Requirements**

When determining land acquisition requirements, the Project Manager will consider fencing requirements. Consideration must be given to both horizontal and vertical profiles along the land acquisition boundary. This is the case as some fencing cannot be installed along rapidly diverging horizontal and vertical alignments. Wherever possible the Project Manager will avoid excessive changes in direction, angles, and curves along the fence line. For example, timber post and tension mesh fencing on national roads requires that a smooth vertical profile be prepared before the fence can be installed (refer to TII Standard Construction Details *CC-SCD-00320* and *CC-SCD-00321*). When the fencing is to traverse through uneven topography minor earthworks may be required to facilitate the installation of the fencing. Additionally, where poor ground conditions prevail, requirements for concrete footings and/or ground improvement works may be required for the installation of fencing.

Similarly, where mammal proof fencing is required (refer to TII Standard Construction Details *CC-SCD-00319* and *CC-SCD-00324*) its requirements, including embedment and associated landtake, will be considered.

#### **3.1.9.6 Road Edge Design**

Consideration will be given to roadside hazards and the provision of a clear zone adjacent to the road at an early stage in the project development. This is necessary so as to decrease the need for Vehicle Restraint Systems (VRS) and create a more forgiving roadside in line with the requirements of DN-GEO-03036 Cross Sections and Headroom.

The Project Manager will ensure roadside hazards are identified as part of the design process and hazard mitigation or modification of the road layout, or roadside elements, is implemented where possible to create a passive roadside. Where this cannot be reasonably achieved, and the risk to road users remains, it will be necessary to provide a VRS in accordance with *DN-REQ-03034 Safety Barriers*.

### **3.1.9.7 Drainage**

The Project Manager will prepare a drainage design, to an appropriate level of detail, for the Project in accordance with TII Publications.

It is necessary, but not limited, to outline proposals for carriageway drainage, proposals for bridge drainage, culverting requirements, outfall locations, and any mitigation works such as the provision of oil/petrol interceptors, silt traps, wetlands, and attenuation ponds.

Specialised drainage proposals may be required for Projects located in water-sensitive areas or Projects that require a higher than normal level of performance (refer to *DN-DNG-03065: Road Drainage and the Water Environment*).

The Project Manager will ensure that attenuation / treatment / spillage ponds are sized in accordance with TII publications and that sufficient land is acquired to facilitate their construction and operation. Sediment, Erosion, and Pollution Control requirements associated with constructing the Project will be set out within the environmental evaluation documentation.

The Project Manager will submit drainage related consent applications, such as Section 50 applications, in accordance with the requirements of relevant legislation and prescribed bodies including, but not limited to, OPW, Irish Water, EPA, and Local Authorities.

### **3.1.9.8 Services**

The Project Manager will document all service conflicts associated with the Project (e.g. electricity, telecom, water, gas, broadband and the like) and will outline the proposals for diverting these services, including those to be carried out prior to construction.

It is necessary to meet with service providers to determine and agree service diversion routes and service provider requirements for service diversions such that these can be reflected in the Project design. Such routes and requirements must be determined during Phase 3 and cannot be postponed until Statutory Approval has been received. The Project Manager must satisfy themselves that the impacts of service diversions on Project scope and programme have been considered and that implications have been incorporated within the environmental evaluation (e.g. the visual impact of diverting HV electricity pylons) and land acquisition documentation.

The Project Manager will prepare a cost estimate for the diversion of all services impacted by the Project. This estimate will be included in the Target Cost which will be used to develop the Total Scheme Budget. In the case of difficult or complex diversions (e.g. high voltage power lines or fibre optic telecommunication cables) these diversions can only be carried out by the relevant service provider and a cost estimate for this work should be sought from the service provider.

### **3.1.9.9 Earthworks**

A summary of the ground conditions determined via the ground investigation contract should be prepared alternating between areas of cut, fill, and at-grade. This will contribute to the determination of the optimal geometric layout.

A Project earthworks balance will be prepared highlighting the principal quantities along the Project, including areas where unacceptable material will need to be excavated and replaced and areas where additional acceptable material can be sourced within the proposed Project footprint, if required. The net cut/fill and surplus/deficit or balance should be stated. Where a surplus or deficit of material presents the Project Manager will identify material deposition or borrow areas. In certain cases, it may be appropriate to include material deposition or borrow areas within the project design and environmental assessment.

In preparing the Project earthworks balance the Project Manager should consider constraints to mass haul routes (e.g. major rivers and railway crossings). The Project Manager will comply with the geotechnical certification requirements of *DN-ERW-03083 Managing Geotechnical Risk (to be published)* when undertaking earthworks design.

The Project Manager will identify earthworks, including hazardous waste, likely to be generated during the construction phase. Possible reuse and recycling over disposal, via energy recovery or landfill, should be prioritised. The Project Manager will have regard to relevant waste legislation when undertaking the earthworks design. Measures for managing construction waste will be set out within the environmental evaluation documentation. The cost (including costs associated with obtaining necessary certificates / permits / licences) and timing implications associated with the control and removal of waste will be fully appraised by the Project Manager.

The Project Manager will prepare a Vertical Alignment Justification Report summarising the Project earthworks balance. This report will outline proposed earthworks operations and the implications, if any, which these may have upon construction periods or Project scope. The Project Manager will submit the Vertical Alignment Justification Report to the Sponsoring Agency Management Group for review.

### **3.1.9.10 Pavement**

The Project Manager will prepare a pavement design for the Project in accordance with TII Publications.

### **3.1.9.11 Kerbs, Footways, and Paved Areas**

The Project Manager will prepare a Kerbs, Footways / Cycleways, and Paved Areas layout for the Project in accordance with TII Publications.

### **3.1.9.12 Traffic Signs and Road Marking**

The Project Manager will prepare a Traffic Signs and Road Markings layout for the Project in accordance with TII Publications (refer to *DN-TSM-03082 Traffic Signs Approval Procedure*).

The Project Manager will ensure that the proposed road can be clearly and safely signposted in accordance with the requirements of the *Traffic Signs Manual* published by DTTaS while also taking account of clear zone requirements (see 3.1.9.6 above).

### **3.1.9.13 Lighting, Information and Communication Technology**

If necessary, the Project Manager will prepare a lighting layout and will determine requirements for information and communication technology, including Intelligent Transport Systems (ITS) and spare service ducts, in accordance with TII Publications.

### **3.1.9.14 Structures**

#### **3.1.9.14.1 TII Approval of Structures**

It is necessary to comply with the Technical Acceptance procedures for Structures as set out in *DN-STR-03001 Technical Acceptance of Road Structures on Motorways and Other National Roads*.

Depending on the procurement process identified for the Project, formal Technical Acceptance may not be required until Phase 6 Construction and Implementation. Notwithstanding, options reports and structure design reports for families of structures should be referred to the Senior TII Engineering Inspector by the Project Manager during Phase 3. Comments from TII, if any, will be incorporated into the design of all structures.



### **3.1.9.14.2 Iarnród Éireann**

Where a Project crosses a railway line, prior to submitting an application to the Competent Authority for approval, it will be necessary to obtain a 'Letter of Initial Acceptance' of the proposed structure from Iarnród Éireann together with the consent (at minimum a letter of 'No Objection in Principle') from the Commission for Railway Regulation.

The Project Manager will ensure that sufficient land is acquired to construct and maintain the railway structure(s), taking account of any conditions imposed by Iarnród Éireann and the Commission for Railway Safety in granting their acceptance.

Detailed submissions, in accordance with *Iarnród Éireann Technical Guidance Document CCE-TMS-310 Guidance on Third Party Works*, as well as liaison with Iarnród Éireann personnel will generally be required. The Project Manager will liaise with Iarnród Éireann personnel as required and will refer any agreed design submissions for structures to Iarnród Éireann and TII as required.

It is advisable to develop design proposals for railway structures and commence the interaction and communication process with Iarnród Éireann and the Commission for Railway Safety at the earliest possible date as there can be significant delays in obtaining Iarnród Éireann / Commission for Railway Safety acceptance.

### **3.1.9.14.3 Inland Fisheries Ireland**

The Project Manager must consult with Inland Fisheries Ireland (IFI) in relation to requirements regarding the protection, management, and conservation of Ireland's inland fisheries and sea angling resources. This can include fish passage when designing bridges, culverts, or any re-routing of watercourses. It may also include embedment depths and clear height requirements.

### **3.1.9.14.4 Office of Public Works (OPW)**

The Project Manager must submit consent applications to the OPW for the creation and modification of watercourses, embankments, weirs, and bridges in accordance with OPW and TII Publications requirements. The OPW provide guidance on submitting applications in *A Guide to Applying for Consent under Section 50 of the EU (Assessment and Management of Flood Risks) Regulations SI 122 of 2010 and Section 50 of The Arterial Drainage Act, 1945*.

Where the OPW require modifications to the proposed works, particularly in relation to structural heights and clearances, the implications upon Project design will be examined. For example, with respect to road projects, heights and clearances may have implications for vertical alignments, earthworks balance, and the overall project footprint, potentially leading to difficulties in constructing the Project within the land acquisition boundary if not addressed in time.

### **3.1.9.14.5 Miscellaneous Requirements for Structures**

Regard will be had to non-statutory requirements that may arise, including, but not limited to, navigation and aesthetic requirements. Consultation with other relevant parties, such as Waterways Ireland, should be considered in this regard.

## **3.1.9.15 Land Use and Accommodation Works**

The Project Manager will ensure that meetings with stakeholders are held as soon as possible to discuss access and accommodation works. Assumptions of the levels of accommodation works required for a project should be avoided as much as possible.

Following stakeholder meetings, the Project Manager will determine the extent of accommodation works required in conjunction with the PLO. Accommodation works may be required to reduce the impact of the Project upon stakeholders. This may include providing access to retained lands via underpasses (livestock and machinery) and access tracks. It may include boundary treatment requirements and, where necessary, replacement farm buildings and other installations (e.g. cattle crushes), as appropriate.

Where boundary treatments are proposed it is necessary to acquire sufficient lands to enable construction of such boundary treatment, including associated foundation works while also taking account of any clear zone requirements (see 3.1.9.5 above).

The Project Manager will prepare an indicative cost estimate of the level of accommodation works required for the Project and will include this estimate in the Target Cost which will be used to develop the Total Scheme Budget.

### **3.1.9.16 Maintenance Requirements**

The Project Manager will examine how the Project will be maintained in the future. **Appendix A3.3** highlights key issues that should be considered when designing for future maintenance. In this regard, the Project Manager will liaise with TII to discuss these and other (tunnels etc.) maintenance issues and to discuss operation and maintenance requirements.

Adequate provision will be made for miscellaneous equipment such as traffic counters, weather stations, and other such apparatus as required by TII Publications, including safe means of access.

### **3.1.9.17 Construction Requirements**

It is necessary to consider construction requirements whilst designing the Project. During Phase 3, it is necessary to identify lands required to facilitate construction. This includes lands required to act as compounds for construction, lands necessary to facilitate offline bridge construction or temporary stream divisions, material deposition or borrow areas in the case of surplus / deficit earthworks quantities, and additional lands for environmental mitigation.

Traffic management requirements will be considered as part of the project design and the potential environmental impacts will be evaluated.

Construction requirements related to design elements/features such as bridge and highway design will be outlined within the Project Design Report. Construction requirements related to environmental management and mitigation will be set out within the environmental evaluation documentation (e.g. Construction and Demolition Waste Management Plan).

It may be necessary to prepare a draft Environmental Operating Plan for inclusion within the environmental evaluation documentation to identify how construction practice commitments and requirements will be met.

### **3.1.9.18 Departures and Relaxations**

The Project may require departures and or relaxations from the requirements contained within TII Publications. Information on what constitutes a departure and what constitutes a relaxation is outlined within *GE-GEN-01005 Departures from Standards and Specification* with further details contained within individual TII Publications. Allowable relaxations, and combinations thereof, are also outlined within individual TII Publications.

For new major national road projects, departures should not be proposed as this should be addressed during the Option Selection Process. However, in exceptional circumstances and where there is limited scope for alternative proposals (e.g. at tie-ins / interface with the existing road network and on-line upgrades), departures from standards may be considered.

The Project Manager will determine the need to apply for departures from standards. The Project Manager will ensure that all departures and relaxations incorporated into the design are recorded and submitted to TII for approval in accordance with *GE-GEN-01005*.

### **3.1.10 Environmental Mitigation Requirements**

The Project Manager will determine the requirements for environmental mitigation, including measures to ensure that environmental protection is achieved during the construction works. This may involve a consultation process with Statutory Consultees. Environmental mitigation will include, but is not limited to, mitigation associated with biodiversity, soils, hydrogeology, hydrology, landscape and visual, archaeology, agriculture, air, noise, human beings, and the interrelationship thereof.

Environmental mitigation works includes the management of noxious weeds and non-native invasive alien plant species.

The Project Manager must comply with regulatory requirements and statutory requirements, and take cognisance of guidelines prepared by regulatory and statutory bodies, and guidelines prepared by TII when determining the extent of environmental mitigation works necessary. The Project Manager must also review the overall suite of environmental mitigation works to check if individual mitigation measures contradict each other and/or have an undue impact on the buildability of the Project.

The Project Manager will prepare an indicative cost estimate of the level of environmental mitigation works required for the Project and will include this estimate in Target Cost which will be used to develop the Total Scheme Budget.

### **3.1.11 Land Acquisition Boundary Requirements**

The Project Manager will determine Project land take requirements and will determine the total number of land holdings affected and, as far as reasonably practicable, the total number of persons with an interest in the affected lands. The current and proposed land use of the lands impacted by the Project will be identified (e.g. agricultural, residential, commercial, other zoned lands). The number, if any, of residential and other buildings required to facilitate construction of the Project will be determined.

The Project Manager will ensure that sufficient lands are included within the land acquisition boundary to facilitate the construction and operation / maintenance of the Project including, inter alia, drainage outfalls and attenuation ponds, working spaces, service diversions, signs and associated foundations, severed holdings, environmental mitigation measures, traffic management, and accommodation works and will ensure that these lands are necessary for or incidental to the construction or maintenance of the Project.

An outline for items to be considered as part of land acquisition documentation is contained in **Appendix A3.4**.

### **3.1.12 Interaction with Planning Authorities**

The Project Manager will refer the design corridor to the relevant Local Authority Planning Department(s) in an appropriate digital format. The Project Manager will request that the Local Authority Planning Department(s) issue any planning applications within the Design Corridor which may influence Project design, or impact upon the underlying design assumptions, for observation.

When submitting observations to Local Authorities on any planning applications they have received near the extents of the Project design corridor, the Project Manager will have regard to DoECLG (2012) *Spatial Planning and National Roads, Guidelines for Planning Authorities*. Where it appears that a planning referral may impact Project design, the Project Manager will have regard to TII Publications and national policy.

### **3.1.13 Road Safety Audit Stage 1**

A Road Safety Audit Stage 1, in accordance with *GE-STY-01024 Road Safety Audit*, will be carried out on the project once design has been developed to a sufficient level of detail.

The audit will be completed and closed out prior to the final determination of the land acquisition requirements in order to ensure that sufficient land is being acquired in order to safely accommodate all design elements.

The Road Safety Audit Stage 1 report, together with the Safety Audit Feedback Form, duly signed by the relevant parties will be included in the Design Report. Any necessary changes resulting from the audit will be incorporated into the design.

### **3.1.14 Design Peer Review**

Once the Project has been developed to an appropriate level of detail as outlined above it will be necessary to carry out a Peer Review. The Project Manager will ensure issues such as those outlined within **Appendix A3.5** have been satisfactorily addressed prior to the Design Peer Review.

The Project Manager may issue items as outlined within **Appendix A3.6** to the Peer Reviewers, upon request, in advance of Design Peer Review. The Project Manager will ensure that these deliverables are reviewed, as appropriate, by the peer reviewers in advance of the Design Peer Review. When submitting deliverables to the peer reviewers, the Project Manager will ensure that the deliverables meet the Project objectives. The issue of the deliverables in a collated package to the Peer Reviewers is collectively entitled 'Draft Design Report'.

The design will be substantially completed prior to undertaking the Design Peer Review. Following successful Design Peer Review the Project design will be developed for submission for statutory approval and the Design Report and environmental evaluation reporting may be finalised. The Project Manager will ensure that an appropriate response to issues raised at Design Peer Review is prepared and submitted to the Peer Reviewers within the timeframe specified by the Peer Reviewers. Where a response is required it will be included within the final Peer Review Report. It will be necessary to obtain formal acceptance of the response and the Peer Review Report from the Peer Reviewers. Such acceptance does not remove any obligation from the designers in carrying out their duties to ensure a fully considered design is completed and all issues comprehensively addressed.

### **3.1.15 Public Display**

On some Projects where it is anticipated that publication of the land acquisition documentation and development approval documentation will quickly follow Phase 3 (or where the Project has been dormant for a period), it may be necessary to hold a Public Display to alert stakeholders to key elements of the Project's design.

This additional public display is optional and will only take place if deemed necessary by the Project Manager. However, in instances where significant changes have been made to the Project it may be necessary to substitute the Public Display with a Public Consultation. The requirements for such public consultation would be identical to those for previous consultations. The Project Manager will consult with the Sponsoring Agency Management Group regarding the requirement or otherwise to hold a public consultation and whether a subsequent Public Display would also be required.

### **3.1.16 Design Report**

Following the collation of the 'Draft Design Report' and the completion of the Design Peer Review, it will be necessary to finalise the Design Report for the Project. A template for the Design Report is contained in **Appendix A3.7**.

The layout of the Design Report drawings should take account of the need to co-ordinate with environmental evaluation documentation and land acquisition documentation. It is recommended that drawings and environmental evaluation figures (e.g. noise maps and the like) are prepared to the same extents, in A3 Format, and to a scale of 1:5,000. These can be enlarged for display purposes at Oral Hearing to A1 format at a scale of 1:2,500.

In this way, the drawings, environmental evaluation drawings and land acquisition documentation will all cover the same area leading to consistency between them.

Drawings prepared as part of the Design Report should be reproduced or directly referenced as part of the environmental evaluation documentation, as required. Drawings should include the minimum requirements per **Appendix A3.7**.

The Project Manager is responsible for preparing the Design Report with the relevant Sponsoring Agency Senior Engineer signing off on its completion.

### **3.1.17 Health & Safety Risk Assessment of the Project Design**

The Project Manager will undertake a Health and Safety Risk Assessment of the Project Design to identify any risks associated with the construction, operation, and maintenance of the Project and nor does it remove the requirement for the Designers to carry out appropriate risk assessments on the design.

This assessment does not negate the requirement to take account of the principles of prevention as required by health and safety legislation and regulations when assessing and developing the Project.

The Health & Safety Risk Assessment of the Project Design will also examine how the Project is to be maintained (e.g. grass cutting on side slopes, maintenance of structures among others, access for maintenance etc.).

The PSDP will include the Health and Safety Risk Assessment of the Project Design within the Project Safety File.

### **3.1.18 Programme & Design Changes / Environmental Evaluation Changes**

If environmental evaluation requires additional surveys, which could have an impact on the Project Programme, the Project Manager will notify the Steering Group and prepare a revised Project Programme for delivery to the end of Phase 3.

The Project Manager will also inform the Steering Group of significant design changes arising from the environmental evaluation process.

### **3.1.19 Dealing with Late Changes to Scope**

Some changes to scope may have been introduced to the Project during Phase 3 as Project Appraisal, Peer Review, and the Road Safety Audit are completed. The Project Manager will ensure that any scope changes have been incorporated into the Design Report and that, where necessary, changes to the Project cost estimates have been considered in accordance with *TII CMM* and that amendments to costs have been reflected in *TII PAG* deliverables.

### **3.1.20 Schedule of Environmental Commitments**

All the information contained in the Design Report, together with the lands within the land acquisition boundary, will be considered as part of the environmental evaluation (and as appropriate lands external thereto but within the zone of influence).

All mitigation measures recommended as part of the environmental evaluation process will be extracted and reported separately as part of the environmental evaluation reporting and will be titled Schedule of Environmental Commitments. This Schedule will contain an appropriate cross-reference from paragraph or table of the main environmental evaluation reporting.

The Schedule of Environmental Commitments will summarise the mitigation measures proposed to avoid, reduce or, where possible, remedy environmental effects on the environment.

Further guidance on the production of the Schedule of Environmental Commitments is provided in TII Publications (refer to Chapter 5 of *National Roads Authority Environmental Impact Assessment of National Road Schemes – A Practical Guide*). The cost of these environmental commitments will be included in the Target Cost which will be used to develop the Total Scheme Budget using current applicable rates in accordance with the *TII CMM*. If the cost of a particular commitment cannot be readily estimated, then a review of that specific item should be carried out to assess if it can be better defined so that a reliable cost estimate can be prepared.

It is important to use definitive language (e.g. 'will' or 'shall' and to avoid the use of ambiguous language (e.g. 'would' or 'should') when compiling the Schedule of Environmental Commitments.

It is imperative that the Schedule of Environmental Commitments contains clear, definitive and unambiguous mitigation measures, notwithstanding that in some instances, a performance standard may be specified.

### **3.1.21 Land Acquisition - Procurement of Property Valuation & Legal Advisors**

It may be necessary to engage Property Valuation Advisors and/or Legal Service Providers, if such services are not within the Project scope, when preparing land acquisition documentation. It is advisable to liaise with the TII Senior Engineering Inspector prior to preparing the brief for Property Valuation Advisors and/or Legal Service Providers. An outline brief for Property Valuation Advisors is provided in **Appendix A3.8**. An outline brief for Legal Service Advisors with respect to land acquisition issues is provided in **Appendix A3.9**.

### **3.1.22 Land and Property Cost**

Once the land acquisition requirements have been determined, and prior to preparation of the land acquisition documentation, it will be necessary to undertake an estimate of land costs to take account of all land associated costs including; land acquisition, property acquisition, injurious affection, severance, disturbance (temporary and permanent), interest, and fees. This estimate will be carried out by the Property Valuation Advisors for the Project in accordance with the *TII CMM*.

This estimate will be included in the Target Cost which will be used to develop the Total Scheme Budget.

### **3.1.23 Preparation of Land Acquisition Mapping, Order, Schedule & Notice**

Following completion of design and environmental evaluation the final land acquisition requirements (to include, where necessary, lands for environmental mitigation measures, construction &c.) will be determined. The land acquisition process(es) via which land will be acquired for the Project will be approved by the Steering Group. It is advised that the Project Manager obtain expert legal advice when progressing land acquisition processes as errors or omissions can potentially jeopardise the validity thereof. The processes can include:

- Compulsory Purchase Order (CPO);
- Motorway Order (MO);
- Protected Road Order (PRO);
- Busway;
- Service Area; and
- Voluntary Acquisition/agreement.

or a combination of these.

The Project Manager will ensure that land acquisition documentation is prepared in accordance with current legislation and in accordance with prescribed forms.

In addition to formal land mapping requirements, individual landowner maps should be prepared to show the extent of the proposed land acquisition for everyone with an interest in the lands included within the land acquisition documentation. These maps should accompany the prescribed notice to landowners.

Lands in the ownership of the Iarnród Éireann Group of Companies (i.e. railway lands) should generally be included in the land acquisition documentation with a proviso added that its inclusion is for designation purposes only and not for acquisition purposes (railway line will remain operational).

Some lands required to construct the Project may already be in the ownership of the Sponsoring Agency or TII. It will nevertheless be necessary to include such lands within the land acquisition documentation.

Lands only required for construction may be acquired temporarily. Such lands should be segregated within the land acquisition documentation. The strategy for dealing with these lands should be considered in terms of cost effectiveness and discussed with the Steering Group.

### **3.1.24 Cost, Risk, and Value Management Procedures**

The following processes, in accordance with the *TII CMM*, are required for Phase 3:

- Cost Management Strategy including preparation of Target Cost (TC) and Total Scheme Budget (TSB);
- Risk Management Strategy including mitigation plans, Key Risks Schedule; Qualitative Risk Assessment; Quantitative Risk Assessment; and Risk Management Meetings; and
- Value Management Strategy including implementation status, Value Decisions Tracking Register (including assessment of Vertical Alignment Justification Report); and Value Management Meetings.

All Cost, Risk, and Value management processes and deliverables will be updated as Phase 3 progresses and applied to Project development. Cost, Risk, and Value meetings will be held during Phase 3 as appropriate.

The outputs / conclusions / recommendations from designated risk and value meetings shall be presented in report format to the Steering Group for review as cost, risk, and value matters will be discussed at each meeting. These reports will set out how outputs / conclusions / recommendations from the meetings will be realised.

It is necessary to ensure that cost, value, and particularly risk deliverables and issues are appropriately managed. It is necessary to assign deliverables and issues to stakeholders most capable of achieving optimum outcomes. For example, policy and strategy related deliverables and issues will be best managed when assigned to TII, whilst matters requiring regular monitoring will be best managed when assigned to the Project Manager.

The Target Cost and the Total Scheme Budget will include the land and property costs, the cost implications of any design amendments resulting from the Design Peer Review, the cost implications of any environmental mitigation, and the cost implications of any other design amendments.

TII will determine the final Target Cost and final Total Scheme Budget taking account of the Quantitative Risk Assessment.

### 3.1.25 Updated TII PAG Deliverables

TII PAG deliverables will be updated (TMR, CBA, PABS) taking cognisance of the approved Target Cost and Total Scheme Budget.

### 3.1.26 Detailed Business Case

The Detailed Business Case (DBC) is the primary deliverable from the project appraisal process for Phase 3. *PAG Unit: 8.0 – Business Case* outlines the structure and detail to be provided in the Detailed Business Case.

The DBC brings together the TII PAG deliverables for Phase 3 including the Project Brief, Transport Modelling Report, Cost Benefit Analysis, and Project Appraisal Balance Sheet to form a complete statement documenting the rationale behind, and justification for the Project following the completion of Phase 3 Design and Environmental Evaluation.

In accordance with the requirements of *PAG Unit: 8.0 – Business Case* the Project Manager will undertake Financial Appraisal and Exchequer Analysis, as necessary.

The Project Manager will submit the DBC to TII for audit irrespective whether or not TII are the Sanctioning Authority. The DBC may also require to be sent to the Department of Transport, Tourism and Sport (and subsequently to the Department of Finance and Public Expenditure) to be further audited for compliance with the Public Spending Code. Following receipt and incorporation of comments (if any), the Sponsoring Agency will formally submit the DBC to the Sanctioning Authority for approval to proceed to publication of the statutory orders.

### 3.1.27 Project Gate 3

The Project Manager will ensure that deliverables required for Phase 3 are finalised and issued to TII at the end of Phase 3.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of project maturity using the template in **Appendix A3.10**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 4 when TII accept the Gate Review Statement and issue consent to proceed to Phase 4.

### 3.1.28 Sanctioning Authority Approval Point

A formal Sanctioning Authority Approval Point is required in line with the *Project Management Guidelines* as the decision to proceed to Phase 4 entails commencing statutory processes. The Sponsoring Agency will not proceed beyond the end of Phase 3 without having received Sanctioning Authority approval to do so.

In cases where TII are the Sanctioning Authority for this Sanctioning Authority Approval Point, the Sponsoring Agency may submit the request for Sanctioning Authority approval and the Gate Review Statement to TII at the same time. Under these circumstances the request for Sanctioning Authority approval should be submitted by way of a separate covering letter from the Gate Review Statement.

### 3.1.29 Lessons Learned Register

At the end of Phase 3 it will be necessary to prepare the Lessons Learned Register.

## 3.2 Deliverables

The deliverables for Phase 3 are listed below:



Source	Deliverables / Process
PMG	Design Report.
PMG	Signed Design Report Peer Review Report.
PMG	Environmental Deliverables (EIA screening and Appropriate Assessment screening reports, EIAR, NIS, &c., as appropriate).
PMG	Statutory process documentation as applicable (CPO/MO/PRO/Part 8 Documents, &c.).
PMG	CPO/MO/PRO/&c. drawings and schedules.
CMM	Target Cost 1 and Total Scheme Budget.
PAG	Detailed Business Case.
PMG	Updated Project Execution Plan.
PMG	Phase 3 Gate Review Statement.

## 4 Phase 4 Statutory Processes

The purpose of Phase 4 is to compile documentation and participate in oral hearing(s) as required by the statutory processes to ensure that the proposed project is developed in accordance with planning, environmental and other relevant legislation.

The processes and deliverables required to complete Phase 4 are outlined in **Figure 9**.

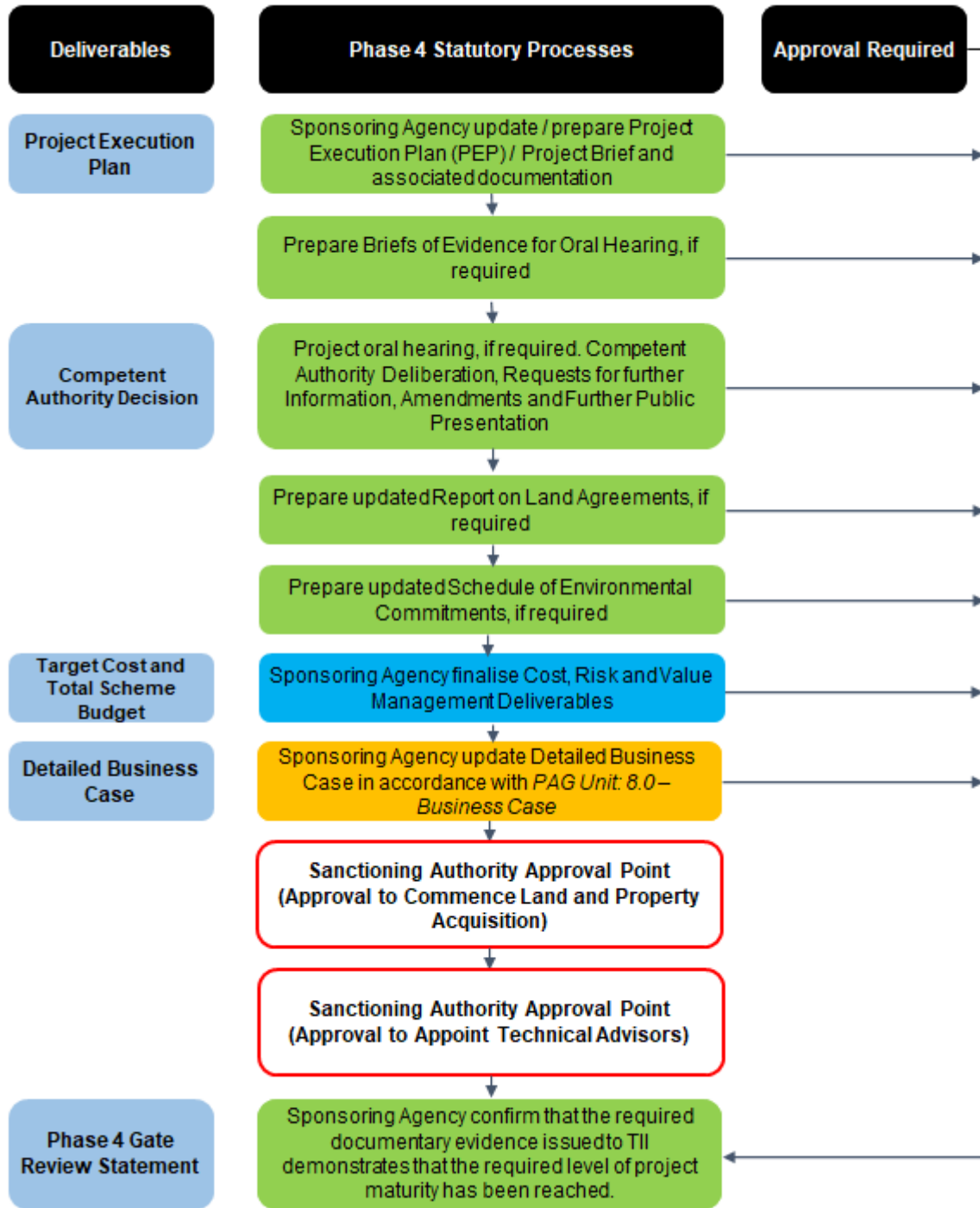


Figure 9 Workflow Diagram Phase 4

The purpose of Phase 4 is to advance the Project through the Statutory Processes. The appropriate Statutory Process will have been determined during earlier phases wherein the appropriate environmental evaluation is undertaken and reported. Permission to commence the Statutory Processes must be obtained from the Sponsoring Agency.

It is essential that the Project Manager directly consults the relevant legislation when progressing the Project through the statutory processes to ensure that the correct processes and procedures, such as notifications, are being followed. It is advisable that expert legal advice be obtained when advancing the Project through the Statutory Processes as errors or omissions can potentially jeopardise Project success. Advancing Projects through the Statutory Processes generally involves a public, or oral, hearing and it is essential that the Project Manager ensures that the presentation of the evidence in support of the Project is prepared, handled, and communicated in a clear and concise manner.

A list of statutory procedures that may relate to major road projects are listed in **Appendix A4.1**.

## **4.1 Processes**

### **4.1.1 Project Brief and Project Execution Plan (PEP)**

During this phase, the **Project Brief** and **PEP** should be updated by the Project Manager, as required, to take cognisance of the Statutory Processes.

### **4.1.2 Approval to Submit Development Application Documentation**

The Sponsoring Agency must authorise the submission of the development application documentation (environmental evaluation documentation and, if applicable, land acquisition documentation) to the Competent Authority. Where the appropriate Competent Authority is An Bord Pleanála, the Project Manager will prepare reports for the Chief Executive of the Sponsoring Agency recommending submission of the required development application documentation. Separate reports are required for the environmental evaluation documentation and the land acquisition documentation. Reports for land acquisition will be accompanied by an Engineer's Report certifying that the lands contained in the land acquisition documentation are necessary and sufficient for the purpose of constructing and maintaining the Project. An outline of the information to be contained in the Engineer's Report is contained in **Appendix A4.2**. The reports will be endorsed by the Sponsoring Agency Senior Engineer and the Sponsoring Agency Director of Services.

These reports will be approved by the Sponsoring Agency Chief Executive via Chief Executive's Orders. These orders will be prepared in accordance with individual Sponsoring Agency procedures and should refer to the relevant enabling legislation.

### **4.1.3 Development Application Fees**

Reference shall be made to An Bord Pleanála to determine the relevant development application fees required. Information in this regard is available on the An Bord Pleanála website ([www.pleanala.ie](http://www.pleanala.ie)).

### **4.1.4 Land Acquisition – Letter of Intent**

Prior to formally serving land acquisition notices on affected landowners and submitting land acquisition documentation to the Competent Authority, it is necessary to issue, via registered post, a letter of intent to publish the land acquisition documentation to affected landowners included in the land acquisition documentation.

A letter will be issued to each affected landowner included in the land acquisition documentation as a check on the accuracy of the records used to prepare the documentation.

Sufficient time should be given to enable corrections to be made to the documentation, should some notices be returned undelivered. The letter of intent will outline the statutory requirements regarding the processes adopted.

#### **4.1.5 Land Acquisition – Public Notice**

Before submitting the land acquisition documentation to the Competent Authority, a public notice of the making of land acquisition must be made. The required notice, advertising, and observation periods vary depending on the land acquisition process adopted (Protected Road Order, Motorway Order etc.).

#### **4.1.6 The Oral Hearing**

In the event that there are submissions or objections to the development application documentation, An Bord Pleanála may, at its absolute discretion, hold an Oral Hearing into the Project.

Prior to the Oral Hearing, if required, the Schedule of Environmental Commitments will be extracted and submitted to An Bord Pleanála. The schedule should be updated to include any additional mitigation measures proposed since publication of the environmental evaluation reporting (e.g. in response to an objection). These additional measures should be agreed in the first instance with the Steering Group by the Project Manager before commitments are entered into with third parties. The Schedule will also be updated during the course of the Oral Hearing to take account of any further mitigation measures agreed by the Sponsoring Agency and/or as recommended by the Competent Authority to obtain development consent.

It is vital that the presentation of the evidence in support of the Project is prepared, handled, and communicated in a clear concise manner at the Oral Hearing. All findings and recommendations need to be reviewed and discussed with the relevant witnesses prior to Oral Hearing. The key witnesses and participants will be the same competent experts that undertook the environmental evaluation, prepared the associated documentation, reviewed and responded to all relevant submissions or objections, and are qualified to give such evidence. All issues likely to arise should be examined, and responses prepared, to give An Bord Pleanála the clearest possible understanding of the issues and resulting impacts, if any. An outline of items to be considered in advance of the Oral Hearing is contained in **Appendix A4.3**.

The Project Manager will ensure that appropriate information technology equipment and utilities are available at the proposed venue and will ensure that all necessary equipment is commissioned and operational in advance of the Oral Hearing. This will include appropriate audio-visual equipment, appropriate mobile data communications, appropriate information technology equipment (for example printers and data storage), and appropriate telecommunication equipment and services.

In advance of the Oral Hearing the witnesses will prepare briefs of evidence in relation to their field of expertise (e.g. noise, air quality etc.) which will be read into the record at the Oral Hearing. The Project Manager will be required to prepare a more generalised brief of evidence. An outline of items to be contained in the Engineer's brief of evidence is contained in **Appendix A4.4**.

In advance of, during, and after the Oral Hearing the Project Manager will respond to requests from An Bord Pleanála and respond to Project submissions and challenges.

#### **4.1.7 Competent Authority Deliberation**

##### **4.1.7.1 Part 8 Development**

Decisions on Part 8 Developments are a reserved function of the elected members of a local authority. Following consideration of the development approval documentation, the elected representatives may:

1. recommend the development of the Project, unless;
2. by resolution, it decides to vary or modify the development, otherwise than as recommended in the report, or; and
3. decides not to proceed with the development.

In addition to the legislative notification requirements, the Project Manager shall ensure that all Project stakeholders are informed of the local authority's decision.

#### **4.1.7.2 Appropriate Assessment / Environmental Impact Assessment**

In the case of applications to An Bord Pleanála (after an Oral Hearing, if required), the An Bord Pleanála Inspector prepares a report containing a recommendation to the Board. The Board then consider this recommendation and make a decision either:

1. to grant development approval for the proposed development, or
2. to make such modifications to the proposed development as it specifies in its decision and to grant development approval in respect of the proposed development as so modified, or
3. to grant development approval in respect of part of the proposed development (with or without special modifications), or
4. to decide to refuse to grant development approval for the proposed development.

An Bord Pleanála will notify the Sponsoring Agency, in writing, of its decision which will also be available for viewing, together with the Inspector's Report on An Bord Pleanála's website ([www.pleanala.ie](http://www.pleanala.ie)).

In addition to the legislative notification requirements, the Project Manager shall ensure that all Project stakeholders are informed of An Bord Pleanála's decision.

#### **4.1.7.3 Land Acquisition – Confirmation Notice**

Following Project approval and after the expiration of the statutory period for legal challenges, a confirmation notice in the prescribed form will be published in a local newspaper.

#### **4.1.7.4 Report on Land Agreement / Schedule of Environmental Commitment**

Following Project approval, the Project Manager will collate details of all agreements entered into with affected landowners.

The Project Manager will make the updated land agreements, the updated Schedule of Environmental Commitments, and a schedule of any development approval conditions available to the Steering Group. The Project Manager will inform the Steering Group of the implications, if any, which these updated requirements may have on the Project scope (programme, budget and quality).

#### **4.1.8 Updated Business Case**

The Project Manager shall review the project Target Cost and Total Scheme Budget and update them to incorporate any changes required arising from modifications to the project, amendments to the environmental mitigation strategy, landowner agreements entered into, etc. As part of this review, the Project Manger shall also update the project risk register.

The Project Manager will then update the Detailed Business Case to incorporate, inter alia, any modifications to the project imposed by the Competent Authority, the updated Target Cost and Total Scheme Budget and any relevant changes to the environmental mitigation.

The Project Manager will submit the DBC to TII for audit irrespective whether or not TII are the Sanctioning Authority. Following receipt and incorporation of comments (if any) from TII, the Sponsoring Agency will formally submit the DBC to the Sanctioning Authority for approval to proceed to commence land and property acquisition.

#### 4.1.9 Project Gate 4

The Project Manager will ensure that deliverables required for Phase 4 are finalised and issued to TII at the end of Phase 4.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of Project maturity using the template **Appendix A4.6**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 5 when TII accept the Gate Review Statement and issue consent to proceed to Phase 5.

#### 4.1.10 Sanctioning Authority Approval Point

A formal Sanctioning Authority Approval Point is required in line with the *Project Management Guidelines* as the decision to proceed to Phase 4 entails land acquisition (the decision to issue a Notice to Treat) and the commencement of the tender process to procure technical advisors to prepare tender documentation (if applicable). The Sponsoring Agency will not proceed beyond the end of Phase 4 without having received Sanctioning Authority approval to do so.

In cases where TII are the Sanctioning Authority for this Sanctioning Authority Approval Point, the Sponsoring Agency may submit the request for Sanctioning Authority approval and the Gate Review Statement to TII at the same time. Under these circumstances the request for Sanctioning Authority approval should be submitted by way of a separate covering letter from the Gate Review Statement.

#### 4.1.11 Lessons Learned Register

At the end of Phase 4 it will be necessary to review and update the Lessons Learned Register.

## 4.2 Deliverables

The deliverables for Phase 4 are listed below:

Source	Deliverable / Process
PMG	An Bord Pleanála (ABP) / Competent Authority Decision.
CMM	Target Cost 2 and Total Scheme Budget.
PAG	Updated Detailed Business Case.
PMG	Updated Project Execution Plan.
PMG	Phase 4 Gate Review Statement.

## 5 Phase 5 Enabling and Procurement

The purpose of Phase 5 is to compile tender documentation to allow for the appointment of a Contractor to execute the Main Contract and to execute enabling works to facilitate the works.

The processes and deliverables required to complete Phase 5 are outlined in **Figure 10**.

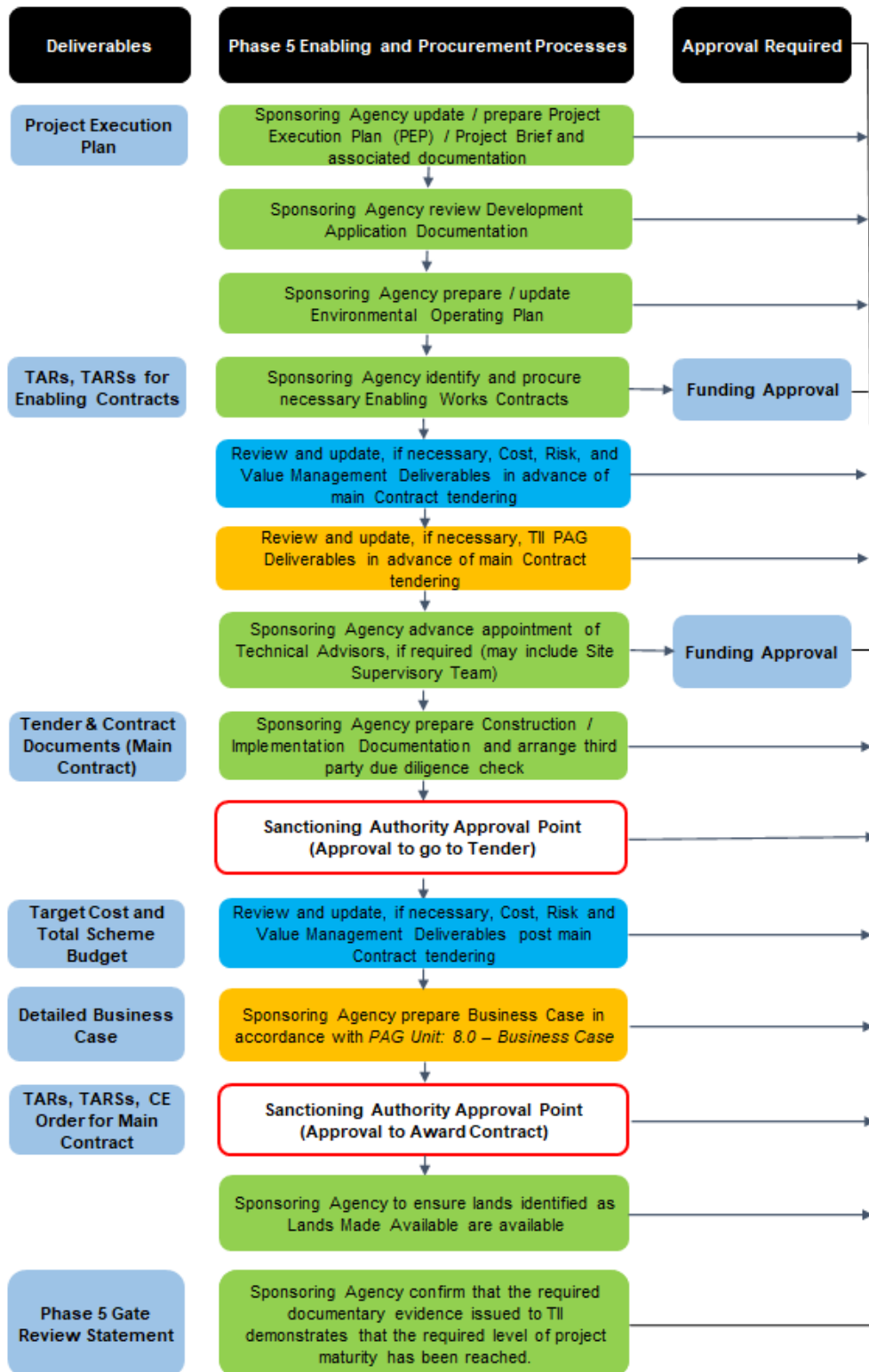


Figure 10 Workflow Diagram Phase 5

The purpose of Phase 5 is to procure the delivery of enabling works contracts, prepare construction / implementation documentation, and procure the construction and or implementation contract.

During Phase 5 the design may be refined and enhanced via 'value engineering'. Refinement and enhancement will be undertaken in accordance with regulatory requirements, statutory requirements, guidelines prepared by regulatory and statutory bodies, and guidelines prepared by TII. Refinement and enhancement will take cognisance of the approved Schedule of Environmental Commitments and development approval conditions, if any, imposed by the Competent Authority.

## **5.1 Processes**

### **5.1.1 Project Brief and Project Execution Plan**

During this phase, the Project Brief and the PEP shall be updated by the Project Manager, as required, to take cognisance of Enabling and Procurement.

### **5.1.2 Review of Development Application Documentation**

The Project Manager will review the design report, the environmental evaluation documentation including the approved Schedule of Environmental Commitments, the land acquisition documentation, and the development approval conditions, if any, imposed by the Competent Authority. This review provides an opportunity to undertake a concerted value engineering exercise to reduce Project costs and works requirements whilst maintaining functionality. This review is necessary as design standards or regulatory requirements upon which the Project was originally proposed may have been revised, or similarly design refinement measures consequent to 'value engineering' may have been proffered, since development approval and this review ensures that the proposed development is adequate to meet all contemporaneous requirements. The Project Manager will ensure that any requirements (including those of prescribed bodies), revised following Project approval, are examined for their implications on the lands necessary to construct the Project and for their implications upon development approval. This review should address the information presented in **Sections 5.1.2.1 to 5.1.2.6** and the outline of items within **Appendix A5.1**.

The Project Manager will notify the Steering Group if the review of the documentation, as described, has implications for Project scope or implications upon development approval. If additional costs, or cost reductions consequent to 'value engineering', are identified it will be necessary to prepare a revised Target Cost and Total Scheme Budget in accordance with *TII CMM*. If the review highlights implications on development approval this will require further examination and consideration in consultation with the Steering Group.

#### **5.1.2.1 Review of Land Agreements/Accommodation Works**

The Project Manager will review all land agreements and accommodation works agreements to ensure that they reflect amendments which arose during the statutory processes and that lands necessary for the construction and or implementation of agreements / accommodation works will be available to the Contractor.

It is necessary that accommodation work agreements, which are to be carried out on lands retained by stakeholders, be made subject to the lands being made available to the Contractor for construction and or implementation. This should be done for the avoidance of dispute with stakeholders and the avoidance of potential claims from the Contractor.

Land agreements and or accommodation works will take cognisance of the approved Schedule of Environmental Commitments and development approval conditions, if any. This may entail an examination and, if necessary, revision of land agreements and accommodation works to ensure that they accord with the approved Schedule of Environmental Commitments and development approval conditions and scope.



### **5.1.2.2 Earthworks**

The Project Manager will review the project earthworks design to ensure that it reflects amendments which arose during the statutory processes and that lands necessary for construction and or implementation of the Project will be available to the Contractor.

The implications of modifications, if any, will be assessed to ensure that they accord with the approved Schedule of Environmental Commitments and development approval conditions and scope.

The Project Manager will take cognisance of the geotechnical certification requirements of *DN-ERW-03083 Managing Geotechnical Risk (to be published)* when preparing the construction / implementation documentation.

### **5.1.2.3 Structures**

#### **5.1.2.3.1 Iarnród Éireann Consent for Railway Structures**

Acceptance of the detailed design of railway structures may be sought during Phase 5 or Phase 6. The structural design of railway structures will be developed taking account of any comments or conditions imposed by Iarnród Éireann as part of the Initial Acceptance process. Detailed proposals will be submitted to Iarnród Éireann in accordance with *Iarnród Éireann Technical Guidance Document CCE-TMS-310 Guidance on Third Party Works*. The Project Manager will liaise with appropriate Iarnród Éireann and Commission for Railway Regulation personnel and will refer any agreed design submissions for structures to Iarnród Éireann and TII as required

Following receipt of the Acceptance of Detailed Design from Iarnród Éireann and the Commission for Railway Regulation the design, as accepted, may be included in the construction / implementation documentation as a contract requirement. Where appropriate, such as in design & build contracts, the tender documents will include arrangements to novate the design for railway structures to the successful tenderer in order that design responsibility for these structures is transferred to the Contractor. It will be necessary to clearly state in the construction / implementation documentation that should the Contractor wish to alter or amend the design for railway structures, as accepted, responsibility for seeking revised acceptance for such proposals rests solely with the Contractor.

#### **5.1.2.3.2 TII Approval of Structures**

Structures design reports created during *Phase 3* in accordance with *DN-STR-03001 Technical Acceptance of Road Structures on Motorways and Other National Roads* will be reviewed and updated as necessary taking cognisance of the review of development application documentation. Updated design reports will be issued to TII.

#### **5.1.2.3.3 Office of Public Works (OPW)**

The Project Manager will review consent applications made to the OPW for the creation and modification of watercourses, embankments, weirs, and bridges. Where necessary, updated consent applications will be issued to the OPW.

### **5.1.2.4 Departures and Relaxations**

The Project Manager will review departure and or relaxation applications issued to TII during earlier phases. The Project Manager will also seek approval for departures which may have materialised consequent to amendments to design standards or arising from the Statutory Processes, or 'value engineering'. It is vital that all departures from standard are considered and approved or rejected prior to the submission of tenders.

### **5.1.2.5 Permits & Licences**

Necessary permits and licences (with regard to environmental and archaeological considerations) will be obtained during Phase 3 Design and Environmental Evaluation and included in the environmental evaluation reporting. These will be reviewed during Phase 5 taking cognisance of the review of the development approval documentation.

### **5.1.2.6 Lands to be Made Available to the Contractor**

The Project Manager will confirm that the full extent of the Lands to be Made Available to the Contractor are sufficient for the purpose of constructing and or implementing the Project, as approved and or modified by the Competent Authority.

### **5.1.3 Environmental Operating Plan (EOP)**

An Environmental Operating Plan (EOP) will be prepared (or updated, if a draft EOP was included in the environmental evaluation documentation) by the Project Manager to ensure the implementation of the mitigating measures identified in the development approval documentation for the construction phase. The Plan will address potential impacts that may arise during the construction phase including issues such as construction noise, water runoff, dust, and waste arisings.

The plan will be reviewed, modified, and enhanced as necessary by the successful Contractor (including enabling works contractors) to detail proposed construction or implementation methodologies associated with their work methodologies.

### **5.1.4 Enabling Works Contracts**

It may be necessary or desirable to undertake enabling works contracts to de-risk the Main Contract

The Project Manager will allow adequate time in the Project Programme for the procurement and delivery of Enabling Works Contracts. Consideration as to the implications of enabling works contracts upon one another and the main Contract will be considered.

It will be necessary to obtain approval from TII to proceed with the tender and award of all Enabling Works Contracts.

The different types of Enabling Works Contracts may include, but is not limited to, the following:

- Service diversions / fencing / hedge clearing;
- Environmental; including the management of noxious weeds and non-native invasive alien plant species;
- Archaeological Stage (i) to (iv) services as outlined within section 5.1.4.3;
- Topographical proof survey (including accuracy and tolerance requirements, particularly at road tie-ins, structures, and watercourses); and
- Additional ground investigations.

The Project Manager will take cognisance of time constraints and restrictions imposed by relevant legislation (environmental limitations such as restrictions on tree felling) when programming enabling works contracts.

The Project Manager will liaise with the Sponsoring Agency Management Group to determine whether enabling works contracts will be undertaken in tandem but shall ensure that enabling works contracts do not conflict with one another.

**Sections 5.1.4.1 to 5.4.4.5** outline the requirements for such Enabling Works Contracts. Where Enabling Works Contracts different from the above are required then the requirements will be determined by the Contracting Authority and the Project Manager.

#### **5.1.4.1 Fencing / Hedge Clearing / Service Diversions**

Where fencing and hedge clearing contracts are required, it will be necessary to serve a Notice of Entry on all lands.

Where service diversion contracts are required, the Project Manager should liaise with the TII Senior Engineering Inspector to determine whether the Notice of Entry should be served or whether some other means of access (e.g. wayleave) should be obtained.

An outline of items to be considered when preparing fencing, hedge clearing, and service diversion, enabling works contracts is contained in **Appendix A5.2**. The Project Manager will ensure that sufficient 'as-built' records are prepared for these contracts for inclusion in the main Contract tender documents.

#### **5.1.4.2 Environmental Enabling Works**

The Project Manager will examine the Schedule of Environmental Commitments together with any additional environmental mitigation to determine whether environmental enabling works are required (e.g. badger, bat exclusions etc.).

Environmental enabling works may need to be sequenced with other enabling works contracts. (e.g. badger exclusions and badger proof fencing may need to be put in place in conjunction with the fencing contract, whereas bat exclusions may need to be carried out prior to the hedge clearing contract). The Project Manager will ensure that all enabling works contracts are sequenced to avoid one particular contract being carried out to the detriment of another.

Environmental enabling works contracts may include those to manage noxious weeds and non-native invasive alien plant species. This may include pre-construction survey contracts or treatment contracts. Every effort should be made during the earlier phases to identify noxious weeds and non-native invasive alien plant species as late identification may lead to significant additional costs to the Project.

#### **5.1.4.3 Archaeological Services**

Archaeological enabling works contracts may be required as part of the Schedule of Environmental Commitments or may, in any event, be required in advance of the main Contract. All archaeological works will be carried out in accordance with the *Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland* and the approved Schedule of Environmental Commitments.

The Project Manager in conjunction with the Project Archaeologist shall apply for Ministerial Directions (or Section 26 licences for Projects taken through the Part 8 Process) for all archaeological aspects of the project.

An outline of items to be considered in the preparation of Archaeological enabling works contracts is contained in **Appendix A5.3**. The following stages will be outlined within the form of tender and schedule for Archaeological enabling works contracts:

Stage (i) Test Excavations and Surveys Services Requirements

Stage (ii) Pre-Excavation Services Requirements

Stage (iii) Excavation & Post-Excavation Assessment Services Requirements

#### Stage (iv) Post-Excavation & Dissemination Services

Stages (i), (ii) and (iii) above are recommended to be carried out in Phase 5 to minimise the impact on the main Contract. In the event that a National Monument is uncovered during the Archaeological enabling works contracts, the Project Manager, in conjunction with the Project Archaeologist and via liaison with appropriate authorities, will determine its preservation requirements in accordance with statutory and regulatory requirements.

#### **5.1.4.4 Topographical Proof Survey**

Prior to the commencement of the main Contract, it may be necessary to verify existing topographical surveys which were used to design the Project and determine the land acquisition boundary. An outline of items to be considered in the preparation of topographical proof surveys is contained in **Appendix A5.4**.

#### **5.1.4.5 Additional Ground Investigation Contract**

The Project manager will determine whether it is necessary to complete additional ground investigation works to supplement works, if any, undertaken during Phase 3. Additional works, if any, will target vulnerable areas (e.g. soft ground, peat, karst etc.) identified as part of earlier contracts.

#### **5.1.5 Cost, Risk, and Value Management Procedures**

The Project Manager will review, update, or proceed with the following processes, in accordance with the *TII CMM*:

- Cost Management Strategy including update to Target Cost (TC) and Total Scheme Budget (TSB) and Pre-Tender Cost Estimate. In the event that the pre-tender cost estimates, and/or risk allowances, have changed from those prepared at the end of Phase 4, new Target Cost and Total Scheme Budget figures shall be prepared by the Project Manager in conjunction with TII.
- Risk Management Strategy including mitigation plans, Key Risks Schedule; Qualitative Risk Assessment; Quantitative Risk Assessment; and Risk Management Meetings.
- Value Management Strategy including implementation status, Value Decisions Tracking Register; and Value Management Meetings.

All Cost, Risk, and Value management processes and deliverables will be updated as Phase 5 progresses and applied to Project development. Cost, Risk, and Value meetings will be held during Phase 5 as appropriate.

The Project Manager will detail assumptions utilised in determining estimates, any Project risks identified, any value opportunities identified, and the strategies adopted for dealing with same.

The outputs / conclusions / recommendations from designated risk and value meetings should be presented in report format to the Steering Group for review as cost, risk, and value matters will be discussed at each meeting. These reports will set out how outputs / conclusions / recommendations from the meetings will be realised.

#### **5.1.6 Revised & Updated TII PAG Deliverables**

In the event of any changes to the Total Scheme Budget, any changes to the project programme, or changes to Project scope the Project Manager will determine the requirement to update TII PAG Deliverables. It will be necessary in any event to prepare a Final Business Case in accordance with *PAG Unit: 8.0 – Business Case*.

The Final Business Case, together with any other revised and updated TII PAG Deliverables. The Project Manager will submit the FBC to TII for audit irrespective whether or not TII are the Sanctioning Authority. Following receipt and incorporation of comments (if any) from TII, the Sponsoring Agency will formally submit the DBC to the Sanctioning Authority for approval.

### **5.1.7 Appointment of Technical Advisors**

Where necessary, it may be necessary to commission Technical Advisors to aid Project delivery.

The Project Manager will determine the nature and scope of the services to be procured which may or may not include provision of the Contracting Authority Site Supervisory Team. The Project Manager will document the scope within a Technical Advisors Procurement Brief.

Technical Advisors may be appointed for Phases 5 to 7 of the TII PMG or separate appointments may be made for Phase 5 and Phases 6 to 7. The Project Manager will obtain Steering Group approval to proceed with a tender to commission Technical Advisors for the Project. The Project Manager will prepare the necessary tender documents and determine appropriate quantitative and qualitative suitability criteria. Suitability criteria will take account of the complexity, nature, scope, and other relevant and appropriate Project specific criteria.

The Project Manager will be responsible for arranging the evaluation of tender returns by an appropriately qualified and experienced assessment board. Once the Tender Assessment Process is complete, a recommendation may be made to TII to accept one of the tenders received. As part of the Tender Award Recommendation (TAR), it will be necessary to prepare a Tender Report, which will summarise the Tender Assessment Process and formally recommend the Award of the Contract.

The Project Manager will submit the completed Tender Report to TII for approval with a recommendation to appoint a Tenderer. The Tender Report will be accompanied by a Tender Award Recommendation Sheet (TARS), duly completed by the Sponsoring Agency. Tender Reports prepared by the Sponsoring Agency shall comply with obligations and requirements deriving from applicable procurement legislation (for example, *S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016 &c.*).

### **5.1.8 Construction / Implementation Documentation Preparation**

The Project Manager will take cognisance of the Definitive Procurement Strategy when preparing the construction / implementation documentation. Model Forms for Employer Designed, Design and Build, and Public Private Partnership contracts are available upon request from the TII Senior Engineering Inspector.

#### **5.1.8.1 Tender Documents**

##### **5.1.8.1.1 Employer Designed - Traditional Contract**

In the case of Employer Designed projects, the Tender documents will be compiled by the Project Manager in accordance with TII and CWMF requirements, unless agreed otherwise with TII, and will comprise:

- Suitability Assessment Questionnaire (generally two-stage process).
- Instructions to Tenderers.
- Volume A Works Requirements.
- Part 1: Introduction and Interpretation.
- Part 2: Definitions.
- Part 3: General Requirements.

- Part 4: Particular Requirements.
- Part 5: The Specification (Including appendices to the specification).
- Part 6: Drawings.
- Part 7 Public Works Contracts Model Forms.
- Volume B Form of Tender & Schedules to Conditions of Contract.
- Volume C Bill of Quantities.
- Relevant Background Information.

An outline of items to be included as Relevant Background Information is contained in **Appendix A5.5**.

#### **5.1.8.1.2 Design and Build Contract**

In the case of Design Build Projects the Tender Documents will be compiled by the Project Manager in accordance with TII and *CWMF* requirements, unless agreed otherwise with TII, and will comprise:

- Suitability Assessment Questionnaire (two-stage process)
- Instructions to Tenderers;
- Volume A Works Requirements;
- Part 1: Introduction and Interpretation;
- Part 2: Definitions;
- Part 3: General Requirements;
- Part 4: Particular Requirements;
- Part 5: The Specification (Including appendices to the specification);
- Part 6: Drawings;
- Part 7 Public Works Contracts Model Forms;
- Volume B Form of Tender & Schedules to Conditions of Contract;
- Volume C Pricing Document;
- Volume D Novated Design Documents (e.g. railway structures, if required); and
- Relevant Background Information.

An outline of items to be included as Relevant Background Information is contained in **Appendix A5.5**.

#### **5.1.8.2 Tender Drawings**

The list of drawings included in the Contract should be included as an Appendix to the specification. An outline of drawings to be included in the Contract for a typical major road project is contained in **Appendix A5.6**.

Reference should be made to the TII Notes for Guidance on the Specification for Road Works (Manual of Contract Documents for Road Works) when compiling the list of drawings included in the Contract.

#### **5.1.8.3 Road Safety Audit Stage 2**

A Road Safety Audit Stage 2, in accordance with *GE-STY-01024 Road Safety Audit*, will be carried out on the Project and will be completed and closed out before the tender documentation is finalised. Any changes resulting from the audit will be incorporated into the construction / implementation documentation.

#### **5.1.8.4 Due Diligence Check of Tender Documents**

Once the Project Manager has compiled the tender documentation, it will be necessary to have a due diligence check of the documentation undertaken by a third party. The third party may include external specialist technical advisors, NRO/PO offices, and or TII personnel. The Project Manager should facilitate and co-ordinate such checks. Any recommendations from the due diligence check shall be incorporated into the tender documentation, unless otherwise agreed by the Steering Group.

#### **5.1.8.5 Health and Safety Plan**

The PSDP will prepare a Preliminary Health & Safety Plan for the Project in accordance with the relevant legislative requirements.

The Contractor will be appointed as Project Supervisor for both the Construction Stage and the Design Process (PSCS and PSDP).

#### **5.1.9 Approval to Proceed with Tender Process**

A formal request for approval to go to tender will be issued to TII along with confirmation from the Project Manager that the documentation has been appropriately reviewed and checked. In this regard, the Project Manager will ensure that extensive due diligence checking, such as cross referencing of requirements, of the construction / implementation documentation has been carried out. This request will be accompanied by an updated Detailed Business Case.

The Project Manager will not proceed with the Tender Process until TII approval to do so has been received.

#### **5.1.10 Tender Process**

The following sections detail features which may be applicable to employer designed and design build procurement.

The tender process will vary depending of the procurement strategy as determined and detailed within the Definitive Procurement Strategy.

In undertaking the procurement of works contracts the Project Manager will take cognisance of 'Green Public Procurement' requirements including, but not limited to, the inclusion of clear and verifiable environmental criteria for products and services to be provided as part of the works contract. Further the Project Manager shall take cognisance of whole life cost implications, and associated maintenance and replacement regimes, when procuring works contracts.

##### **5.1.10.1 Prior Information Notice (PIN) / Contract Notices in the OJEU**

PIN and Contract Notices may be posted on the Official Journal of the European Union (OJEU) or the Office of Government Procurement website ([www.etenders.gov.ie](http://www.etenders.gov.ie)) dependent on contract value. Applicable thresholds are available from the eTenders website. A PIN allows tenderers to prepare in advance for upcoming contracts. Sponsoring Agencies who publish a PIN with the required amount of information can avail of shortened minimum times for submitting expressions of interest of tenders. The Project Manager will determine whether a PIN and Contract Notices should be published.

Guidance on the publication of these notices including Common Procurement Vocabulary (CPV) Codes, EU Thresholds, and OJEU Standard Forms is provided on the eTenders website (<http://www.etenders.gov.ie/>).

A PIN may also be used to instigate a Technical Dialogue / Market Consultation process if this is considered necessary by the Project Manager.

### **5.1.10.2 Pre-Qualification of Tenderers (two stage process)**

The tender process will include a pre-qualification stage. This stage will assess tenderers on pass/fail criteria and / or on a qualitative basis. The Project Manager will prepare the necessary documentation and determine appropriate criteria. Suitability criteria will take account of the complexity, nature, scope, and other relevant and appropriate Project specific criteria.

In advance of the evaluation of qualitative criteria an Evaluation Procedures Document will be prepared by the Project Manager in conjunction with the Sponsoring Agency Management Group. This Evaluation Procedures Document will be utilised by the appropriately qualified and experienced assessment board so as to ensure an equitable and objective assessment is undertaken.

The Project Manager will be responsible for arranging the evaluation of prequalification returns by the appropriately qualified and experienced assessment board. The role of the assessment board is to shortlist candidates (typically 3 to 5) to proceed to second stage of the Tender Process. The Project Manager will prepare a debriefing document for unsuccessful candidates. The assessment board will provide sufficient information to compile this debriefing document.

The candidates short-listed to proceed to the second stage will be furnished with the tender documentation. Where a two-stage process is not adopted, all interested parties will be furnished with the tender documentation.

### **5.1.10.3 Tender Queries/Tender Bulletins**

During the Tender Process, Tenderers may submit tender queries in relation to the works requirements and/or the contract. Replies to tender queries are generally issued to all Tenderers unless they are submitted as 'Commercial in Confidence'. The means for dealing with queries submitted as 'Commercial in Confidence' will be as described in the Instructions to Tenderers.

Any changes to the tender documentation, arising from Tender queries or from amendments made by the Contracting Authority, will be re-issued to all tenderers in the form of Tender Bulletins. The Project Manager will ensure that a comprehensive list of all Tender Bulletins is maintained.

The issuing of a Tender Bulletin should be accompanied by a statement outlining the aspects of the tender documentation that have been amended, revised, or deleted. Each tenderer should be requested to acknowledge receipt of a Tender Bulletin where e-procurement is not utilised.

### **5.1.10.4 Consultation and Facilitation Meetings**

As part of a Design Build tender process Consultation Meetings (typically 3) may be held during the Tender Process between tenderers and the Contracting Authority. These meetings provide Tenderers with an opportunity to discuss their developing design and obtain feedback thereon from the Project Manager.

There may also be a facilitation meeting held between the tenderers and service providers who are impacted by the Project (e.g. electricity, telecommunications, broadband, gas, water, and wastewater etc.).

Full details of these Consultation Meetings, including conditions for participation, will be set out in the Instructions to Tenderers.

A Design and Build tendering process may facilitate the development of 'Consolidated Outline Proposals' by tenderers. Such proposals will be discussed during the consultation meetings. The Project Manager will inform the TII Senior Engineering Inspector of such meetings such that the attendance of TII personnel, as required, can be arranged.



The Project Manager will be responsible for organising the consultation and facilitation meetings at appropriate stages during the Tender Process. These meetings will be treated as confidential and informal.

#### **5.1.10.4.1 Review of Consolidated Outline Proposals**

Where a design build Tender Process facilitates the development of 'Consolidated Outline Proposals' these proposals will be submitted within a defined period.

The requirements for 'Consolidated Outline Proposals' will be set out in the Instructions to Tenderers and may include Traffic Management, Temporary Works, and tie-ins (temporary and permanent) together with other proposals for meeting the works requirements.

The Project Manager will review these proposals taking cognisance of the requirements of the tender documentation and will refer any comments to Tenderers who may in turn incorporate them into their respective tender submissions. Notwithstanding any review undertaken by the Project Manager, Tenderers will be informed that it is their responsibility to ensure that their proposals accord with the requirements of the tender documentation. Tenderers shall be informed that non-conforming proposals are unacceptable and cannot be incorporated within the Project design or its delivery. Tenderers will be informed that any oversight on the behalf of the Project Manager, or related parties, with respect to non-conforming proposals does not indicate its acceptance or approval.

The Consolidated Outline Proposals will be accompanied by a Design Check Certificate, as necessary, and Stage 1 Road Safety Certificate, as necessary.

Proposals for Structures submitted as part of Consolidated Outline Proposals will be submitted to TII in accordance with *DN-STR-03001 Technical Acceptance of Road Structures on Motorways and Other National Roads*.

Innovative design solutions proposed by a Tenderer which may have an impact on future maintenance requirements will be referred to the Steering Group for review. As part of the tender evaluation the Project Manager will have cognisance of the whole life cost implications of such innovative design solutions.

Some Tenderers may wish to introduce a Departure from Standards and Specification. In such circumstances, it will be necessary to comply with the requirements of *GE-GEN-01005*. Tenderers should be informed that non-approved departures, innovative design solutions, &c. carried forward to the Construction Phase will be entirely at the tenderer's risk.

### **5.1.11 Tender Assessment & Award**

Tenders should be submitted in the prescribed format to the stated address of the Contracting Authority and/or in digital format via etenders on or before the closing date for receipt of tenders as set out in the Instructions to Tenderers. Tenders received after the closing date (and time) should be recorded but will not be opened or given further consideration in the tender assessment process.

The Contracting Authority may have specific procedures in place for the receipt and opening of tenders. The Project Manager will check in advance if such procedures are in place and will ensure that tenders are received and opened in accordance with the Contracting Authority's requirements.

#### **5.1.11.1 Assessment of Non-Compliant, Conforming & Variant Tenders**

The Project Manager will ensure that all Tenders are examined for compliance with the Tender requirements.

The Project Manager will determine whether there are non-compliant Tenders and will determine how to proceed with the assessment of that Tender having regard to the Instructions to Tenderers and the EU Remedies Directives.

#### **5.1.11.2 Independent Arithmetical Check**

It may be necessary to undertake an independent arithmetical check of the Pricing Document (Volume C of the Tender Documents) submitted by each Tenderer. The check will be conducted on both the Tender Sum and the Comparative Cost of Tender.

#### **5.1.11.3 Post-Tender Clarification Meeting / Queries**

It may be necessary to hold a Post-Tender Clarification Meeting between the Contracting Authority and one or more of the Tenderers to clarify some aspects of their respective Tender Submissions and/or the conceptual design proposals.

The minutes of the Post-Tender Meeting will be compiled by the Project Manager and referred to the Tenderer who will in turn, confirm acceptance of the minutes in writing.

It may be beneficial to the Tender Clarification process if some clarifications are sought in advance of the Post-Tender Meeting by the Project Manager and similarly responded to by the Tenderer.

The Minutes of the post-tender Clarification Meeting, together with the written confirmation of acceptance of these minutes will form part of the Contract if the Tenderer is successful.

#### **5.1.11.4 Confirmation of Insurances, Resources, Pension & Pay**

As part of the Tender Submission, Tenderers will be required to submit confirmation and or accede to the following:

- Provide confirmation that the required levels of Professional Indemnity, Employer's Liability, and Public Liability Insurances are in place;
- If requested, provide a full list of the plant and resources the Tenderer proposes to use to execute the Works as a demonstration that appropriate plant and resources are available;
- Provide confirmation that the Tenderer operates an approved Pension & Sick Pay project and accede to audit on behalf of TII to ensure same; and
- Provide confirmation that the Tenderer complies with industry requirements on rates of pay and accede to audit on behalf of TII to ensure same.

Tenderers may have submitted some or all of this information during the prequalification process, if applicable. However, if the validity period of certificates has expired in the intervening period, the Project Manager should seek evidence of renewal.

The Project Manager should also ensure that the Contractor will indemnify the Contracting Authority against liability for damages arising from works carried out by the Contractor outside of the land acquisition boundary.

#### **5.1.12 Impact on TII Cost Management Deliverables**

The Project Manager will update *TII CMM* deliverables such as the Target Cost and Total Scheme Budget, if necessary, following the determination of the most economically advantageous tender using the appropriate Tender Sum and any necessary adjustments to the risk register.

### **5.1.13 Updated TII PAG Deliverables**

TII PAG deliverables will be updated (CBA, PABS) as required taking cognisance of the Target Cost and Total Scheme Budget derived from the tender returns.

### **5.1.14 Detailed/Final Business Case**

The Project Manager shall update the Detailed / Final Business Case taking cognisance of the Target Cost and Total Scheme Budget derived from the tender returns. The Project Manager will submit the DBC / FBC to TII for audit irrespective whether or not TII are the Sanctioning Authority. Following receipt and incorporation of comments (if any) from TII, the Sponsoring Agency will formally submit the DBC / FBC to the Sanctioning Authority for approval to proceed to award of the contract.

### **5.1.15 Sanctioning Authority Approval Point**

A formal Sanctioning Authority Approval Point is required in line with the *Project Management Guidelines* as the decision to proceed to contract award entails the commitment of expenditure.

The Sponsoring Agency will not proceed to contract award without having received Sanctioning Authority approval to do so.

In cases where TII are the Sanctioning Authority for this Sanctioning Authority Approval Point, the Sponsoring Agency may submit the request for Sanctioning Authority approval and the Gate Review Statement to TII at the same time. Under these circumstances the request for Sanctioning Authority approval should be submitted by way of a separate covering letter from the Gate Review Statement.

### **5.1.16 Tender Report and Contract Award**

Once the Tender Assessment Process is complete and the necessary TII PAG deliverables have been updated, a recommendation may be made to TII to accept one of the tenders received. As part of the Tender Award Recommendation (TAR), it will be necessary to prepare a Tender Report, which will summarise the Tender Assessment Process and formally recommend the Award of the Contract. A template outlining the information to be included in the Tender Report is included in **Appendix A5.7**. Tender Reports prepared by the Contracting Authority shall comply with obligations and requirements deriving from applicable procurement legislation (for example, S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016 &c.).

The Project Manager will submit the completed Tender Report to TII for approval with a recommendation to appoint a Tenderer. The Tender Report will be accompanied by a Tender Award Recommendation Sheet, duly completed by the Sponsoring Agency. A template for the Tender Award Recommendation Sheet (TARS) is contained in **Appendix A5.8**.

In cases where TII are the Sanctioning Authority for this Sanctioning Authority Approval Point, the Tender Report and the Tender Award Recommendation Sheet shall accompany the request for Sanctioning Authority approval.

In cases where TII are not the Sanctioning Authority for this Sanctioning Authority Approval Point, the Tender Report and the Tender Award Recommendation Sheet shall be submitted along with the confirmation of Sanctioning Authority approval to award the contract.

#### **5.1.16.1 Letter to Successful/Unsuccessful Tenderers**

Following receipt of the necessary approvals to proceed with the Award of the Contract, the successful Tenderer will be issued with a letter in the prescribed form. This Letter is issued subject to receipt of the required documentation as outlined in the Instructions to Tenderers and during, if applicable, post tender clarification meetings. The required documentation should also be outlined in the letter to the successful tenderer.

All unsuccessful tenderers will be notified, in the prescribed form, of the decision to Award the Contract to the most economically advantageous tender (MEAT). Letters to unsuccessful tenderers will provide information as to why their tender was not deemed to be the most economically advantageous.

#### **5.1.16.2 Letter of Acceptance**

A Letter of Acceptance, in the prescribed form may be issued to the successful Tenderer not earlier than 14 days after the notification to unsuccessful Tenderers was issued.

Once the Letter of Acceptance is issued, a Contract Award Notice will be published in the OJEU or the Office of Government Procurement website ([www.etenders.gov.ie](http://www.etenders.gov.ie)) dependent on contract value within the period specified in the Instructions to Tenderers.

#### **5.1.17 Health & Safety**

In addition to the preparation of documentation for the Contract for the Execution of the Works, separate collateral documentation will be required to fulfil Health & Safety Legislative requirements.

#### **5.1.18 Appointment of Contracting Authority's Site Supervisory Team**

The Project Manager will appoint a Contracting Authority's Representative together with a Contracting Authority Site Supervisory Team to monitor the Works on behalf of the Contracting Authority. The composition of this team will take cognisance of the Project particulars and where necessary development approval documentation. The duties of the Contracting Authority's Representative will be as stated in the Contract. A summary of the duties of the Site Supervisory Staff is contained in **Appendix A5.9**.

#### **5.1.19 Confirmation of the Land Acquisition Boundary**

The Project Manager will ensure, prior to the award of the contract that all lands identified as 'Lands Made Available' for the purpose of constructing the Works are available for use by the Contractor. This is particularly relevant to projects where a fencing / hedge clearing enabling works contract has not been carried out in advance of the main Contract.

The Project Manager will ensure that a Notice of Entry is served on all lands to be compulsory acquired a minimum of 14 days prior to the construction commencement date to allow the Contracting Authority and the Contractor to enter into and take possession of the lands.

The Project Liaison Officer (PLO) shall make contact with landowners affected by the Project as early as possible prior to the commencement of the Works to ensure that the Contracting Authority will not cause undue disruption in exercising its powers of acquisition. Sufficient time shall be given to facilitate the removal of livestock and crops from lands and, in particular, to allow for dwelling houses and other buildings to be vacated.

#### **5.1.20 Contract Signing & Publicity Requirements**

Prior to the commencement of the Works (at the end of this Phase or the beginning of Phase 6), a formal Contract signing may take place between the Contractor and the Contracting Authority. The Project Manager will liaise with the Steering Group who will advise on whether representatives from Government, the Department of Transport, Tourism and Sport, or TII may attend the Contract signing. The Steering Group will also advise on other publicity requirements including press releases.

#### **5.1.21 Project Gate 5**

The Project Manager will ensure that deliverables required for Phase 5 are finalised and issued to TII at the end of Phase 5.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of Project maturity using the template in **Appendix A5.11**. This assurance will be endorsed by the Sponsoring Agency Director of Services. The Sponsoring Agency may proceed to Phase 6 when TII accept the Gate Review Statement and issue consent to proceed to Phase 6.

### 5.1.22 Lessons Learned Register

At the end of Phase 5 it will be necessary to review and update the Lessons Learned Register.

## 5.2 Deliverables

The deliverables for Phase 5 are listed below:

Source	Deliverables
PMG	Tender Assessment Reports (TARs) and Tender, Tender Award Recommendation Sheets (TARSs) for Enabling Works Contracts, as required.
CMM	Where necessary, Updated Target Cost 2 and Total Scheme Budget.
PAG	Where necessary, updated Detailed Business Case.
PMG	Tender Assessment Report (TAR), Tender Award Recommendation Sheet (TARS) and Chief Executive's Order for Main Contract.
CMM	Target Cost 3 and Total Scheme Budget.
PAG	Updated Detailed Business Case.
PMG	Contract Documents (Main Construction Contract).
PMG	Updated Project Execution Plan.
PMG	Phase 5 Gate Review Statement.

## 6 Phase 6 Construction and Implementation

The purpose of Phase 6 is the administration and execution of the Main Contract in accordance with the design, specification, relevant standards, and legislation.

The processes and deliverables required to complete Phase 6 are outlined in **Figure 11**.

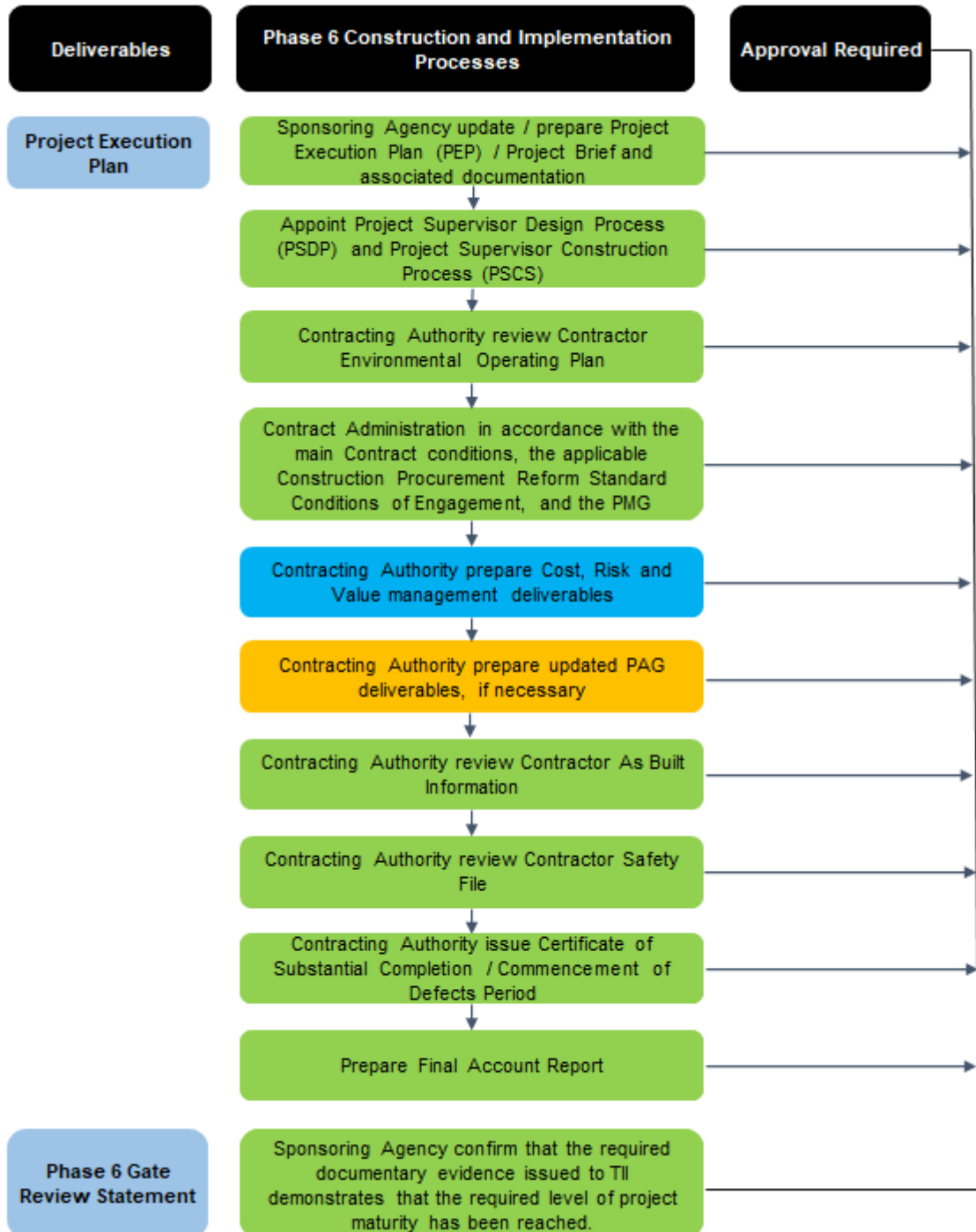


Figure 11 Workflow Diagram Phase 6

During Phase 6 the construction or implementation the main contract and, if applicable, the completion of enabling works contracts shall be achieved.

During Phase 6 cost, risk, and value management are to the fore. It is essential that stringent controls and processes are in place to monitor Project scope. Phase 6 will conclude when the main Contract has reached substantial completion and when the Contracting Authority's Representative has issued a Certificate of Substantial Completion to the Contractor in accordance with the Contract. Many of the key deliverables required for Phase 6, in particular the Final Statement of Account, may not be completed by the Date of Substantial Completion and therefore will carry forward to Phase 7. In addition, any monies due to the Contractor from the Final Statement of Account may also carry forward to Phase 7 (including the balance of retention monies).

## **6.1 Processes**

### **6.1.1 Project Brief and Project Execution Plan**

During this phase, the Project Brief and the PEP shall be updated by the Project Manager, as required, to take cognisance of Construction and Implementation.

### **6.1.2 Health and Safety**

#### **6.1.2.1 Appointment of PSCS and PSDP**

The Contractor will be appointed as Project Supervisor for both the Construction Stage and the Design Process (PSCS & PSDP), as appropriate, in accordance with current health and safety legislation.

#### **6.1.2.2 Transfer of Safety File to Contractor**

The Project Manager will ensure that the Safety File, prepared for the Project in Phase 0 and developed through to Phase 5, is transferred to the Contractor for the duration of the Works.

#### **6.1.2.3 Notification to HSA of Works Commencement**

The PSCS will notify the Health & Safety Authority of the particulars of the proposed works prior to commencement.

### **6.1.3 Contract Administration**

Contract Administration for the main Contract will be undertaken in accordance with the main Contract conditions, the applicable Construction Procurement Reform Standard Conditions of Engagement, and this manual.

The Project Manager will ensure, prior to commencement of the main Contract construction and or implementation, that a Contracting Authority's Representative has been appointed and that their duties and responsibilities are clearly outlined and scoped. Overall responsibility for the delivery of the Project will remain with the Project Manager. The Contracting Authority Representative's duties are outlined within **Appendix A6.1**. The Project Manager represents the Contracting Authority (Sponsoring Agency) and may, for the purposes of the Contract, fulfil a number of the functions and duties of the Contracting Authority. In such circumstances, it is important that these arrangements are clearly communicated to the Contractor and to the Contracting Authority's Representative. In any instance, the duties and responsibilities of the Project Manager and Contracting Authority's Representative will be set out within the PEP. Consequently, at the commencement of Phase 6 the Project Manager will review and update the PEP as necessary.

#### **6.1.4 Managing Geotechnical Risk**

When finalising and completing the earthworks design and construction the Contractor will, per *DN-ERW-03083 Managing Geotechnical Risk (to be published)*, prepare a Geotechnical Feedback Report. It is necessary to prepare this during the construction and or implementation period to provide an accurate evaluation of earthworks operations. Additionally, the Contractor will be required to complete certification requirements per *DN-ERW-03083*.

#### **6.1.5 Environmental Operating Plan**

An Environmental Operating Plan will be prepared during Phase 5 by the Project Manager. During Phase 6 the Contractor will be required to augment the Environmental Operating Plan (EOP) to reflect the implications of their proposed construction methodologies and programme. The preparation of the EOP will be closely aligned with the requirements of the Schedule of Environmental Commitments and any development approval conditions. As noted, the Contractor will be required to comply with requirements for waste arising from site operations in accordance with *GE-ENV-01101 The Management of Waste from National Road Construction Projects* and relevant EPA guidance. Refer to *TII Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan* for further information. This Plan will be reviewed by the Contracting Authority's Representative. The EOP will be approved prior to commencement of construction and or implementation. The Contractor shall maintain the EOP for the duration of the construction and or implementation period. On substantial completion the Contractor shall issue the final EOP to the Contracting Authority.

#### **6.1.6 Construction Stage Meetings**

Steering Group and Sponsoring Agency Management Group meetings shall be held at regular intervals, as outlined within *PE-PMG-02041 Project Management Guidelines*, during Phase 6 to discuss progress and expenditure on the main Contract.

Site Progress Meetings will be held, typically, monthly between the Contracting Authority and their team and the Contractor to address construction issues and progress.

A Dispute Management Project Board will be formed as required in *Project Management Guidelines (PE-PMG-02041)* and will meet on a regular basis.

#### **6.1.7 Monthly Reports / Financial Reports / Payments**

The Contracting Authority's Representative will prepare monthly progress reports and financial reports relating to the main Contract in accordance with the requirements of the Contract and this manual. The monthly progress reports should include detail on information provided to the Contractor by the Contracting Authority's Representative and information generated by the Contracting Authority's Representative. **Appendix A6.2** gives a typical structure and contents listing for a Monthly Progress Report. **Appendix A6.3** gives a typical structure and contents for a Financial Report Summary Sheet. These reports will be submitted to the Project Manager for review. The Project Manager will be responsible for submitting monthly progress reports and financial reports relating to the Contract to TII.

#### **6.1.8 Cost, Risk, and Value Management Procedures**

Following on from the Cost, Risk, and Value Management works undertaken at Phase 5, the Contracting Authority's Representative will reassess the value engineering opportunities and Project risks in accordance with the *TII CMM* during this phase.

The Contracting Authority's Representative will review the Value Report and Value Decision Tracking Register and prepare a Value Engineering Proposals Register in accordance with the requirements of the *TII Cost Management Manual*.



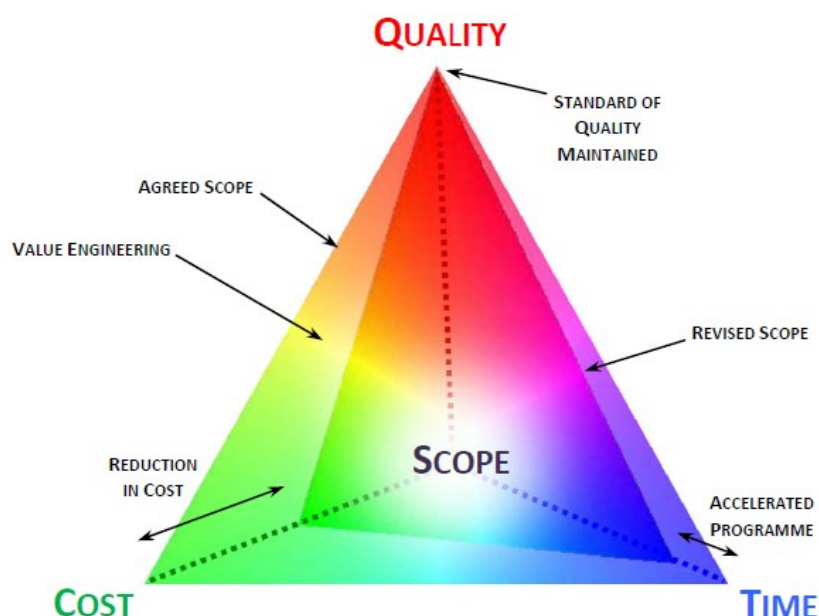
**Appendix A6.4** gives a typical structure and contents for a Value Engineering Proposals Register. This register will also detail Contractor value engineering proposals. The Value Engineering Proposals Register will be discussed during monitoring meetings. The Contracting Authority's Representative shall incorporate the construction stage Value Engineering Proposals Register into the overall Project Value Decisions Tracking Register.

The Contractor may, in accordance with the Contract, submit value engineering proposals on either the design or construction of the Project which may:

- i. Reduce the cost of the Contract;
- ii. Accelerate the time for completion of the Contract; or
- iii. Improve the quality of the end product.

It is imperative that value engineering proposals do not adversely impact on the Scope of the Project (time, cost, or quality). Similarly, value engineering proposals must not lead to an increase in Whole Life Cost or an additional maintenance liability.

The Contractor should illustrate to the Contracting Authority that the changes / value engineering proposals are fully in compliance with development approval conditions.



**Figure 12 Value Engineering**

Risk monitoring and management will also be discussed during construction stage meetings. The Contracting Authority's Representative will review and update the Risk Report and Quantified Risk Register to take account of any changes as outlined above and will submit this to the Project Manager. This report will detail how risks will be managed during construction and or implementation. The Contracting Authority's Representative will prepare and maintain a Construction Contract Risk Register in accordance with the requirements of the *TII Cost Management Manual*. The following key points should be considered when identifying risks for inclusion within the Construction Contract Risk Register:

- Risks shall only be included on the basis that there is a possibility that at a later date, they may constitute compensation events, delay events, or lead to other adjustments to the contract sum allowable under the Contract.

- Claims issues recorded in the Claims Register are automatically transferred into the Construction Contract Risk Register by the Contracting Authority's Representative where they consider that there is a risk, under the Contract, associated with the Claim.
- The settlement of compensation events should include for the full effects of the compensation event. However, the Contracting Authority's Representative may consider that there is a residual risk associated with a Compensation Event and may deem it appropriate to include an item for the residual risk within the Construction Contract Risk Register.
- The Construction Contract Risk Register should not include for compensation events that have occurred where their full impact has been agreed as these should have been transferred to the Compensation Events Register. The Construction Contract Risk Register only includes for issues which might occur and have the potential to result in either delay to the works or additional cost for which the Contracting Authority may have a liability under the Contract.

The Construction Contract Risk Register shall be updated monthly by the Contracting Authority's Representative until the Final Account is agreed, to take account of the progress of Works and changes to the Claims and Compensation Events Register. Typical issues which should be considered include:

- Tracking and reviewing of previously recommended response strategies and their effectiveness.
- Confirmation that current risk response strategy for each risk is still the best that can be adopted.
- Are response strategies allocated to those best placed to action them?
- Any new risks which should be included in the register.
- Adequacy and or appropriateness of the current risk provision for each risk.

The Project Manager should ensure that there is a periodic review, during progress meetings, of the risk management process. This review should include a review of the effectiveness of the risk management strategy and the specific risk response strategies contained in the register, current assessment of potential impact, and any management actions required on any of the risks.

Results of periodic analysis of current risks contained in the Construction Contract Risk Register or any other analysis as required by the Contracting Authority may lead to the requirement to adjust the construction contract contingency.

The Project Manager will be responsible for incorporating the risks identified in the Construction Contract Risk Register into the Project Risk Register developed during previous phases and for ensuring that risk contingencies are managed as the Project progresses, in accordance with the *TII CMM*.

### **6.1.9 Change Orders**

Any changes to the Main Construction Contract involving a change to the scope of works and a change to the contract value require approval from TII in accordance with the relevant procedures and thresholds currently in force. In some instances, the Contracting Authority's Representative may approve Change Orders to a threshold amount specified in the Contract. The TII Senior Engineering Inspector will provide guidance as to the relevant procedures and thresholds and these shall be recorded in the Change Management Plans / Strategies (Cost, Risk, Value) included with the PEP.

The Project Manager, in conjunction with the Contracting Authority's Representative, will prepare a justification Report for each Change Order in accordance with the requirements of the *TII Cost Management Manual*.

The Contracting Authority's Representative shall maintain an up to date Change Orders in accordance with the requirements of the *TII Cost Management Manual*. This register shall indicate instructions that the Contracting Authority's Representative considers to be Change Orders and shall indicate the purpose and reason for the issuing of the Change Order. Where necessary, the Contracting Authority's Representative shall maintain a separate record of directions given to the Contractor to comply with the Contract.

**Note:** The contents of the Change Order Register shall be incorporated into the Compensation Events Register. Alternatively, one register can be maintained recording all Compensation events, Claims and Change Orders, once Change Orders are labelled as such.

### **6.1.10 Claims/Compensation & Delay Events**

The Contracting Authority's Representative will receive, acknowledge, and process claims for compensation and delay events and other contractual claims and will maintain a Claims / Compensation Register in accordance with the Contract and in accordance with the requirements of the *TII Cost Management Manual*.

The Contracting Authority's Representative shall maintain, until the settlement of the Final Account, a Claims register detailing all claims notified by the Contractor. The structure of the register should be such that it is possible to use the register to check the Contractor's and Contracting Authority's Representative compliance with contractual requirements.

The Claims Register should clearly identify;

- All Claims made by the Contractor notifying the Contracting Authority's Representative of an intention to seek additional payment or extension of time or other entitlement under or in connection with the Contract.
- Compliance by the Contractor and the Contracting Authority's Representative with the requirements set out in the contract.
- Any reciprocal cooperation with the Contractor offered by the Contracting Authority / Contracting Authority's Representative in relation to the Contractor's efforts to minimise delay and compensation events and their effects.
- Details of the Contracting Authority's determination.
- The status and extent of resolution of each claim.
- The register should contain items that are defined as compensation and/or delay events by the contract including Change Orders.
- It should be possible to filter the register so as to be able to distinguish between Claim items and Compensation / Delay events.

The Contracting Authority's Representative should seek, as early as possible, to establish a structured formal forum for the discussion, valuation, and agreement of claims with the Contractor on a 'without prejudice' basis. This is consistent with the principles of cooperation which shall be set out in the Contract and the requirement for the Contractor to provide notices and relevant information within defined timescales and at set milestones. Such a forum should:

- Endeavour to reach a consensus as to whether or not there is an entitlement in accordance with the conditions of the Contract to additional payment and or an extension of time.

- Clarify the Contracting Authority's Representative requirements in relation to any additional information sought in relation to any claim notified by the Contractor.
- Clarify the timescales defined within the Contract for the submission of information and consideration of same by the Contracting Authority's Representative.
- Explore, where possible, aspects of the Contractor's detailed submission and seek and record agreements reached.

The Contracting Authority's Representative shall appraise the Contracting Authority of the intention to hold claims management meetings and the proposed dates for same and the Contracting Authority may choose to attend these meetings.

The Contracting Authority's Representative should manage Claims from the Contractor in strict accordance with the contractual provisions.

All contractual claims should be notified to the Contracting Authority through the client progress report with details of the Contracting Authority's Representative assessments and determinations being provided under separate cover when requested by the Contracting Authority.

**Note:** In exceptional circumstances and where possible, the Contracting Authority's Representative should contact the Contracting Authority to highlight potential claim item in advance of the receipt of a formal notification. It may be appropriate, subject to the potential scale and risk associated with the issue, to include provision for same within the Construction Contract Risk Register.

The Contracting Authority's Representative will notify the Project Manager of claims and delay events as and when they arise and will advise on the validity or otherwise of these claims and on the potential liability to the Contracting Authority.

The Project Manager will notify Steering Group if there is a claims liability which may impact on the scope of the Project (time, cost, quality) and if there is an impact on the Total Scheme Budget. The Steering Group will advise on how to deal with any changes to Project scope.

### 6.1.11 Relationship Between Contract Management Registers

The relationship between the Contract Management Registers is presented in **Figure 13**.

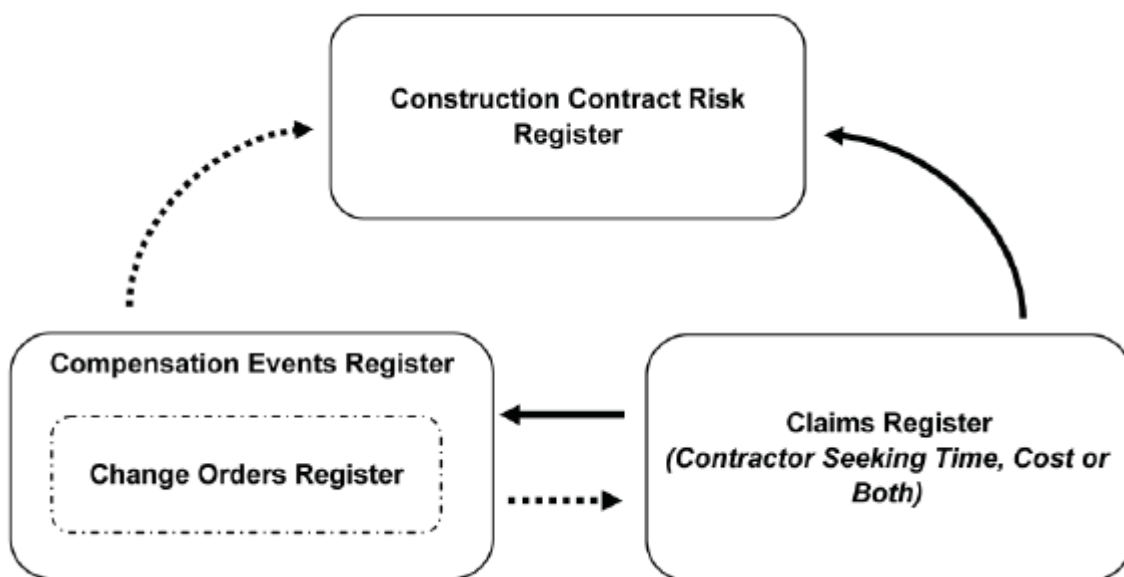


Figure 13

Relationship Between Contract Management Registers

### **6.1.12 Departures and Relaxations**

The Contracting Authority's Representative will monitor the Contractor's compliance with all design standards and will ensure that any non-compliance with TII Publications is regularised either by redesign or by means of approvals per the requirements of *GE-GEN-01005 Departures from Standards and Specification*. In this regard, under no circumstances will departures from standards and specification be retrospectively approved once the non-compliant design has been incorporated into the Works.

The number of applications for Departures from Standards and/or Specification will be kept to an absolute minimum during the construction stage as there may be a substantial risk to the Contract and/or the Total Scheme Budget if the departure application is refused.

### **6.1.13 Land & Property**

The Project Manager will transfer the pre-tender Land & Property Cost Estimate to the Land Acquisition Schedule, a template for which is contained in the *TII CMM*. As the Project progresses and land agreements are reached, the actual land acquisition costs should be recorded in the Land Acquisition Schedule to feed into the Target Cost and ultimately the Final Outturn Cost.

The Land & Property costs should include a breakdown of total compensation paid to each landowner, together with other costs such as interest, claimant, local authority fees, and land transfer fees.

The Project Manager will ensure that the Property Valuation Advisors provide the information required for inclusion in the Land Acquisition Schedule as and when land agreements are finalised.

#### **6.1.13.1 Contractor and Landowner Interaction**

The Project Liaison Officer (PLO) will ensure that the provisions of the Agreement in place between TII, Irish Farmers Association, and the relevant government department are implemented during construction, in particular with respect to the provision of reasonable access to retained lands during construction and to the implementation of agreed accommodation works.

If difficulties arise, the Contracting Authority's Representative should communicate the difficulties of affected landowners to the Contractor (only after discussing/agreeing with the PLO and Project Manager) and should endeavour to ensure that all reasonable landowner requirements are met without adversely impacting on the Project scope.

#### **6.1.13.2 Land Agreements and Accommodation Works**

The Project Manager will ensure that where land agreements are reached and where satisfactory evidence of title has been furnished and vacant possession confirmed, payments are provided subject to the availability of funding and in accordance with the requirements of any agreement between TII, Irish Farmers Association, and the relevant government department.

The Project Manager will ensure that the claimant's and the Local Authority's legal, valuation and other fees are discharged in accordance with current TII policy.

It may also be necessary to obtain the prior approval of TII where the compensation amounts in land agreements exceed certain prescribed thresholds. The Project Manager should liaise with the TII Senior Engineering Inspector to confirm the monetary threshold which requires prior TII approval.

Accommodation Works agreed prior to tender should be included as part of the Works requirements. However, it may not be possible to agree all accommodation works at that stage and in such circumstances, the Project Manager shall include in the Works requirements, the projected accommodation works which will be required for the landowners' retained lands.

Due to the limitations of the Contract, it may not be possible to agree accommodation works at Phase 6 over and above those agreed or projected at Phase 5. If additional accommodation works are being sought and if they are critical in terms of reaching agreement, alternative means of providing these accommodation works or of providing payment in lieu should be examined as they are likely to require a Change Order to the main Contract if not contained in the Works requirements.

### **6.1.13.3 Property Arbitration (if required)**

It may not be possible in all instances to reach agreement with affected landowners. The land acquisition processes allow for the determination of compensation by independent assessment in the first instance and subsequently by means of Alternative Dispute Resolution (ADR).

Due to implications for costs, the Project Manager will liaise with the TII Senior Engineering Inspector to confirm whether an 'Unconditional Offer' should be prepared by the Property Valuation Advisors and submitted to the Claimant and the Arbitrator.

Lands which are the subject of the Agreement in place between TII, Irish Farmers Association, and the relevant government department have recourse to independent assessment through the Chartered Institute of Arbitrators. This assessment is non-binding on either party but should be availed of prior to referring the case to arbitration through the High Court Reference Committee.

In both forms of independent assessment, but particularly in the case of High Court Arbitration, the Project Manager shall consult with the TII Senior Engineering Inspector regarding the necessity to obtain expert legal advice and the appropriate form of procurement for such expert legal advice.

### **6.1.14 'As-Built' Document Requirements**

The general requirements for the preparation and delivery of certain documentation, and other material, constituting the As-Built Records for all national road projects are detailed within *CC-CMG-04001 Preparation and Delivery Requirements for As-Built Records*. Further project requirements for 'As-Built' documents and drawings will be set out in the Works requirements.

The requirements for 'As-Built' drawings and documents for Structures are set out in *DN-STR-03001 Technical Acceptance of Road Structures on Motorways and other National Roads*.

The Contracting Authority's Representative will ensure that 'As-Built' documents are prepared by the Contractor in accordance with the Works requirements and handed over to the Contracting Authority upon completion of the Works. The Contracting Authority's Representative should ensure that the Contractor's Designer includes a copy of the 'As-Built' documents in the Safety File.

The Contracting Authority's Representative will also ensure that the following documents are handed over to the Contracting Authority at the completion of the main Contract:

- confirmation of implementation of the schedule of environmental commitments;
- confirmation of satisfactory closeout of all non-conformance records;
- copies of Road Safety Audit Stage 1, Stage 2, & Stage 3 Reports;
- the records collated regarding the preparation of the final account; and
- certificates and approval documentation from third parties (e.g. OPW).

### **6.1.15 Confirmation of implementation of schedule of Environmental Commitments**

The Contracting Authority's Representative will ensure that the Contractor has implemented all mitigation measures to the satisfaction of the Contracting Authority and/or relevant statutory bodies, where necessary.

The Contracting Authority's Representative should obtain verification and confirmation from the Contractor that all measures required within the Schedule of Environmental Commitments were implemented.

The Contracting Authority's Representative will ensure that a copy of the final Environmental Operating Plan, prepared in accordance with *TII Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan* is handed over to the Contracting Authority.

#### **6.1.15.1 Confirmation of Implementation of Development Approval Conditions**

The Contracting Authority's Representative will verify the implementation of development approval conditions, if any. The Contracting Authority's Representative should ensure that the Contractor has implemented all requirements to the satisfaction of the Contracting Authority and/or relevant statutory bodies, where necessary.

#### **6.1.16 Archaeology**

The Project Archaeologist will manage and supervise, as necessary, archaeological works required during the main Contract. This may include archaeological monitoring of the topsoil stripping along the Project, while exclusion zones may also be present on the site if archaeological resolution works have not been completed prior to the commencement of the main Contract.

The Project Archaeologist is responsible for consultation with the relevant Government Department. In any event the Project Manager in conjunction with the Project Archaeologist will ensure that any commitments made in the environmental evaluation documentation, or via ministerial direction, regarding the protection of the archaeological heritage are adhered to during the main Contract.

In the event of archaeological sites / features being uncovered during the main contract, the Project Archaeologist will determine, in conjunction with the Project Manager, the preferred means of preservation (i.e. preservation by record or preservation in situ) and appropriate protection measures in consultation with the appropriate bodies. Should the Minister determine that an archaeological site discovered during the works constitutes a National Monument, then this may require a separate EIAR to allow for the site to be fully excavated, or for the Project to be altered.

#### **6.1.17 Road Safety Audit Stage 3**

A Road Safety Audit Stage 3, in accordance with *GE-STY-01024 Road Safety Audit*, will be carried out on the Project (or part of the project) and completed and closed out, with any changes resulting from the audit incorporated into the construction before it opens to traffic or prior to construction traffic management measures being removed in the case of an on-line project.

#### **6.1.18 Official Road Opening**

The completion of construction is marked by an Official Road Opening Ceremony. This usually takes place immediately prior to the opening of the road to traffic although this may not be possible for all Projects.

The Project Manager will liaise with the TII Senior Engineering Inspector regarding the publicity requirements for road opening ceremonies. An outline of items to be considered as part of an Official Road Opening Ceremony is contained in **Appendix A6.5**.

The Project Manager will ensure that the Contracting Authority's Representative has issued a Certificate of Substantial Completion to the Contractor in accordance with the Contract prior to the Official Road Opening Ceremony.

The Contracting Authority's Representative should confirm that all required Road Safety Audits (at Stages 2 and 3) have been carried out in accordance with the Works requirements prior to the Official Road Opening Ceremony.

Prior to the Official Road Opening Ceremony, the Contracting Authority's Representative will liaise with the PSDP to inspect the Safety File and ensure that all Health & Safety issues are satisfactorily closed out prior to the opening of the road to traffic.

### **6.1.19 Final Account**

Following the Substantial Completion of the Works, the Contractor will be obliged to submit a Final Statement of Account in accordance with the Conditions of Contract.

In the event that a Final Statement of Account (or any part thereof) is referred to Alternative Dispute Resolution, the Project Manager will liaise with the TII Senior Engineering Inspector to confirm whether to engage experts and/or legal advisors to assist in preparing the Contracting Authority's case during dispute resolution proceedings. In such circumstances, the Project Manager should also agree the appropriate procurement process with the TII Senior Engineering Inspector.

Where the Final Outturn Cost of the Final Statement of Account (as agreed or as determined during dispute proceedings) exceeds the Tender Sum, the Project Manager will be required to obtain the approval of TII to discharge the balance payable to the Contractor.

### **6.1.20 Final Account Report**

Once the Final Outturn Cost of the Final Statement of Account has been determined, The Project Manager, in conjunction with the Contracting Authority's Representative, will prepare a Final Account Report relating to the main Contract.

The Final Account Report should include a statement of 'Lessons Learned' from the main Contract. This should highlight both the positive and negative aspects of the Contract.

In many cases, the determination of the Final Statement of Account may be a protracted process, particularly in the event of a dispute. As a result, the Final Account Report may not be finalised until Phase 7. In such circumstances, and in the event that the Contracting Authority's Representative is no longer retained, the Project Manager should ensure that all information and records necessary to complete the Final Account Report have been retrieved from site.

A template outlining the items to be included in the Final Account Report is contained in **Appendix A6.6**.

The report should give details of how the initial contract sum developed and evolved into amounts included in the penultimate and final payment certificates. The final account report shall contain directions outlining roles and responsibilities for the conclusion of any outstanding issues and the measures to take to inform the individuals responsible of their duties in this regard.

### **6.1.21 Updated Business Case**

It is generally expected that the Final Outturn Cost will not impact on the Total Scheme Budget (TSB) determined at Phase 5. In exceptional circumstances, amendments may have occurred. Where project scope has significantly changed then the Business Case may need to be updated per the requirements of *PAG Unit: 2.0* and *PAG Unit: 8.0*.

### **6.1.22 Lessons Learned Register**

At the end of Phase 6 it will be necessary to review and update the Lessons Learned Register.



### 6.1.23 Project Gate 6

The Project Manager will ensure that deliverables required for Phase 6 are finalised, where possible, and issued to TII at the end of Phase 6.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of Project maturity using the template in **Appendix A6.8**. This assurance will be endorsed by the Contracting Authority Director of Services. The Contracting Authority may proceed to Phase 7 when TII accept the Gate Review Statement and issue consent to proceed to Phase 7.

## 6.2 Deliverables

The deliverables for Phase 6 are listed below:

Source	Deliverables
PMG	Updated Project Execution Plan.
PMG	Phase 6 Gate Review Statement.

## 7 Phase 7 Close out and Review

The purpose of Phase 7 is to complete all outstanding contractual and residual issues relating to the project.

The processes and deliverables required to complete Phase 7 are outlined in **Figure 14**.

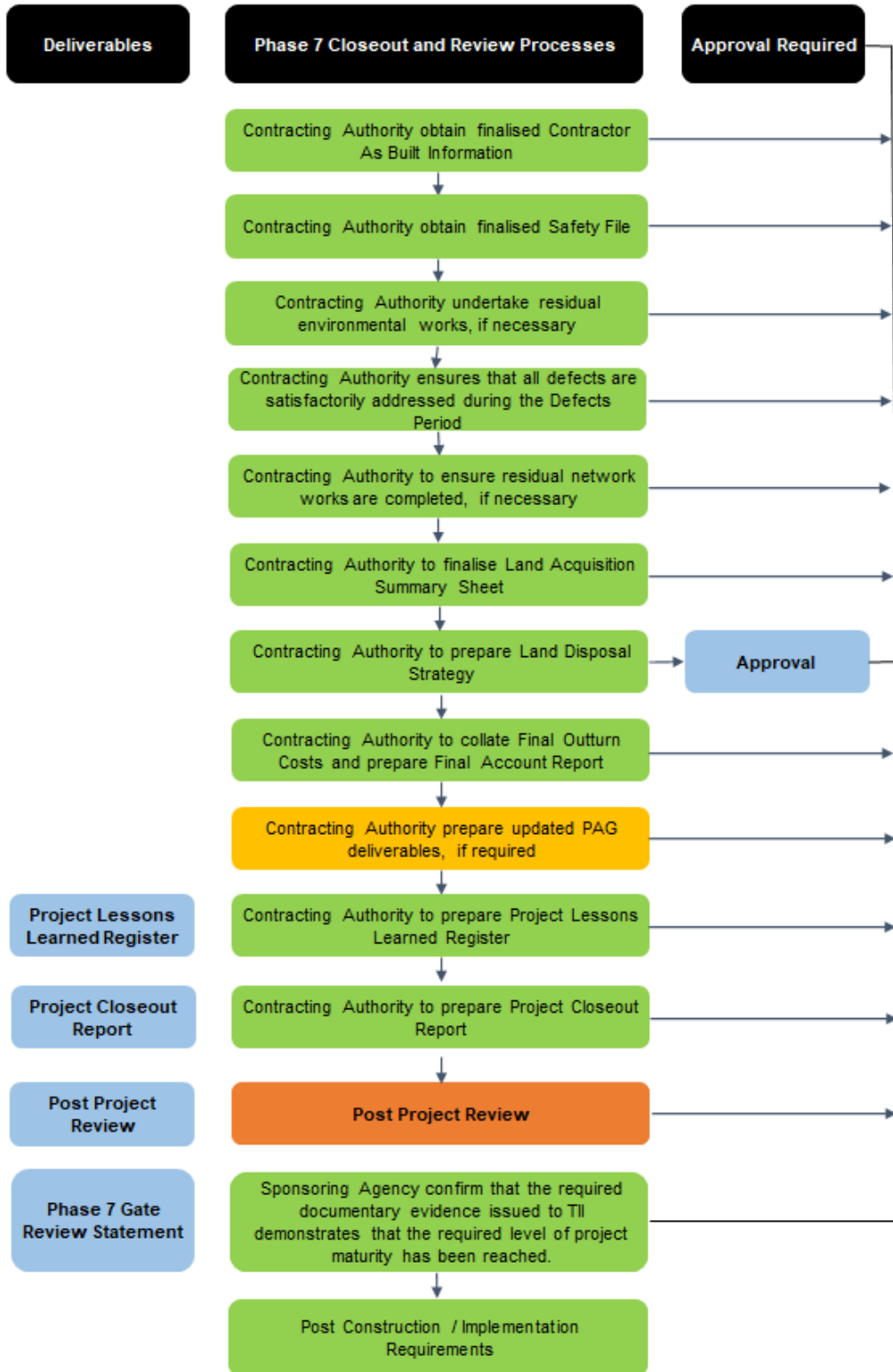


Figure 14

Workflow Diagram Phase 7

Phase 7 involves the completion of all outstanding contractual and residual issues relating to the Project leading to the closeout of the entire Project and the review of the Project to ascertain the key lessons to be learned for application to future Projects.

## **7.1 Processes**

### **7.1.1 Handover of 'As-Built' Documentation and Safety File to the Contracting Authority**

During Phase 6, and as necessary this Phase, the Contracting Authority's Representative (or in their absence the Project Manager) will verify that the 'As-Built' records are a true representation of the Project as constructed. The Contracting Authority's Representative will ensure that the 'As-Built' drawings and documents, prepared in accordance with the Contract, are handed over to the Contracting Authority.

The Contracting Authority's Representative will ensure that the Safety File is handed over to the Contracting Authority and that copies of the finalised 'As-Built' drawings and documents have been included therein.

### **7.1.2 Road Safety Audit Stage 4**

A Road Safety Audit Stage 4 (if required), in accordance with *GE-STY-01024 Road Safety Audit*, will be carried out on the project two to four months after the Project becomes operational.

### **7.1.3 Environmental Requirements**

#### **7.1.3.1 Completion of Landscaping Contract**

On Projects where the implementation of landscaping treatment does not form part of the main Contract, it will be necessary to appoint Landscaping Contractors to undertake landscaping on the completed Project.

All landscaping will be undertaken in accordance with *TII Publication GE-ENV-01102 A Guide to Landscape Treatments for National Road Schemes in Ireland*. The Project Manager will consult with the Sponsoring Agency Management Group regarding the requirement to carry out a separate landscaping contract and on the procurement method to appoint Landscaping Contractors.

Where required, Landscaping Contracts should also have regard to the *TII Guidelines on the Management of Noxious Weeds and Non-Native Invasive Species on National Roads* and to the Environmental Operating Plan to ensure that the legal obligations in relation to the control of noxious weeds and non-native invasive alien plant species are met.

### **7.1.4 Defects Period/Defects Certificate/Retention Monies**

The Defects Period, the duration of which will be as stated in the Contract, will generally commence after the Certificate of Substantial Completion has been issued to the Contractor.

The Contracting Authority's Representative will prepare a Snag List outlining all outstanding works and items to be addressed by the Contractor during the Defects Period.

At the end of the Defects Period, the Contracting Authority's Representative will issue a Defects Certificate in accordance with the Contract. The Contracting Authority's Representative will be responsible for ensuring that all defects are satisfactorily addressed during the Defects Period and that a Defects Certificate is issued in accordance with the Contract.

The Contractor will be entitled to partially claim for retention money due upon receipt of the Certificate for Substantial Completion and to claim for the balance of retention money due upon receipt of the Defects Certificate.

The Project Manager will ensure that adequate provision is made in the Project budget to discharge retention monies and that any such payments due to the Contractor are issued within the time periods specified in the Contract.

The Project Manager will seek confirmation from the Contracting Authority's Representative that all works (including accommodation works) have been satisfactorily completed, prior to releasing the retention monies.

### **7.1.5 Residual Network**

Following completion of the main Contract, most of the expenditure incurred in the closeout of the Project will be charged under the PRS heading of 'Residual Network.' This expenditure may include for the preparation of final reports (if not already included as part of other contracts) and other cost headings including:

- sign declassification;
- old national road rehabilitation; and
- percent for art project.

#### **7.1.5.1 Sign Declassification**

Unless otherwise provided for in the main Contract, an allocation should be included in the Total Scheme Budget to cover the cost of erecting new road signs, which are not included in the Works requirements, to take account of any declassification of the road network arising from the new project.

This would typically cover new traffic signs in bypassed towns where the national road network no longer passes through the town and on motorway projects where additional blue signs may be required on adjacent roads to alert motorists on the approach to the motorway.

Traffic signs erected as a result of the declassification of public roads adjacent to the project should be covered until the opening of the new road to traffic.

The funding allocation for sign declassification will be inclusive of sign design, manufacture and erection on site.

#### **7.1.5.2 Old National Road Rehabilitation**

An allocation for old national road rehabilitation may be made to cover the cost of carrying out repairs to the existing national road network adjacent to the Project.

The Project Manager may make a formal request to the TII Senior Engineering Inspector to allocate expenditure under the heading of 'Residual Network' and it will be necessary to obtain the prior written approval of the TII Senior Engineering Inspector outlining the approved allocation before any claim can be made. In many instances, individual Local Authorities may undertake these works directly as part of their ongoing maintenance programme.

The Project Manager will ensure that requests for funding from Local Authorities under the heading of 'Residual Network' will be properly claimed from the appropriate Project grant under PRS and will ensure that the total amount claimed does not exceed the amount approved by the TII Senior Engineering Inspector.

### **7.1.5.3 Percent for Art Project**

In accordance with Government policy, a budget allocation shall be made to public bodies delivering capital projects, including major road projects, for *Public Art: Percent for Art Scheme*. Guidance on the thresholds for public art under this scheme are provided in *DOEHLG Circular LS 1/97 Artistic Embellishment Scheme* and guidance on the commissioning of art work under this scheme is provided in *Guidelines for the Implementation of the Percent for Art*.

The Project Manager will make a formal request to the TII Senior Engineering Inspector to allocate expenditure under the heading of 'Percent for Art' and it will be necessary to obtain the prior written approval of the TII Senior Engineering Inspector outlining the approved allocation before any claim can be made under the Residual Network heading in PRS.

The TII approved allocation under 'Percent for Art' is an all-inclusive figure and will include for procurement of the artist including, where necessary, the appointment of an expert selection committee, administration and publicity costs as well as the cost of the artistic feature. The costs of the artistic feature include the design and construction of any civil works e.g. concrete plinths, erection costs etc.

All proposals for artistic features under the 'Percent for Art' Scheme must not pose a safety hazard to road users.

### **7.1.6 Land & Property**

There may be a number of outstanding land acquisition cases carried forward to Phase 7 and it will be necessary to complete all land transactions (either by agreement or independent assessment) prior to determining the Final Outturn Cost.

#### **7.1.6.1 Completion of all Outstanding Payments**

It will be necessary to ensure that all compensation payments are made to affected property owners so that the Final Outturn Cost for Land and Property can be determined. This includes all compensation cases which may have been referred to dispute resolution.

#### **7.1.6.2 Closeout and Completion of Land Acquisition Summary Sheet**

When all land and property costs have been determined, the Project Manager will update and complete the Land Acquisition Summary Sheet in accordance with the *TII CMM*.

#### **7.1.6.3 Land Disposal Strategy**

Following completion of the Project, there may be surplus lands forming part of the overall Land Acquisition which are not required by the Contracting Authority for the maintenance of the Project. In addition, there may be certain lands which the Contracting Authority has agreed to transfer to the ownership of individual landowners as part of a Land Agreement.

The disposal of Local Authority lands forming part of a TII-funded Project will be subject to the advance approval of the TII Senior Engineering Inspector. The disposal of Local Authority lands is a reserved function of the relevant Local Authority.

Where Land transfers are agreed between Local Authorities and individual Landowners as part of a Land Acquisition Agreement, the special clause of the Agreement outlining this land transfer should include the following statement: "*This land transfer is made subject to the agreement of the elected members of [ ] County / City Council pursuant to Section 183 of the Local Government Act, 2001 and subject to the approval of the TII*". Individual Local Authorities may have their own procedures for Land Disposal.

The Project Manager should check with the relevant Local Authority and where applicable ensure that the proposed Land Disposal Strategy complies with Local Authority procedures.

Where it is proposed to dispose of lands from a TII-funded project, it will be necessary to prepare a Land Disposal Strategy Report and submit with the application for TII approval of the proposed land disposal. A template for a Land Disposal Strategy Report is contained in **Appendix A7.1**.

The Project Manager will submit the Land Disposal Strategy Report to the TII Senior Engineering Inspector for approval.

### **7.1.7 Final Outturn Cost**

As the Project nears completion, the Project final outturn costs for each of the principal cost headings should be compiled. All such costs should be inclusive of VAT. The Project Final Outturn Cost is the sum of all outturn costs from each cost heading in the TII PRS.

The Project Manager will compile the base cost elements, based on final outturn costs, of Target Cost 4 (TC4) in accordance with the *TII CMM*. The TC4 base cost estimates will be issued to the TII Senior Engineering Inspector.

As outlined in the *TII CMM*, it is not anticipated that there will be any change to the Total Scheme Budget at Phase 7. The main Contract element of the Project Base Cost should be as determined in the Final Account Report and should be VAT inclusive.

The site supervision costs should include for direct costs of Local Authority personnel and/or Technical Advisor costs, including any retention monies due in accordance with the Technical Advisor's conditions of appointment.

The Archaeology costs should include for the costs of all works to date up to and including the publication of results. The Project Manager will ensure that all post-excavation works and all archaeological reports summarising the findings have been completed and that adequate dissemination of the findings was carried out where appropriate. The Project Manager will ensure that all payments have been made and all archaeological contracts have been closed out.

It is recommended that all archaeological reports be published as soon as possible after completion of the main Contract to avoid delays at Project closeout. The Project Manager should follow up on any reports awaiting publication.

The enabling works contract costs should include for all enabling works contracts and should include for costs associated with the design and tender of these contracts.

Residual network costs should include for the costs of sign declassification, old road rehabilitation, and the 'Percent for Art' scheme and should also include for all other costs associated with closing out the Project.

Land & Property costs should be as per the completed Land Acquisition Summary Sheet outlined in the *TII CMM*.

Planning & design costs should include for NRO/PO Costs, Technical Advisor costs, and/or specialist advisor costs (e.g. legal, communications etc.).

### **7.1.8 Phase 7 Cost-Benefit Analysis**

The Project Manager will prepare a Cost-Benefit Analysis. The Phase 7 Cost-Benefit Analysis will be carried out using out-turn costs and actual traffic records on the new Project in accordance with TII PAG.

### 7.1.9 Project Closeout Report

It will be necessary to prepare a Project Closeout Report, which will provide details of the Final Outturn Cost for the Project and for each of the seven PRS headings. A template for a Project Closeout Report is contained in **Appendix A7.2**.

In instances where some elements of Project Expenditure remain outstanding, the Project Closeout Report should be completed to the extent of known expenditure and have an estimate of any outstanding expenditure included.

TII will require a copy of the Project Closeout Report, which will provide a statement of the Final Outturn Cost before the Project can be closed out.

### 7.1.10 Post Project Review

In accordance with the requirements of *PAG Unit: 2.0 – Project Appraisal Deliverables*, it is necessary to undertake Post Project Reviews (PPR) on all Major Projects i.e. of value greater than €20m. It is the responsibility of the Contracting Authority to undertake the Post Project Review.

Such reviews will be undertaken by a person or persons who is / was not directly involved in the Project. An outline of items to be considered for a PPR is contained in **Appendix A7.3**. Detailed guidance and requirements are set out within *PAG Unit: 9.0 – Post Project Review*.

The Project Manager will provide the information necessary to complete the Post Project Review to the person(s) undertaking the review within the timeframe specified.

The information required to complete the PPR should be compiled as the Project is progressing as otherwise it may take a significant amount of time to retrieve the information once the Project is complete. Persons compiling the information for PPR should also be mindful of the fact that the person(s) undertaking the PPR will not be familiar with the Project.

The persons compiling the PPR will be required to meet with the Project Manager and any other relevant personnel to discuss first-hand any issues arising from the Project.

TII compile a 'Lessons Learned' database of findings arising from all Post-Project Reviews and will periodically refer these findings to other TII sections to determine what changes may be required to TII's practices, procedures, standards and guidelines. The Lessons Learned Register shall therefore form an important part of the Post Project Review.

### 7.1.11 Project Gate 7

The Project Manager will ensure that deliverables required for Phase 7 are finalised and issued to TII at the end of Phase 7.

The Project Manager will prepare a Gate Review Statement confirming that deliverables issued to TII meet the required level of Project maturity using the template in **Appendix A7.5**. This assurance will be endorsed by the Contracting Authority Director of Services.

In accepting Project Gate 7, TII will advise the Project Manager that no further monies can be drawn down under the Project Grant. This marks the formal Closeout of the Project.

Following receipt of TII acceptance of Project Gate 7, the Project Manager will notify the Finance Department of the Contracting Authority and advise them that no further monies may be drawn down from the Project grant.

Due to the implications for the acceptance of Project Gate 7 triggering the formal closeout of the Project, it is advisable that the Project Manager be satisfied that there is no outstanding financial

exposure for the Project as the Contracting Authority may be responsible for this expenditure if the Project grant is closed out.

## 7.2 Deliverables

The deliverables for Phase 7 are listed below:

Source	Deliverables
PMG	Project Closeout Report
PMG	Post Project Review
PMG	Project Lessons Learned Register.
PMG	Phase 7 Gate Review Statement.

## 7.3 Post Construction / Implementation Requirements

TII will carry out post-implementation assessments on completed Projects, to ensure that lessons learned and best practices are adopted for future Projects. TII will place particular focus on the assessment and maintenance of environmental measures such as drainage systems, noise mitigation measures, ecological enhancement and landscaping, to ensure that the road network functions in an environmentally sustainable manner.



## **8 References**

### **8.1 TII Publications (Standards) References**

CC-CMG-04001 - Preparation and Delivery Requirements for As-Built Records.

CC-SCD-00319 - Fencing - Mammal Resistant Fence.

CC-SCD-00320 - Fencing - Timber Post and Tension Mesh Fence.

CC-SCD-00321 - Fencing - Timber Post and Tension Mesh Stud Fence.

CC-SCD-00324 - Fencing - Mammal Resistant Fencing for Timber Post and Tension Mesh Fence.

DN-DNG-03065 - Road Drainage and the Water Environment (including Amendment No. 1 dated June 2015).

DN-ERW-03083 - Managing Geotechnical Risk (to be published).

DN-GEO-03031 - Rural Road Link Design.

DN-GEO-03036 - Cross Sections and Headroom.

DN-GEO-03041 - The Design of Major Interchanges.

DN-REQ-03034 - Safety Barriers (Including Amendment No. 3, dated January 2016).

DN-STR-03001 - Technical Acceptance of Road Structures on Motorways and Other National Roads.

DN-TSM-03082 - Traffic Signs Approval Procedure.

GE-ENV-01101 - The Management of Waste from National Road Construction Projects.

GE-ENV-01102 - A Guide to Landscape Treatments for National Road Schemes in Ireland

GE-GEN-01005 - Departures from Standards and Specification.

GE-STY-01024 - Road Safety Audit.

PE-PMG-02001 - Road Safety Impact Assessment.

### **8.2 TII Publications (Technical) References**

PE-PAG-02010 - Project Appraisal Guidelines for National Roads Unit 2.0 - Project Appraisal Deliverables.

PE-PAG-02011 - Project Appraisal Guidelines for National Roads Unit 2.1 - Project Appraisal Plan.

PE-PAG-02012 - Project Appraisal Guidelines for National Roads Unit 3.0 - Project Brief.

PE-PAG-02013 - Project Appraisal Guidelines for National Roads Unit 4.0 - Consideration of Alternatives and Options.

PE-PAG-02014 - Project Appraisal Guidelines for National Roads Unit 5.0 - Transport Modelling Overview.

PE-PAG-02016 - Project Appraisal Guidelines for National Roads Unit 5.2 - Data Collection.

PE-PAG-02021 - Project Appraisal Guidelines for National Roads Unit 6.2 - Preparation of Scheme Costs.

PE-PAG-02023 - Project Appraisal Guidelines for National Roads Unit 6.4 - Guidance on using COBALT.

PE-PAG-02030 - Project Appraisal Guidelines for National Roads Unit 6.11 - National Parameter Values Sheet.

PE-PAG-02031 - Project Appraisal Guidelines for National Roads Unit 7.0 - Multi Criteria Analysis.

PE-PAG-02032 - Project Appraisal Guidelines for National Roads Unit 7.1 - Project Appraisal Balance Sheet.

PE-PAG-02033 - Project Appraisal Guidelines for National Roads Unit 8.0 - Business Case.

PE-PAG-02034 - Project Appraisal Guidelines for National Roads Unit 9.0 - Post Project Review.

PE-PMG-02041 - Project Management Guidelines.

### **8.3 Other Miscellaneous References**

Arterial Drainage Act, 1945.

Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, 2017. Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland.

Department of Art, Sport and Tourism, 2004. Public Art: Per Cent For Art Scheme General National Guidelines.

Department of the Environment and Local Government, 1997. Circular LS 1/97 Artistic Embellishment Scheme.

Department of Environment, Community and Local Government, 2012. Spatial Planning and National Roads, Guidelines for Planning Authorities.

Department of Finance, 2009. Guidance Note 1.1 Project Management.

Department of Public Expenditure & Reform, 2012. The Public Spending Code.

Department of Public Expenditure & Reform, 2018. Guidance Note 1.4 Procurement and Contract Strategy for Public Works Contracts.

Department of Public Expenditure & Reform, 2018. Guidance Note 1.5.1 Public Works Contracts: Managing the Pre-Contract Phase.

Department of Public Expenditure & Reform, 2018. Guidance Note 1.6 Procurement Process for Consultancy Services.

Department of Transport, Tourism and Sport, 2016. Acquisition of Certain Lands for National Roads: Agreement between the Irish Farmers' Association (IFA), Transport Infrastructure Ireland (TII) And Department of Transport, Tourism and Sport (DTTAS).

Department of Transport, 2010. Traffic Signs Manual.

Environmental Protection Agency, 2002. Guidelines on the information to be contained in Environmental Impact Statements.

Environmental Protection Agency, 2003. EPA Advice notes on Current Practice in the Preparation of Environmental Impact Statements

Environmental Protection Agency, 2017. Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports.

Environmental Protection Agency, 2018. Guidance on Soil and Stone By-products

Iarnród Éireann, 2018. CCE-TMS-310 Guidance on Third Party Works

Local Government Act 2001 (as amended).

Local Government (Water Pollution) Act 1977 (as amended).

National Roads Authority, 2004. Guidelines for the Treatment of Noise and Vibration in National Road Schemes

National Roads Authority, 2007. Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan.

National Roads Authority, 2008. Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes.

National Roads Authority, 2008. Environmental Impact Assessment of National Road Schemes – A Practical Guide.

National Roads Authority, 2008. Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

National Roads Authority, 2009. Guidelines for Assessment of Ecological Impacts of National Road Schemes.

National Roads Authority, 2010. The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads.

National Roads Authority, 2011. Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes.

National Roads Authority, 2014. Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes.

Office of Public Works. A Guide to Applying for Consent under Section 50 of the EU (Assessment and Management of Flood Risks) Regulations SI 122 of 2010 and Section 50 of The Arterial Drainage Act, 1945.

Ordnance Survey Ireland, 2008. Project planning for the transformation of geographic data from Irish Grid (IG) to Irish Transverse Mercator (ITM).

Planning and Development Act 2000 (as amended).

Planning and Development Regulations 2001 (as amended).

Planning and Development (Strategic Infrastructure) Act 2006.

Roads Act 1993 (as amended).

Road Traffic Act 1961 (as amended).

S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016.

Transport Act 1944 (as amended).

Transport Infrastructure Ireland Notes for Guidance on the Specification for Road Works (Manual of Contract Documents for Road Works).

Waste Management Act 1996 (as amended).

## Appendix A: Appendices

**A0.1 Document Register (Sample Template, Collaboration and Content Management Software may be utilised)**

No.	Date	From/To	Subject	Author/Document Ref.	File Location	Reply Required? Y/N	Reply Ref.

**A0.2 Decision Register (Sample Template, Collaboration and Content Management Software may be utilised)**

No.	Decision Made/Milestone/Deliverable/ Related Items	Decision Approved? Y//N	Date	TII Document Reference, if applicable	Source File Reference/ Location	Follow up Action Required? Y/N

### A0.3 Lessons Learned Register (Sample Template, Collaboration and Content Management Software may be utilised)

No.	'Lesson'	Further Action Required – Y/N	Application to future Projects
1			
2			
3			

### A0.4 Outline of Items to be included within the Project Dossier

The outline of Items to be included as within the Project Dossier shall include, but not be limited to, the following:

No.	Item	
1	Any drawings or documentation prepared in relation to the Project, relating to the current Project or previous iterations.	
2	Any project appraisal, design, or environmental evaluation documentation prepared in relation to the Project, relating to the current Project or previous iterations.	
3	If applicable, output information from previous planning applications or interactions with planning authorities.	
4	Details of proposed service diversions, if any, and existing service information, if available.	
5	Ground	
6	Topographical survey data – Digital Terrain Model, control stations, proof surveys etc.	
7	Environmental survey data and reporting, relating to the current Project or previous iterations.	
8	Archaeological data - results of intrusive and non-intrusive surveys, and any other available reports.	
9	Information on planning applications.	
10	Compulsory acquisition of land documentation, if applicable.	
11	Road safety reports.	
12	Approvals – OPW Section 50 consents, TII Structures Approvals, CIE Railway Approvals etc.	
13	Health and safety documentation.	

## A0.5 Phase 0 Gate Review Statement

[On Sponsoring Agency Letterhead]

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

[Insert Date]

Attn : [Insert relevant TII Regional Manager Name]

Re : [Insert Project Name]

A Dhuine Uaisle,

We refer to the above referenced national road Project.

[Insert Sponsoring Agency Name] hereby confirm the following:

1. [Insert Sponsoring Agency Name] have completed in full all of the processes required in the TII Project Management Guidelines for Phase 0 (Scope and Pre-Appraisal).
2. The Project Appraisal Plan has been prepared and accepted by the Strategic Research and Development Unit of the Department of Transport, Tourism and Sport. A copy of the Department's correspondence in this regard is attached.

Accordingly, [Insert Sponsoring Agency Name] request Transport Infrastructure Ireland approval to the following:

1. Procurement of Technical Advisors to progress the above referenced national road Project through Phases 1 to 4 inclusive of the TII Project Management Guidelines<sup>4</sup>; and
2. Progression of the above referenced national road Project from Phase 0 (Scope and Pre-Appraisal) to Phase 1 (Concept and Feasibility) of the TII Project Management Guidelines.

Is mise le meas,

[Sponsoring Agency Director of Services]

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<sup>4</sup> Delete if not applicable



### A1.1 Outline duties of the Project Liaison Officer

Ref.	Chapter	
1	<p>The Duties of the Project Liaison Officer shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Provide information to stakeholders affected by the Project in relation to, inter alia, proposed landtake, proposed accommodation works and the statutory processes e.g. by providing maps and information published by TII.</li> <li>• Agree access to privately owned lands for Contractors carrying out advance works and surveys (both intrusive and non-intrusive) as part of the Project. Adequate written notice (14 days in accordance with the IFA/DOE/TII Agreement) shall be given to affected stakeholders.</li> <li>• In instances where access to lands cannot be obtained by agreement, make the necessary provisions to exercise the Local Authority's legal entitlement to access lands pursuant to Section 78 of the Roads Act 1993, as amended.</li> <li>• Confirm, in writing where necessary, to affected stakeholders that Contractors acting on behalf of the Local Authority to carry out the above works have the necessary insurance in place to indemnify the stakeholders in the event of personal injury or material damage.</li> <li>• In the case of intrusive surveys (e.g. ground investigation, archaeological test trenching etc.), determine the extent and quantum of compensation due to each affected stakeholder and recommend payments to be made by the Local Authority.</li> <li>• Agree, as soon as possible, the nature and extent of accommodation works required for each affected stakeholder for inclusion in the Project design and/or environmental evaluation.</li> <li>• Assess the accuracy of land ownership records held by the Local Authority and confirm these records with individual stakeholders. Attention should be given to determining private rights-of-way and other burdens which may be affected by the Project and may require inclusion in the compulsory acquisition of land schedule.</li> <li>• Make all reasonable enquiries to establish the identity of land owners where no reliable records exist (e.g. unregistered land).</li> <li>• Act as the primary point of contact / intermediary in dealings between the main roadworks contractor and affected stakeholders in areas such as access, disruption to services and disturbance/nuisance during construction.</li> <li>• Ensure that any environmental evaluation mitigation measures relating to land &amp; property are implemented.</li> <li>• Ensure that stakeholders have reasonable access to their lands at all times during the construction of the Project.</li> <li>• Ensure, in conjunction with the Project Manager, if separate, that the necessary approvals are in place to serve the statutory notices (Notice to Treat, Notice of Entry) within the specified time limits.</li> <li>• Maintain accurate records of the Date of Entry by the Local Authority onto scheduled lands and advise the local authority of the total period, if any, for which interest is payable (Date of Land Agreement – Date of Entry = total number of days for which interest is payable).</li> <li>• Ensure that pre-construction surveys on properties and monitoring of wells during construction are carried out to the satisfaction of both the Local Authority and the affected stakeholder.</li> <li>• Assist the property valuation advisor and the Local Authority legal team in cases where the matter of compensation for compulsory acquisition of land has been referred to arbitration.</li> </ul>	

Ref.	Chapter	
2	<p>In addition to the above, in cases where two or more local authorities are affected by the Project, the PLO shall have the following duties in relation to the Local Authorities that do not fulfil the role of Sponsoring Agency (Lead Local Authority):</p> <ul style="list-style-type: none"><li>• Inform the Local Authorities of progress on the Project and provide such information necessary for these Local Authorities to make informed decisions.</li><li>• Co-ordinate arrangements between Local Authorities (e.g. Section 85 agreements, statutory processes, compulsory acquisition of land reports etc.).</li><li>• Agree accommodation works with the Local Authorities.</li><li>• Submit Land Agreements to the Local Authorities for approval.</li></ul>	

## A1.2 Outline for Procurement File

The outline of items for a Procurement File shall include, but not be limited to, the following:

No.	Item	
1	Include PEP schedule of programmed procurement.	
2	Authorisation to proceed to prequalification / seek expressions of interest / tender (i.e. Letter of authorisation or extract from Steering Committee Meeting etc.)	
3	Contract notice in OJEU.	
4	Newspaper advertisements, website advertisements etc. (including clearly displayed date of publication).	
5	Procurement programme / timetables together with changes and updates.	
6	All information downloadable from e-tenders or sent to applicants. (i.e. suitability questionnaire and other attached / published information).	
7	Record of contacts / communications from / to all interested parties. (i.e. correspondence, phone calls, emails and e-tenders record of interest).	
8	Pre-qualification assessment procedures and methodology.	
9	All prequalification queries from applicants.	
10	All circulars / bulletins / notices published or issued.	
11	Pre-qualification submissions opening report.	
12	All communications and arrangements for pre-qualification assessment and/or interviews.	
13	All communications with applicants regarding pre-qualification assessments and/or interviews.	
14	Pre-qualification assessment / shortlisting report signed by assessment board including relevant marking sheets, as required by assessment procedures.	

No.	Item	
15	Authorisation to proceed to tender phase.	
16	Letters to unsuccessful applicants.	
17	Correspondence from / to unsuccessful applicants.	
18	Letters of invitation to tender to shortlisted candidates / tenderers.	
19	All tender information issued to tenderers.	
20	All communications to/from tenderers (including correspondence, emails, records of phone calls etc.	
21	All tender queries received from candidates / tenderers.	
22	All tender circulars / bulletins / memoranda / notices issued to candidates / tenders.	
23	All responses to tender queries not included in circulars (e.g. commercial in confidence responses).	
24	Tender assessment procedures and methodology including independent arithmetical check, if required.	
25	Tender submissions opening report / local authority tender opening procedure.	
26	Communication and arrangements for tender assessment and/or interviews.	
27	Records of all post tender clarifications and communications with candidates / tenderers.	
28	Record of marking project including marks awarded and debriefing notes.	
29	Tender assessment report including all supporting documentation in accordance with agreed tender assessment methodology.	
30	Local authority letter of recommendation and Managers Order.	
31	Authorisation to proceed to award.	
32	Letters to apparently unsuccessful candidates / tenderers.	

No.	Item	
33	All communications to / from unsuccessful candidates / tenderers.	
34	Letter of intent / acceptance to successful candidate.	
35	All correspondence to / from successful candidate regarding conditions of letter of intent / acceptance (insurance, tax clearance etc.).	
36	Extract of signed pages from signed contract when available.	
37	Note of location of original signed contract.	
38	Contract award notice in OJEU.	
39	Record of all payments made.	
40	Approvals for all expenditure in excess of the tendered amount, to include details of compensation events, variations, agreed claims etc.	

### A1.3 Phase 1 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10  
*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 1 (Concept and Feasibility).
2. The Project Brief has been prepared in accordance with the TII Project Appraisal Guidelines and submitted to Transport Infrastructure Ireland for your records.
3. The Feasibility Working Cost has been prepared in accordance with the TII Cost Management Manual and submitted to Transport Infrastructure Ireland for your records.
4. The Project Execution Plan has been prepared and submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Progression of the above referenced national road Project from Phase 1 (Concept and Feasibility) to Phase 2 (Option Selection) of the TII Project Management Guidelines.

Is mise le meas,

*[Sponsoring Agency Director of Services]*

## A2.1 Outline of Agenda Items for Project Set-up Workshop

The outline of agenda Items for a project set-up workshop may include, but not be limited to, the following:

No.	Item	
1	<p><b>Introductions</b></p> <ul style="list-style-type: none"> <li>• Participant introductions.</li> <li>• Workshop objectives (rules and roles).</li> <li>• Project scope (need for workshop).</li> <li>• TII objectives.</li> </ul>	
2	<p><b>Project Organisation &amp; Relationships</b></p> <ul style="list-style-type: none"> <li>• Role of the TII, NRO, NRPO and Local Authorities.</li> <li>• Role of the Project Manager and Project Coordinator, if appointed.</li> <li>• Roles of the Technical Advisors and other members of the Project team.</li> </ul>	
3	<p><b>Reporting Requirements</b></p> <ul style="list-style-type: none"> <li>• Budgeting, forecasting and expenditure requirements.</li> <li>• TII Publications requirements (PMG/PAG/CMM).</li> <li>• Project controls &amp; monitoring.</li> </ul>	
4	<p><b>Meetings</b></p> <ul style="list-style-type: none"> <li>• Steering Group meetings (attendees, frequency, remit).</li> <li>• Sponsoring Agency Management Group meetings.</li> <li>• Technical Meetings and Workshops (attendees, frequency, remit).</li> <li>• Coordination Meetings.</li> <li>• Documentation Workshops.</li> <li>• Site Progress Meetings.</li> <li>• Dispute Management Project Board (attendees, frequency, remit).</li> </ul>	
5	<p><b>Early Information Requirements &amp; Fast-track Elements</b></p> <ul style="list-style-type: none"> <li>• Identification of early information requirements.</li> <li>• Identification of elements of the design process which can be fast-tracked).</li> </ul>	
6	<p><b>Effective Team-working</b></p> <ul style="list-style-type: none"> <li>• Key elements of effective team-working.</li> <li>• Identification of elements of team-working that can go wrong.</li> <li>• Identification of barriers to teambuilding and measures to address these barriers.</li> <li>• Outline of measures to ensure non-adversarial approach.</li> </ul>	

No.	Item	
7	<p><b>Feasibility Studies &amp; Early Programme Activities</b></p> <ul style="list-style-type: none"> <li>• Roles &amp; responsibilities.</li> <li>• Strengthening any previous traffic studies undertaken.</li> <li>• Initial junction strategy.</li> <li>• Initial indicative selection of road type.</li> <li>• Compatibility/ retro-fit with previous projects.</li> <li>• Tie-in with adjacent projects.</li> <li>• Structures feasibility requirements.</li> </ul>	
8	<p><b>Early Scoping for Environmental Evaluation</b></p> <ul style="list-style-type: none"> <li>• Roles &amp; responsibilities.</li> <li>• Key issues to be identified.</li> <li>• Decision making process &amp; timescales.</li> <li>• Roles of the Technical Advisors and other members of the Project team.</li> </ul>	
9	<p><b>Stakeholder Consultation</b></p> <ul style="list-style-type: none"> <li>• Roles &amp; responsibilities.</li> <li>• Proposed approach to Stakeholder Consultation.</li> </ul>	
10	<p><b>Workshop Review</b></p> <ul style="list-style-type: none"> <li>• Review of agreed actions arising from workshop including responsibility for each action.</li> <li>• Review of key decision points on scope / programme.</li> <li>• Review of any other issues arising.</li> </ul>	



## A2.2 Outline for Constraints Study

The outline of Items to be considered as part of the constraints study includes, but not be limited to, the following:

No.	Item	✓
1	<p><b>Natural Constraints</b></p> <p>Natural constraints are those which are naturally occurring landscapes and features.</p> <ul style="list-style-type: none"> <li>• Ecological Constraints:                             <ul style="list-style-type: none"> <li>• The specific objective of the ecological constraints study is to identify the international, national, county, and local constraints that must be considered for the proposed Project.</li> <li>• Refer to the TII Guidelines for Assessment of Ecological Impacts of National Road Schemes.</li> <li>• Refer to TII Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes.</li> <li>• Consult appropriate bodies to collate information on ecological constraints, this can include but is not limited to the following:                                     <ul style="list-style-type: none"> <li>○ National Parks and Wildlife Service.</li> <li>○ Inland Fisheries Ireland.</li> <li>○ BirdWatch Ireland.</li> <li>○ Bat Conservation Ireland.</li> <li>○ Vincent Wildlife Trust.</li> <li>○ Stakeholders.</li> </ul> </li> </ul> </li> <li>• Geology, Hydrology and Hydrogeology:                             <ul style="list-style-type: none"> <li>• Refer to TII Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for national Road Schemes.</li> <li>• Consult appropriate bodies to collate information on geology, hydrology and hydrogeology constraints, this can include but is not limited to the following:                                     <ul style="list-style-type: none"> <li>○ Ordnance Survey Ireland.</li> <li>○ Geological Survey of Ireland.</li> <li>○ Teagasc.</li> <li>○ Environmental Protection Agency.</li> <li>○ Office of Public Works.</li> <li>○ Inland Fisheries Ireland.</li> <li>○ Publically available ground investigation data.</li> <li>○ Previous studies.</li> <li>○ National Parks and Wildlife.</li> <li>○ Stakeholders.</li> </ul> </li> </ul> </li> <li>• Landscape and Visual:                             <ul style="list-style-type: none"> <li>• Refer to TII Guidelines on the Implementation of Landscape Treatments on national road schemes in Ireland.</li> </ul> </li> </ul>	

No.	Item	✓
	<ul style="list-style-type: none"> <li>• Refer to TII A Guide to Landscape Treatments for National Road Schemes in Ireland.</li> <li>• Consult appropriate bodies to collate information on landscape and visual constraints, this can include but is not limited to:               <ul style="list-style-type: none"> <li>○ Local Authorities.</li> <li>○ National Inventory of Architectural Heritage.</li> </ul> </li> <li>• Consider topographical data, including historical mapping.</li> </ul>	
2	<p><b>Artificial Constraints</b></p> <ul style="list-style-type: none"> <li>• Land Use and Planning:</li> <li>• Consult appropriate bodies to collate information on Land Use and Planning, this can include but is not limited to:               <ul style="list-style-type: none"> <li>○ National, Regional, and Local Planning Policy.</li> <li>○ Previous studies.</li> <li>○ Central Statistics Office data.</li> <li>○ Proposed and Planned developments per Local Authority development plan, national planning framework etc.</li> </ul> </li> <li>• Engineering:</li> <li>• Consider engineering and infrastructural constraints, this can include but is not limited to:               <ul style="list-style-type: none"> <li>○ Topography and landscape.</li> <li>○ Rivers and the coastal domain.</li> <li>○ Roads, railways, public transport, ports, airports etc.</li> <li>○ Consider safety implications of Project development</li> <li>○ Refer to DoECLG (2012) Spatial Planning and National Roads, Guidelines for Planning Authorities.</li> <li>○ Waste, refer to TII Guidelines for the Management of Waste from National Road Construction Projects and EPA Guidance on Soil and Stone By-products.</li> </ul> </li> <li>• Archeology, Architectural and Cultural Heritage:               <ul style="list-style-type: none"> <li>○ Consider recorded archaeological, architectural and cultural heritage sites and areas of archaeological or architectural potential.</li> <li>○ Refer to National Inventory of Architectural Heritage.</li> </ul> </li> <li>• Material Assets – Agriculture:               <ul style="list-style-type: none"> <li>○ Identify agricultural constraints.</li> <li>○ Consult appropriate bodies to collate information on agricultural constraints, this can include but is not limited to:                   <ul style="list-style-type: none"> <li>○ Central Statistics Office.</li> <li>○ Environmental Protection Agency.</li> <li>○ Stakeholders.</li> </ul> </li> </ul> </li> <li>• Material Assets – Non-Agriculture:</li> </ul>	

No.	Item	✓
	<ul style="list-style-type: none"> <li>• Consider utility constraints such as gas, water, electricity, telecommunications.</li> <li>• Consider built environment constraints.</li> <li>• Air Quality and Climate:               <ul style="list-style-type: none"> <li>• Refer to TII Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes.</li> <li>• Consult appropriate bodies to collate information on air quality and climate constraints, this can include but is not limited to:                   <ul style="list-style-type: none"> <li>○ Environmental Protection Agency.</li> <li>○ Local Authorities.</li> <li>○ Stakeholders.</li> </ul> </li> <li>• Noise and Vibration:                   <ul style="list-style-type: none"> <li>• Refer to TII Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes.</li> <li>• Refer to TII Guidelines for the Treatment of Noise and Vibration in National Road Schemes.</li> <li>• Consult appropriate bodies to collate information on noise and vibration constraints, this can include but is not limited to:                       <ul style="list-style-type: none"> <li>○ Environmental Protection Agency.</li> <li>○ Local Authorities.</li> <li>○ Stakeholders.</li> </ul> </li> </ul> </li> <li>• Human Beings:                   <ul style="list-style-type: none"> <li>• The purpose of examining Human Beings constraints is to identify locations where impacts on human beings and communities could potentially occur. This can include, but is not limited to, examining the impacts on the economy, business, tourism, amenities, the views of public bodies and local interest groups, and community facilities and the like.</li> <li>• Refer to TII Environmental Impact Assessment of National Road Schemes – A Practical Guide.</li> <li>• Refer to EPA Advice notes on Current Practice in the Preparation of Environmental Impact Statements / Environmental Impact Assessments.</li> <li>• Refer to EPA Guidelines on the information to be contained in Environmental Impact Statements / Environmental Impact Assessments.</li> <li>• Consult appropriate bodies to collate information on Human Beings constraints, this can include but is not limited to:                       <ul style="list-style-type: none"> <li>○ Environmental Protection Agency.</li> <li>○ Local Authorities.</li> <li>○ Stakeholders.</li> </ul> </li> </ul> </li> </ul> </li> </ul>	
3	<p><b>External Parameters</b></p> <ul style="list-style-type: none"> <li>• Funding &amp; Scope.</li> <li>• Construction Phasing.</li> <li>• Required Levels of Service.</li> <li>• Technical Standards (Design Speeds, Road Type etc.).</li> </ul>	

No.	Item	✓
	<ul style="list-style-type: none"><li>• Access Control.</li><li>• Policy Documents.</li><li>• Procedural &amp; Legal Requirements.</li></ul>	
4	<b>Inter-Relationships:</b> Whilst undertaking the constraints study it is necessary to consider the divisions above in parallel. This is necessary as constraints in the divisions above are interrelated and indeed dependent on one another.	

### A2.3 Outline for Non-Statutory Public Consultation

The outline of Items to be considered as part of the non-statutory public consultations may include, but is not limited to, the following:

No.	Item	✓
1	Provide briefings on the alternative options / preferred option / update to Local Authority management and elected members of affected Local Authorities in advance of the public consultation.	
2	Notify stakeholders affected by the alternatives / preferred option / update in advance of the public consultation.	
3	Notify public bodies in advance of the public consultation.	
4	Arrange a suitable venue for the public consultation, near to the Project. On larger projects, multiple venues may be required.	
5	Arrange for sufficient display material, display boards, projectors as required to be at the venue.	
6	<p>Prepare a brochure for the Project and if required, a questionnaire. Set up a business reply (freepost) and dedicated Project e-mail address for return of completed questionnaires.</p> <p>On some projects, it may be desirable to establish an online tool via which stakeholders may examine Project documentation and comment on the proposed alternatives being examined or the preferred solution.</p>	
7	Prepare a presentation to run during the public consultation.	
8	Prepare press releases and public notices in advance of the public consultation.	
9	Inform the TII communications unit and submit copies of brochures, press releases, and any other publicity information.	
10	Arrange for Technical Advisors and Sponsoring Agency personnel to attend and ensure that staff are fully briefed on the Project.	
11	Ensure all display material, brochures, questionnaires and other material is in place before opening the venue to the public.	
12	Ensure that Local Authority offices and areas offices have additional copies of display material for inspection, if required.	
13	Prepare an attendance sheet for the venue so that the number of people who attended can be recorded.	
14	Ensure that provision is made for returning completed questionnaires at the venue.	

## A2.4 Outline for Stage 1 – Preliminary Options Assessment (Engineering and Environmental)

The outline of Items to be considered as part of the Stage 1 – Preliminary Options Assessment (Engineering and Environmental) shall include, but not be limited to, the following:

No.	Item	✓
	<b>Engineering Assessment Criteria</b>	
1	Traffic assessment including proposed level of intervention (cross-section) and existing traffic conditions.	
2	Evaluation of compliance with technical standards (TII Publications, for example in the case of road Projects compliance with minimum horizontal radii, maximum vertical gradients, relaxations, departures etc.)	
3	Examination of junction strategy, access control and interaction with existing transportation networks.	
4	Examination of structures (river, road & rail bridges, culverts, underpasses and other structures, and their clearances and maintenance requirements).	
5	Geology and its potential impacts on construction (underlying ground conditions, sensitive areas / areas of poor ground including karst, caves, peat etc.). Note, it may be necessary to undertake ground investigations works to assess these conditions.	
6	Groundwater (aquifers, springs, wells and their vulnerability to major earthworks).	
7	Earthworks (cut and fill volumes, comparative earthworks balance, maximum depth of cuttings and height of embankments).	
8	Road Safety Impact Assessment (assessment of alternative options).	
9	Drainage (carriageway drainage, crossing of watercourses, specific drainage requirements through high vulnerability areas).	
10	Construction (comparative ease of construction and traffic management).	
11	Comparative service conflicts (electricity, telecommunications, gas, broadband, cable TV, water, wastewater etc.).	
12	Comparisons on land & property (land take, land severance, land use, residential acquisitions, accommodation works requirements).	
	<b>Environmental Assessment Criteria (refer to Appendix A.2.2 for further detail)</b>	
13	Ecology.	
14	Soils and geology.	
15	Hydrogeology.	
16	Hydrology.	

No.	Item	✓
17	Landscape and visual.	
18	Archaeological, architectural, and cultural heritage.	
19	Material assets – agricultural.	
20	Material assets – non-agricultural.	
21	Air quality and climate.	
22	Noise and vibration.	
23	Human beings.	
24	Interrelationship considerations.	
	<b>Economy Assessment Criteria</b>	
25	Preparation of Option Comparison Estimates in line with TII CMM.	

## A2.5 Sample Option Selection Report

No.	Item	✓
0	<b>Executive Summary:</b> <ul style="list-style-type: none"> <li>• Summary of the Option Selection Report.</li> </ul>	
1	<b>Introduction &amp; Description:</b> <ul style="list-style-type: none"> <li>• Description of the Project including an overview of Project development to date.</li> <li>• Purpose of the Option Selection Report.</li> <li>• Project operational goals and design strategies.</li> </ul>	
2	<b>Project Need, Strategic Fit and Priority:</b> <ul style="list-style-type: none"> <li>• Strategic fit and priority of Project within Sanctioning Authority programme / policy.</li> <li>• Development policy - national, regional, and local (reference to policy and development plans).</li> <li>• Project specific need (transport demands, completion of inter-urban link, removal of national road through-traffic from urban bottlenecks etc.).</li> </ul>	
3	<b>Traffic Assessment &amp; Option Cross-section:</b> <ul style="list-style-type: none"> <li>• Description of the Traffic Modelling Report and agreed scope.</li> <li>• Initial selection of level of intervention required using incremental analysis.</li> <li>• Consideration of access strategy as part of the transport modelling.</li> </ul>	
4	<b>Constraints Study:</b> <ul style="list-style-type: none"> <li>• Description of natural constraints.</li> <li>• Description of physical constraints.</li> <li>• Description of external parameters.</li> </ul>	
5	<b>Consideration of Options:</b> <ul style="list-style-type: none"> <li>• Description of consideration of 'Do-Nothing', 'Do-Minimum', 'Traffic Management', and other options stating the reasons why such options are either feasible or not feasible.</li> </ul>	
6	<b>Stage 1 - Preliminary Options Assessment:</b> <ul style="list-style-type: none"> <li>• Description of options identified.</li> <li>• Findings from first public consultation including responses from public.</li> <li>• Engineering assessment.</li> <li>• Road Safety Impact Assessment.</li> <li>• Environmental assessment.</li> <li>• Economy assessment (Options Comparison Estimates).</li> <li>• Assessment matrix detailing engineering, environment, and economy.</li> <li>• Recommendation on refined number of alternative options to proceed to Stage 2.</li> </ul>	



No.	Item	✓
7	<p><b>Stage 2 - Project Appraisal Matrix:</b></p> <ul style="list-style-type: none"> <li>• Description of the refined number of alternative options.</li> <li>• Findings from second public consultation, if held.</li> <li>• Update of Options Comparison Estimate.</li> <li>• Common Appraisal Framework assessment.</li> <li>• Recommendation on a preferred option, including, where necessary, a statement justifying the selection of the option.</li> </ul>	
8	<p><b>Stage 3 - Preferred Option and Preparation of PABS:</b></p> <ul style="list-style-type: none"> <li>• Project Appraisal Balance Sheet (PABS) of the preferred option.</li> <li>• Summary of Road Safety Audit Stage F (Part 2).</li> <li>• Recommendation that referred option should form the basis of Phases 3.</li> </ul>	
	<p><b>Appendices:</b></p> <ul style="list-style-type: none"> <li>• Environmental Evaluation Reporting (Constraints and Alternative Options).</li> <li>• Summary of Public Consultations Feedback.</li> <li>• Road Safety Audit Stage F Report (Phase 1 &amp; 2).</li> <li>• Options Comparison Estimates (OCE).</li> <li>• Cost Benefit Analysis Reports (CBA).</li> <li>• Risk and value management.</li> <li>• Traffic Modeling Report.</li> <li>• TII Validation of OCE &amp; CBA.</li> </ul>	

## A2.6 Option Selection Peer Review - Outline of Key items for consideration

No.	Item	✓
	<b>PROCEDURAL ISSUES</b>	
1	Has the Project Execution Plan, including the Project Brief, been prepared and updated outlining need for the project?	
2	Has a Feasibility Report, if required, been completed?	
3	Have the Feasibility Working Costs (FWC) been prepared in accordance with the CMM?	
4	Has the Road Safety Impact Assessment (RSIA) been completed?	
5	Have all Principal Constraints been identified?	
6	Have the Principal Constraints within the Study Area been assessed from a Health & Safety perspective to identify any unacceptable risks?	
7	Is the Study Area large enough to cover all reasonable / feasible Options?	
8	Has the First Public Consultation been carried out?	
9	Have options suggested at the First Public Consultation been fully evaluated?	
10	If applicable, has a Second Public Consultation been carried out?	
11	If applicable, have options suggested at the Second Public Consultation, if held, been fully evaluated?	
12	Have the relevant Planning Authorities been notified of the options for the project?	
13	Have all the requirements of the three state Option Selection Process, outlined in the TII PAGs been complied with.	
14	Has a Value Engineering and Value Management exercise been carried out?	
15	Have all environmental effect types been considered in the consideration of alternatives?	
	<b>ALIGNMENT, ENGINEERING ISSUES</b>	
16	Has the Road Type and Cross Section been confirmed?	
17	Has the Design Speed for the project been confirmed?	
18	Have the Developed Route Options been amalgamated to create all possible Options?	
19	Is the alignment compatible with, and optimised for, the possibility of developing adjacent projects?	
20	Does the vertical alignment provide a smooth flowing profile consistent with the design speed?	

No.	Item	✓
21	Is the chosen route the optimum horizontal and vertical alignment?	
22	Does the chosen alignment conform with TII Objectives? e.g. to accommodate strategic traffic.	
23	Have the principal junctions and interchanges been assessed?	
24	Has the impact of local traffic and adequacy of local road network been assessed?	
25	Are major utility diversions required, and if so, what form do they take (e.g. diversions of live Bord Gais services, etc.) and what are the principal costs involved?	
26	What are the principal structures and has the alignment been optimised to minimise the number of structures?	
27	Has the vertical alignment been optimised for earthworks balance?	
28	Are there adequate watercourses for drainage purposes?	
29	Have flood levels in the relevant area been established?	
30	Has the "Constructability" of the chosen Option been evaluated? e.g. maintaining existing traffic flows, etc.	
	<b>ARCHAEOLOGICAL &amp; ENVIRONMENTAL ISSUES</b>	
31	Are there any NHA's or SAC's along the preferred option & have all options been evaluated?	
32	Has the Project Appraisal of the Route Options established any protected species along the chosen route?	
33	Is there any change in designation or proposed changes in relation to designated sites and protected areas?	
34	Has a detailed Archaeological & Cultural Heritage walkover and desktop study been carried out of the relevant Study Area?	
35	Does the preferred option impact on any recorded Archaeological & Cultural Heritage monuments or areas highlighted as having archaeological potential?	
36	Are there any Karst Areas within the study area?	
	<b>STATUTORY AUTHORITIES</b>	
37	Does the preferred option impact or traverse, operational or otherwise, a railway or railway lands and will new rail structures be required to facilitate the preferred option?	
38	If so have Irish Rail / CIE been consulted in relation to the preferred option?	
39	Have National Parks & Wildlife Services been consulted in relation to the preferred option?	
40	Have the Fisheries Board been consulted in relation to the preferred option?	

No.	Item	✓
41	Has the preferred option been forwarded to the relevant Planning Authorities for input into zoning and development of County Development Plans?	
42	Will the preferred option, or any required drainage works, traverse their Local Authority functional areas?	
43	Has a Preliminary Land Search been completed to establish principal ownership of the required lands?	

## A2.7 Phase 2 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 2 (Option Selection).
2. The Option Selection Report has been prepared in accordance with the TII Project Management Guidelines and submitted to Transport Infrastructure Ireland for your records.
3. The Option Selection Report Peer Review has been completed and signed off by the Peer Reviewers in accordance with the TII Project Management Guidelines. A copy of the signed Peer Review Report has been submitted to Transport Infrastructure Ireland for your records.
4. Option Comparison Cost Estimates have been prepared in accordance with the TII Cost Management Manual and submitted to Transport Infrastructure Ireland for your records.
5. The Preliminary Business Case has been prepared in accordance with the TII Project Appraisal Guidelines and demonstrates that the above referenced national road Project delivers value for money in accordance with the Public Spending Code. A copy of the Preliminary Business Case has been submitted to Transport Infrastructure Ireland for your records.
6. The Project Execution Plan has been updated and submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Progression of the above referenced national road Project from Phase 2 (Option Selection) to Phase 3 (Design and Environmental Evaluation) of the TII Project Management Guidelines.

Is mise le meas,

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*[Sponsoring Agency Director of Services]*

### A3.1 Principal Geometric Parameters Report (Sample Template)

Sample Principal Geometric Parameters Report for the Project mainline.

<b>Design Heading</b>	<b>Design Element</b>	<b>Design Requirement*</b>
<b>Road Type</b>	Road Type Road Menu Type Traffic Type	<i>All Purpose Road Type 2 Dual Carriageway Rural</i>
<b>Design Speed</b>	Mandatory Speed Limit Design Speed Alignment Constraint (Ac) Layout Constraint (Lc)	<i>100 km/h 100A km/h 12.000 12</i>
<b>Sight Distance</b>	Stopping Sight Distance Full Overtaking Sight Distance	<i>215m N/A</i>
<b>Horizontal Alignment</b>	Road Camber Superelevation Range Min. R (no superelevation) Desirable Minimum R 1-Step below Des. Min. R	<i>2.5% 2.5% &lt; S &lt; 7.0% 2040m 720m 510m</i>
<b>Vertical Alignment</b>	Desirable Minimum Crest K Desirable Minimum Sag K 1-Step Below Des. Min. K Absolute Minimum Vertical Curve length Desirable Max. Gradient Max. Gradient with Relaxation Minimum Gradient	<i>100 37 26 100m 4% 5% 0.5%</i>
<b>Cross-Section &amp; Headroom</b>	Cross-Section Headroom(Road over Road) Headroom (Road over Rail)	<i>Type 2 Dual C/way 5.30m 5.13m</i>
<b>Overtaking Value</b>	Overtaking Value	<i>N/A</i>
<b>Junctions</b>	Permitted Junction Types for Type 2 Dual C/Way	<i>Simple: NO Ghost Island: NO Left-in/Left-out: YES Roundabout: YES Compact Grade Separation: YES Grade Separation: NO</i>

### A3.2 Junction Strategy Report (Sample Template)

No.	Item	✓
1	<p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• Project description summarising preferred option corridor and road type selected for the mainline.</li> <li>• Provide a summary of the basis for selection of the road type for the Project mainline.</li> <li>• Principal function of proposed Project (e.g. inter-urban, town bypass etc.)</li> <li>• Statement of policy regarding access to national road Projects as outlined in TII's Policy Statement on Development Management and Access to National Roads in particular the requirement to maintain operating efficiency and carrying capacity of the mainline.</li> </ul>	
2	<p><b>Interface with existing Road Network:</b></p> <ul style="list-style-type: none"> <li>• List all existing public roads which are affected by the preferred option corridor from the start to end terminals of the Project mainline and confirm whether such roads are of national, regional or local road status.</li> <li>• Confirm the approximate distance between existing roads which are intersected by the Project as measured along the proposed mainline.</li> </ul>	
3	<p><b>Design Considerations:</b></p> <ul style="list-style-type: none"> <li>• Road type and permitted junction types as outlined in DN-GEO-03041.</li> <li>• Access control as outlined in TII Policy together with any Project specific policy (e.g. a primary access point to/from the Project and a nearby town).</li> <li>• In the case of dual carriageways, requirements in respect of crossing the central reserve.</li> <li>• Other design requirements such as the provision of tapers and slip lanes (both merging and diverging), splitter islands, visibility envelopes etc.</li> </ul>	
4	<p><b>Economics:</b></p> <ul style="list-style-type: none"> <li>• Provide a summary of all costs for various junction options Use traffic model to show impact of various junction options (including the non-provision of junctions) and use in Cost-Benefit Analysis.</li> </ul>	
5	<p><b>Proposed Junction Strategy:</b></p> <ul style="list-style-type: none"> <li>• Provide a summary of all proposed junctions along the Project from start to end terminus. Existing roads which are to be bridged or stopped up with no access to the mainline should also be included in the summary.</li> <li>• Where appropriate, outline any alternative junctions considered for a particular location (e.g. roundabout, compact grade-separation etc.) and confirm the reasons for selecting the junction as summarised above.</li> <li>• Where appropriate, provide a cost comparison of the alternative considered.</li> </ul>	
6	<p><b>Conclusions &amp; Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Confirm that junction strategy has been prepared having regard to exiting design standards and policy documents.</li> </ul>	

No.	Item	✓
	<ul style="list-style-type: none"> <li>• Confirm that the junction strategy as proposed is the most cost-effective solution in meeting access requirements for the Project.</li> <li>• Recommend that the proposed junctions as described above be approved.</li> </ul>	
7	<p><b>Appendices:</b></p> <ul style="list-style-type: none"> <li>• Drawings including:</li> <li>• Project map.</li> <li>• Existing road network.</li> <li>• Junction locations.</li> <li>• Junction layout plans.</li> <li>• Layout of alternatives considered.</li> <li>• Where appropriate traffic data including:</li> <li>• AADT of minor roads (e.g. to confirm AADT less than 1,000).</li> <li>• AADT of major road.</li> <li>• AADT of proposed junctions and confirmation that it is operating within standards.</li> </ul>	



### A3.3 Outline of Items to be considered when designing for Future Maintenance

Outline of Design Considerations for future maintenance shall include, but not be limited to, the following:

No.	Item	✓
1	<p><b>Road Pavement Materials:</b></p> <ul style="list-style-type: none"> <li>• Consider the whole life cost between various pavement materials.</li> <li>• Consider issues pertinent to the repair and replacement of localised failures.</li> <li>• Provide sufficient data about pavement design and construction to identify aspects likely to pose difficulty in future maintenance.</li> </ul>	
2	<p><b>Specialist Materials:</b></p> <ul style="list-style-type: none"> <li>• Identify where materials/products are of a non-standard or specialist nature and whether they have specialist maintenance requirements.</li> <li>• Confirm whether Local Authority or other maintenance crews require specialist training for such materials or products.</li> </ul>	
3	<p><b>Landscaped &amp; Planted Areas:</b></p> <ul style="list-style-type: none"> <li>• Confirm that proposed grassed and planted areas are of a size and nature to be effectively maintained.</li> <li>• Confirm that trees and large plants are positioned to avoid obstruction to visibility.</li> <li>• Consider the fully-grown nature of the proposed landscaping, particularly in respect of future maintenance.</li> </ul>	
4	<p><b>Drainage:</b></p> <ul style="list-style-type: none"> <li>• Consider the maintenance requirements for drainage proposals (e.g. slotted drains, median drains, over the edge drains etc.).</li> <li>• Confirm that proposed drainage features such as headwalls and interceptors are accessible for maintenance without the need for excessive traffic management.</li> <li>• Ensure that testing records are provided at construction stage (e.g. CCTV, Mandrill etc.) to confirm a fully functioning drainage system at Handover.</li> </ul>	

No.	Item	✓
5	<p><b>Safety Barriers:</b></p> <p>Consider whole-life cost of safety barrier systems including future maintenance/replacement.</p> <ul style="list-style-type: none"> <li>• Consider proposed safety barrier systems for consistency with adjacent/existing systems.</li> <li>• Confirm whether Local Authority or other maintenance crews require specialist training for the proposed safety barrier systems.</li> <li>• Confirm whether Local Authority will be required to maintain a stock of spare parts for ongoing maintenance.</li> <li>• Confirm whether proposed safety barrier systems have been designed so that damaged parts can be replaced easily.</li> </ul>	
6	<p><b>Traffic Management:</b></p> <ul style="list-style-type: none"> <li>• Consider whether routine maintenance will require specialist traffic management arrangements.</li> <li>• Consider proposed layout configurations to facilitate multiple routine maintenance activities under a single traffic management arrangement.</li> <li>• Consider whether traffic management arrangements required for routine maintenance will have an adverse impact on road surfaces.</li> </ul>	
7	<p><b>Maintenance Access:</b></p> <ul style="list-style-type: none"> <li>• Consider design of safe and convenient access for maintenance plant and personnel into the Project.</li> <li>• Ensure median and verge widths are of a sufficient width to facilitate temporary traffic management signage.</li> </ul>	
8	<p><b>Winter Maintenance:</b></p> <ul style="list-style-type: none"> <li>• Consider design of proposed surface course in terms of maintenance requirements and their consistency with adjacent Projects or other routes in the locality.</li> <li>• Consider requirement for the provision of a weather station or relocation of an existing weather station from existing national route.</li> <li>• Consider the requirement to protect the weather station and to provide access for maintenance without excessive traffic management.</li> <li>• Consider proposed junction layouts and locations in order to provide optimum maintenance techniques.</li> </ul>	

No.	Item	✓
9	<p><b>Boundary Treatment:</b></p> <ul style="list-style-type: none"> <li>• Consider design of boundary treatment to ensure that it is suitable for its environment, that it is suitable for existing ground conditions and that it requires little or no maintenance over its lifetime.</li> <li>• Ensure that boundary treatment will be accessible for maintenance / replacement.</li> </ul>	
10	<p><b>Intelligent Transport Systems (ITS):</b></p> <ul style="list-style-type: none"> <li>• Consider the location of ITS equipment to ensure it is protected and accessible without excessive traffic management.</li> <li>• Consider the provision of sufficient service ducts and access chambers for ITS equipment and ensure that records of their location are maintained.</li> </ul>	
11	<p><b>Signing &amp; Road Furniture:</b></p> <ul style="list-style-type: none"> <li>• Consider the design of signs, lighting standards and other upstanding road furniture to allow damaged poles, posts, columns etc. to be replaced easily.</li> </ul>	
12	<p><b>Flood Management:</b></p> <ul style="list-style-type: none"> <li>• Identify areas of high flood risk and provide for mitigation measures to be included in the Project as appropriate.</li> </ul>	
13	<p><b>Structures:</b></p> <ul style="list-style-type: none"> <li>• Consider design of safe and convenient access for maintenance plant and personnel.</li> <li>• Consider whole life costs of structures.</li> </ul>	
14	<p><b>Whole Life Costs</b></p> <ul style="list-style-type: none"> <li>• Undertake whole life cycle assessment for the project elements.</li> </ul>	
15	<p><b>Future Requirements</b></p> <ul style="list-style-type: none"> <li>• Consider design requirement for technologies such as autonomous vehicles.</li> </ul>	
16	<p><b>Electric Vehicles</b></p> <ul style="list-style-type: none"> <li>• Consider design requirement for electric vehicles (for example, fire fighting requirements, charging points).</li> </ul>	

### A3.4 Compulsory acquisition of land Mapping – outline of items to consider

The compulsory acquisition of land mapping shall include, but not be limited to, the following:

No.	Item	✓
1	Finalise the road geometry; horizontal, vertical and cross-section profiles for all mainline, side road, and junction alignments.	
2	Make provision for a 3.0m wide working space (measured from the edge of side slopes or from the edge of open drains, where provided).	
3	Take account of fencing requirements when determining the boundary line.	
4	Finalise the design of all drainage outfalls, culverts, headwalls (including provision to locate outside clear zone), oil and petrol Interceptors and attenuation ponds (including maintenance strips).	
5	Finalise the locations and extent of all accommodation works, including access tracks and underpasses, including associated ramps and drains, ensure that they have been properly designed to take account of existing topographical conditions. For access tracks in excess of 300 metres in length, allow for passing bays every 250 metres.	
6	Agree all service diversions with affected utility companies. Include sufficient lands for service diversions (e.g. 'build-outs' for cable stays, trenches for underground utilities etc.).	
7	Carry out a detailed land ownership search with the land registry (including online searches via the land registry website <a href="http://www.landdirect.ie">www.landdirect.ie</a> ).	
8	Check all rights-of-way (public and private), wayleaves and other burdens which may need to be included in the compulsory acquisition of land schedules.	
9	In the case of unregistered lands, make all reasonable enquiries (e.g. Checks with registry of deeds and with companies register, landowner interviews post notification on lands etc.,) to establish ownership.	
10	Confirmation by the project liaison officer of the accuracy or otherwise of the land ownership records with individual landowners.	
11	Identify all landholdings (i.e. holdings comprising two or more folios) and identify all severed lands necessary for inclusion in the land- take.	
12	Include sufficient land at tie-ins to provide adequate sight distance.	
13	Issue a letter to affected landowners to check accuracy of the compulsory acquisition of land schedules.	
14	Following completion of the environmental evaluation, include sufficient lands in the proposed land-take to ensure that the mitigation measures outlined in the Schedule of Environmental Commitments can be implemented.	
15	Avoid including unnecessary land-take (particularly house curtilage) in the compulsory acquisition of land documentation.	

No.	Item	✓
16	Allow for sufficient lands to be included at the cut/fill interface in order to avoid 'pinch points' during construction.	
17	Allow sufficient lands to be provided for the provision non-motorised user facilities, where required.	
18	Allow sufficient lands to be provided for the provision of large traffic signs, including foundations in verges and lateral clearances, particularly for signs located on the approach to grade- separated junctions and on roundabout splitter islands.	
19	Allow sufficient lands to be provided to meet, insofar as possible, the concept of forgiving roadsides and the provision of a clear zone adjacent to the road.	
120	In instances where it is proposed to include houses as 'unfit for human habitation ...', ensure that an appropriate certificate has been obtained from a suitably qualified Health Inspector together with a Certificate from an Engineer stating that the house cannot be rendered fit for human habitation at reasonable expense.	
21	Any lands that are only required temporarily for construction or other purposes, should be clearly identified as separate plots on the compulsory acquisition of land mapping and noted as temporary within the schedules.	
22	The extent of schedule 4 lands (land in respect of which it is proposed to prohibit, close, stop up, remove, alter, divert or restrict a means of direct access to or from the proposed protected road or motorway) which are not included within the compulsory acquisition of land boundary shall only extend to the nearest natural boundary of the folio adjacent.	

### A3.5 Design Peer Review – Outline of key Issues.

No.	Item	✓
	<b>Project Justification</b>	
1	Has the Project Brief been reviewed and updated?	
2	Has the Target Cost 1 and the Preliminary Total Scheme Budget been agreed?	
3	Has the Cost Benefit Analysis been updated?	
4	Have the key elements of the Project Appraisal Guidelines been addressed/completed?	
	<b>Road Type and Capacity</b>	
5	Has the proposed road type been determined having regard to the existence of potential future road type of adjacent sections of the corridor and any policy decisions of the overall corridor roadtype?	
6	Is the road type adequate for the possible long-term traffic flows?	
7	Is the road type selected justifiable on traffic grounds or on safety grounds?	
	<b>Junctions</b>	
8	Is the frequency of junctions excessive?	
9	Are the junctions unnecessarily serving non-national roads?	
10	Are the junctions appropriately sized to cater for traffic in the longer term?	
11	Is the junction strategy diluting or compromising the strategic function of the road?	
	<b>Horizontal Alignment</b>	
12	Is the horizontal alignment optimised with regard to key constraints? (poor ground, contaminated areas, residential/non-residential structures, archaeological sites, rivers, railways, etc.).	
13	Does the alignment lead to an excessive number of structures or junctions?	
14	Is the alignment compatible with, and optimised for, the possibility of developing adjacent Projects on the road corridor?	
15	Does the alignment travel adjacent to any railway line, and if so, has Iarnród Éireann been consulted?	
	<b>Vertical Alignment</b>	
16	Does the vertical alignment provide a smooth flowing profile consistent with the design speed?	
17	Is there a balance between earthworks material import and export and if not, has the alignment been optimised for the difference?	

No.	Item	✓
18	Where appropriate, has the vertical alignment been designed against maximum flood levels and has an appropriate safety margin been applied?	
	<b>Geotechnical Issues</b>	
19	Have all quarries within the area been considered? (licensed or unlicensed).	
20	If there is contaminated land, has the potential impact been fully considered?	
21	Has the extent of soft ground been identified and fully considered?	
22	Are there areas of karst, and if so, were measures considered to deal with karst?	
23	Has the earthworks been balanced in so far as is possible?	
24	Has the disposal of excess material, including peat, been fully considered including any requirements of relevant waste management legislation?	
25	Have all well and septic tanks been identified and dealt with?	
	<b>Drainage</b>	
26	Has OPW approval been obtained?	
27	Have flood levels been established?	
28	Have return periods been checked and has the % uplift for climate change been included?	
29	Should any section of the route require specific drainage measures, have these been fully designed?	
30	Have rights of way been included, where necessary, for maintenance to drains etc. outside the land take?	
31	Have adequate land take been provided for treatment measures and retention ponds?	
32	Have adjacent Local Authorities been contacted to coordinate the proposed drainage works downstream of the road Project?	
	<b>Structures</b>	
33	Is the aesthetic standard appropriate?	
34	For online improvement Projects, has the method of bridge construction been fully addressed?	
35	Have excessive skews or excessive spans been avoided?	
36	Is level of prescription of structure type and arrangement appropriate?	
37	Has a common structure type been adopted to the maximum extent possible?	
38	Is there an excessive number of structures provided for landowner access?	

No.	Item	✓
39	If there are any 'special structures', is the structures type appropriate and justifiable?	
40	Is the horizontal alignment leading to an excessive number of structures being required?	
41	If there are any railway structures, have these been agreed in principle with Iarnród Éireann?	
	<b>Archaeological and Environmental Issues</b>	
42	Have all TII Environmental Standards and Procedures, including Archaeology, been complied with?	
43	Are there any NHA's or SAC's within the preferred option corridor, and if so, has sufficient work been done to support the Project proceeding?	
44	Has the project development process and Option Selection Process carefully considered the potential of significant archaeological and environmental issues arising?	
45	Has sufficient archaeological investigation been carried out to support the Project proceeding as planned?	
46	Have the various environmental statutory agencies been consulted in sufficient detail to clearly establish Project requirements and effects?	
47	Are there any protected species affected by the route and have they been considered in sufficient detail, including cost of mitigation?	
48	Is there a definitive list of mitigation measures?	
49	Has a robust noise model been developed to support noise barrier provision decisions?	
50	Are all listed mitigation measures necessary, clear and definable?	
	<b>Statutory Authorities</b>	
51	If the project crosses operational (including dis-used but potentially operational) railway land, has such land been excluded from the compulsory acquisition of land?	
52	If the project is adjacent to, but does not cross a railway line, has Iarnród Éireann been consulted on railway implications?	
53	Has agreement in principle been reached with CIE/ Iarnród Éireann in relation to the project?	
54	Have consultations been carried out with the National Parks and Wildlife Services and their agreement in principle been obtained?	
55	Have consultations been carried out with the Inland Fisheries Ireland and their agreement in principle been obtained?	
56	Have consultations been carried out with other relevant Statutory Authorities and their agreement in principle been obtained?	



No.	Item	✓
57	Have consultations been carried out with the Emergency Services to determine need for lay-bys, observation platforms and any requirement for additional emergency access points to the Project?	
	<b>Landtake</b>	
58	Has the Project considered the land take requirements at structure locations to facilitate off-line construction where possible?	
59	Has the Project optimised the balance between acquisition of severed land and provision of access structures/roads and accommodation works?	
60	Has the Project considered the provision of access to severed portions of land to facilitate future use or resale?	
61	Where the Project crosses, or is adjacent to, a railway line, has the issue of compulsory acquisition of land for possible closure of level crossings been considered?	
62	Has the land take considered the possible location of a construction compound or compounds?	
63	Has the land take considered the need for temporary river or stream diversions for structure construction?	
64	Has the land take included for all land necessary to build any required boundary walls or fences including space for any foundations extending onto the non-road side of the boundary wall or fence?	
65	If a Motorway Project, has the land take included a strip of land (coloured grey on motorway Projects) outside the blue motorway designated lands for all the fence/wall construction along the designated boundary of the blue motorway area?	
66	Has the land take included all land necessary to build any accesses required, including re-grading of any existing accesses?	
67	Has the land take included for any possible watercourse re-grading that may be required, and for the construction of any outfall needs?	
68	Is the land take sufficient for any attenuation ponds that might be required?	
69	Have all the land plots to be acquired been referenced and included in the compulsory acquisition of land schedules?	
70	Have all sight lines for private accesses and minor roads been included in compulsory acquisition of land schedules?	
71	Have all lands required for accommodation works been included in the compulsory acquisition of land schedules?	
72	Have all lands required for service diversions been included in the compulsory acquisition of land schedules?	

No.	Item	✓
	<b>Interaction with Land Use Planning</b>	
73	Is the impact of adjacent land zonings consistent with the strategic transport function of the Project?	
74	Have any recent avoidable re-zonings impacted significantly on the land cost of the project?	

### A3.6 Outline of Items to be available for Peer Review

No.	Item	✓
1	Screening and scoping documentation.	
2	Principal Geometric Parameters Report (detail on bespoke design elements, if required).	
3	Detail of compliance or other with design standards including departures and relaxations incorporated into the design and their approval status.	
4	Consenting permits and licences (statutory bodies).	
5	Structures options reports.	
6	Transport Modelling Report (Cost Benefit analyses, if necessary).	
7	Junction Strategy Report.	
8	Managing Geotechnical Risk <ul style="list-style-type: none"> <li>• Preliminary Design Ground Investigation Report.</li> <li>• Geotechnical Risk Register.</li> <li>• Preliminary Design Geotechnical Design Report.</li> </ul>	
9	Vertical Alignment Justification Report.	
10	Draft Environmental Operating Plan, if necessary.	
11	<b>Details of Project design:</b> <ul style="list-style-type: none"> <li>• Layout, cross-section, level of intervention.</li> <li>• Access strategy (Junction Strategy Report).</li> <li>• Earthworks balance (Vertical Alignment Justification Report).</li> <li>• Drainage.</li> <li>• Pavement.</li> <li>• Services.</li> <li>• Maintenance.</li> <li>• Boundary Fencing Requirements.</li> <li>• Construction Requirements (land take for diversion).</li> <li>• Land use and Accommodation works.</li> <li>• Environmental mitigation.</li> <li>• Compulsory acquisition of land.</li> </ul>	
12	Road Safety Audit Stage 1.	
13	Value Decisions Tracking Register.	
14	Risk Management Strategy.	
15	Target Cost 1 & Preliminary Total Scheme Budget.	

### A3.7 Design Report (Sample Template)

The Design Report will include, but not be limited to, the following:

No.	Item	✓
	<p><b>Executive Summary</b></p> <ul style="list-style-type: none"> <li>Brief summary of the Design Report.</li> </ul>	
1	<p><b>Introduction &amp; Description</b></p> <ul style="list-style-type: none"> <li>Brief description of the Project including an overview of Project development to date.</li> <li>Purpose of the Design Report.</li> <li>Project operational goals and design strategies.</li> <li>Proposed construction procurement method (e.g. Design-Build).</li> <li>Summary of Option Selection Process including the evaluation of alternatives.</li> <li>Summary of peer review process, if completed.</li> </ul>	
2	<p><b>Identification of Need</b></p> <ul style="list-style-type: none"> <li>Strategic fit and priority within the National Road Programme.</li> <li>Road development policy - national, regional, and local.</li> <li>Project specific need (national road traffic demands, completion of interurban link, removal of national road through traffic from urban bottlenecks etc.).</li> </ul>	
3	<p><b>Transport Modelling, Road Type &amp; Safety</b></p> <ul style="list-style-type: none"> <li>Summary of findings of Transport Modelling Report.</li> <li>Confirmation of Project level of service requirements.</li> <li>Comparison with 'Do-Nothing' Scenario.</li> <li>Confirmation of year of opening and design Year.</li> <li>Forecast traffic flows for the design year.</li> <li>Selection of road type (based on 'Incremental Analysis' assessment).</li> <li>Summary of safety assessment from Project Appraisal Balance Sheet (PABS) per the TII Project Appraisal Guidelines.</li> <li>Summary of the Road Safety Audit Stage 1 Report, including the project Team response and audit team acceptance.</li> <li>Summary of Health &amp; Safety Risk Assessment of Project Design confirming that the Project can be constructed, operated and maintained in a safe manner.</li> </ul>	

No.	Item	✓
4	<p><b>Geometry (including Relaxations &amp; Departures)</b></p> <ul style="list-style-type: none"> <li>• Applicable technical standards (TII Publications).</li> <li>• Confirmation of calculation/determination of design speed.</li> <li>• Mainline cross section (dimensions per relevant road construction detail including side slopes and working space requirements).</li> <li>• Summary of horizontal alignments.</li> <li>• Summary of vertical alignments.</li> <li>• Reproduction of approved principal geometric parameters report.</li> <li>• Confirmation of stopping sight distance along the Project (including details of any verge or median widening required to achieve SSD).</li> <li>• For single carriageways, confirmation of Full Overtaking Sight Distance (FOSD) and calculation of overtaking value.</li> <li>• Summary of relaxations and departures for standards (including approvals, where necessary).</li> </ul>	
5	<p><b>Strategy for Junctions &amp; Side Roads</b></p> <ul style="list-style-type: none"> <li>• Overview of Junction Strategy for the Project (as per the Approved Junction Strategy Report).</li> <li>• Tabular Summary of side roads.</li> <li>• Tabular summary of geometric parameters for each side road.</li> <li>• Tabular summary of interchanges (slip lanes, roundabouts etc.).</li> <li>• Tabular summary of geometric parameters for each interchange.</li> </ul>	
6	<p><b>Ground Investigation, Soil Classification &amp; Earthworks Balance Optimisation</b></p> <ul style="list-style-type: none"> <li>• Overview of geotechnical conditions along the Project.</li> <li>• Tabular summary of ground investigation contract.</li> <li>• Overview of soil classification along the Project based on ground investigation contract.</li> <li>• Identification of areas of soft ground requiring infill and areas where additional acceptable material can be sourced within the land-take.</li> <li>• Tabular summary of earthworks balance optimisation.</li> </ul>	

No.	Item	✓
7	<p><b>Drainage, Structures &amp; Pavement</b></p> <ul style="list-style-type: none"> <li>• Drainage overview.</li> <li>• Summary of carriageway drainage (including tabular summary of drainage design parameters).</li> <li>• Summary of design of bridges and culverts (including a schedule of culverts).</li> <li>• Summary of any Project specific flood alleviation proposals necessary to neutralise the risk of Project runoff in flood sensitive areas.</li> <li>• Summary of any other drainage proposals (attenuation ponds, oil/petrol interceptors etc.).</li> <li>• Summary of principal structures on the Project (road, rail, river bridges etc.).</li> <li>• Summary of minor structures (culverts, accommodation underpasses etc.).</li> <li>• Where necessary, provide a justification for the provision of each structure.</li> <li>• Confirm that structural designs were referred to TII Structures section for comment and that these comments have been incorporated into the design.</li> <li>• Confirm that consents / approvals have been obtained where necessary (e.g. OPW Section 50 consents for crossing of watercourses, Iarnród Éireann Letter of Initial Acceptance for crossing of railways etc.).</li> <li>• Confirmation of pavement type (flexible, rigid, or composite)</li> <li>• Pavement design load (million standard axles) and design life (years).</li> <li>• Tabular summary of pavement design for mainline, side roads, slip roads, junctions and interchanges.</li> </ul>	
8	<p><b>Services, Land Use &amp; Accommodation Works</b></p> <ul style="list-style-type: none"> <li>• Overview of service conflicts along the Project.</li> <li>• Tabular summary of service conflicts for each of the principal service providers (ESB, telecom, Bord Gais etc.) together with a recommendation on diversion of services.</li> <li>• Summary of compulsory acquisition of land requirements for the Project.</li> <li>• Summary of land use, affected landowners and requirements to acquire residential properties and/or other buildings.</li> <li>• Tabular summary of proposed accommodation works including accesses, underpasses, access tracks etc.</li> </ul>	
9	<p><b>Cost Estimation</b></p> <ul style="list-style-type: none"> <li>• Summary of Base Cost and Total Scheme Budget (including the TSB for the Main Construction Contract element of the Project) determined in accordance with the TII Cost Management Manual.</li> <li>• Confirmation that a Risk Analysis Report has been prepared for the Project.</li> </ul>	

No.	Item	✓
10	<p><b>Economic Assessment</b></p> <ul style="list-style-type: none"> <li>• Where necessary, re-iterate the rationale for selecting this route if it did not generate the most economical Cost-Benefit Analysis results (Benefit to Cost Ratio) during the Option Selection Process in Phase 2.</li> <li>• Overview and tabular summary of results of Cost-Benefit Analysis carried out in accordance with the TII Project Appraisal Guidelines.</li> <li>• Confirmation that CBA results were reviewed by TII Strategic Planning Unit.</li> </ul>	
11	<p><b>Conclusions &amp; Recommendations</b></p> <ul style="list-style-type: none"> <li>• Confirmation that the Project will meet TII requirements and that the need for the Project has been established.</li> <li>• Confirmation that the Project as designed will be able to cater for forecast design year traffic volumes.</li> <li>• Confirmation that the Project will bring about a reduction in the frequency and severity of accidents.</li> <li>• Confirmation that the Project has been designed in accordance with applicable standards and in accordance with policy documents.</li> <li>• Confirmation that the Cost-Benefit Analysis has shown that the Project is economically viable and a worthwhile project to progress.</li> <li>• Recommendation that the Project as described in this Design Report be approved so that it will form the basis for the compulsory acquisition of land and statutory processes to follow.</li> </ul>	
12	<p><b>Appendices</b></p> <ul style="list-style-type: none"> <li>• Copy of approved Junction Strategy Report.</li> <li>• Copy of Road Safety Audit Stage 1 Report.</li> <li>• Copy of Preliminary Structures Reports together with approvals and consents as necessary.</li> <li>• Copy of approval of TII Project Appraisal Deliverables from TII Strategic Planning Unit.</li> <li>• Copy of outcome of Peer Review Process including copy of Project Team Response, if required.</li> <li>• Copy of Cost-Benefit Analysis Report.</li> <li>• Drawings: <ul style="list-style-type: none"> <li>○ 000: Departures.</li> <li>○ 000: Project Layout.</li> <li>○ 100: Geometry.</li> <li>○ 300: Fencing and Environmental barriers.</li> <li>○ 400: Safety Fencing.</li> <li>○ 500: Drainage.</li> </ul> </li> </ul>	

No.	Item	✓
12	<ul style="list-style-type: none"><li>• 600: Earthworks.</li><li>• 700: Pavement.</li><li>• 1000: Kerbs, Footways, and Paved Areas.</li><li>• 1200: Traffic Signs and Road Markings.</li><li>• 1300: Lighting.</li><li>• 1400: Electrical.</li><li>• 1500: Information and Communication Technology.</li><li>• 1700: Structures.</li><li>• 2700: Services and Accommodation Works.</li><li>• 3000: Additional Required Design Elements.</li></ul>	



### A3.8 Outline Briefs for Property Valuation Advisors

The Brief for Property Valuation Advisors shall include, but not be limited to, the following:

No.	Item	✓
1	Negotiate land agreements on behalf of the local authorities as part of the compulsory acquisition of land process, such negotiations to include meetings with land owners and/or their agents and to include way-leaves and rights-of-way as required.	
2	Consult with statutory bodies in matters relating to compulsory acquisition of land.	
3	Prepare valuations and compensation offers and assess compensation claims on behalf of the local authorities in accordance with the relevant TII, and other, circulars.	
4	Provide detailed breakdowns of monetary compensation which forms part of land agreements.	
5	Prepare reports for land agreements requiring the prior approval of Transport Infrastructure Ireland (typically for large value agreements as advised by the TII Land and Property Services section).	
6	Provide regular progress updates during the compulsory acquisition of land process of claims received, offers made, agreements reached, agreements outstanding etc.	
7	Advise the Project Manager in advance of compulsory acquisition of land of severed lands to be included in the compulsory acquisition of land schedule in lieu of reasonable access.	
8	Provide the Project Manager with expert advice dealing with land-related objections to the compulsory acquisition of land and participate in negotiations with landowners to seek a withdrawal of their objections, prior to or during the Statutory Processes.	
9	Provide expert advice on the nature, extent and cost of accommodation works required in order to minimise the impact of the Project on land holdings.	
10	Prepare a detailed land cost estimate prior to compulsory acquisition of land publication which will require the approval of the TII Land and Property Services section.	
11	Attend at meetings, prepare a brief of evidence and provide expert witness evidence as part of the statutory processes with respect to compulsory acquisition of land.	
12	Provide advice on serving of statutory notices (Notice to Treat & Notice of Entry).	
13	Participate in the risk assessment workshop to identify, assess and quantify the risk associated with Land & Compensation.	
14	Attend at meetings, provide expert advice in a timely manner on compulsory acquisition of land being referred to assessment / arbitration (Chartered Institute of Arbitrators per IFA/DOE/TII agreement and/or High Court Reference Committee).	

No.	Item	✓
15	Prepare all necessary reports including Précis of Evidence and unconditional offer and provide expert witness evidence at arbitration inquiries.	

### **A3.9 Outline brief for Legal Service Advisors with respect to compulsory acquisition of land issues**

The Brief for Legal Service Advisors with respect to compulsory acquisition of land issues shall include, but not be limited to, the following:

No.	Item	✓
1	Prepare all necessary public and statutory notices associated with compulsory acquisition of land processes.	
2	Liaise with landowner legal representatives and complete all land transfers to the ownership of local authorities as part of the compulsory acquisition of land process.	
3	Oversee the appointment of Barrister(s) for compulsory acquisition of land and property arbitration as agreed with TII.	
4	Prepare and attend at statutory processes associated with compulsory acquisition of land processes and instruct the Barrister on behalf of the local authorities.	
5	Prepare and attend at property assessments and arbitrations (both Chartered Institute of Arbitrators and High Court Reference Committee) and instruct the Barrister on behalf of the local authorities.	
6	Prepare evidence in defence of the local authorities in the event of claims for liability as part of the main contract (e.g. personal injury, damage to property etc.).	
7	Prepare land transfers to landowners as part of an approved land disposal strategy in accordance with Section 183 of the Local Government Act, 2001.	
8	Prepare wayleave agreements and right-of-way extents, as required, for individual landowners.	

### A3.10 Phase 3 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 3 (Design and Environmental Evaluation).
2. The Design Report has been prepared in accordance with the TII Project Management Guidelines and submitted to Transport Infrastructure Ireland for your records.
3. The Design Report Peer Review has been completed and signed off by the Peer Reviewers in accordance with the TII Project Management Guidelines. A copy of the signed Peer Review Report has been submitted to Transport Infrastructure Ireland for your records.
4. Environmental Deliverables and Statutory Process Documentation have been prepared, have undergone appropriate review and checking and meet the necessary quality standard for publication. Copies of the Environmental Deliverables and Statutory Process Documentation have been submitted to Transport Infrastructure Ireland for your records.
5. Target Cost 1 and Total Scheme Budget cost estimates have been prepared and approved in accordance with the TII Cost Management Manual and have been submitted to Transport Infrastructure Ireland for your records.
6. The Detailed Business Case has been prepared in accordance with the TII Project Appraisal Guidelines and demonstrates that the above referenced national road Project delivers value for money in accordance with the Public Spending Code. A copy of the Detailed Business Case has been submitted to Transport Infrastructure Ireland for your records.
7. [The Detailed Business Case has been reviewed by the Sanctioning Authority and the Sanctioning Authority has issued approval for the above referenced national road Project to proceed to publication of Statutory Orders. A copy of the Sanctioning Authority approval is attached to this letter.] or [The Detailed Business Case has been submitted to TII (as Sanctioning Authority for this Approval Point) at the same time as this Gate

Review Statement for TII approval to proceed to publication of Statutory Orders.]<sup>5</sup>

8. The Project Execution Plan has been updated and submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Progression of the above referenced national road Project from Phase 3 (Design and Environmental Evaluation) to Phase 4 (Statutory Process) of the TII Project Management Guidelines.

Is mise le meas,

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*[Sponsoring Agency Director of Services]*

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<sup>5</sup> Delete as appropriate

#### A4.1 Common Statutory Procedures

The following table outlines some common statutory processes that may be encountered during the development of a major national road Project and an outline of their legislative context. This appendix is not to be taken as a conclusive exposition of requirements and is in no way to be relied upon as a basis of advancing projects through respective statutory processes. The Project Manager should obtain legal advice, as necessary, when determining the appropriate form of statutory processes (and interrelationships between statutory processes) and advancing the Project through the statutory processes as errors or omissions can potentially jeopardise Project success.

Statutory Process	Legislative Context
<b>Foreshore issues</b>	<ul style="list-style-type: none"> <li>• Foreshore Acts 1933 (as amended).</li> <li>• Planning and Development Act, 2000 (as amended).</li> </ul>
<b>Development Consenting</b>	<ul style="list-style-type: none"> <li>• Planning and Development Act, 2000 (as amended).</li> <li>• Roads Act 1993 (as amended).</li> <li>• Various associated regulations (e.g. Planning and Development Regulations 2001 (as amended)) as prepared by the Irish legislature.</li> </ul>
<b>Consent to constructing a bridge over a railway</b>	<ul style="list-style-type: none"> <li>• Roads Act 1993 (as amended).</li> <li>• Railway Safety Act 2005 (as amended).</li> </ul>
<b>Consent to constructing a bridge over, or a tunnel under, a navigable waterway</b>	<ul style="list-style-type: none"> <li>• Roads Act 1993 (as amended).</li> <li>• Bespoke legislation relating to navigable waterways, cross border projects &amp;c.</li> </ul>
<b>Consent to constructing a bridge over a watercourse or modifying or relocating a watercourse, embankment or other works (Section 9, Section 47, Section 50)</b>	<ul style="list-style-type: none"> <li>• Arterial Drainage Act 1945 (as amended).</li> </ul>
<b>Toll Project</b>	<ul style="list-style-type: none"> <li>• Roads Act 1993 (as amended).</li> </ul>
<b>Compulsory Land Acquisition</b>	<ul style="list-style-type: none"> <li>• Transport Act 1944 (as amended).</li> <li>• Local Government Act 1960 (as amended).</li> <li>• Housing Act 1966 (as amended).</li> <li>• Planning and Development Act 2000 (as amended).</li> <li>• Roads Act 1993 (as amended).</li> </ul>
<b>Waste licensing</b>	<ul style="list-style-type: none"> <li>• Environmental Protection Agency Act 1992 (as amended)</li> <li>• Waste Management Act 1996 (as amended).</li> </ul>
<b>Water abstraction and discharge</b>	<ul style="list-style-type: none"> <li>• Local Government (Water Pollution) Act, 1977(as amended).</li> </ul>

Statutory Process	Legislative Context
<b>Harbour companies</b>	<ul style="list-style-type: none"> <li>• Harbours Act 1946 (as amended).</li> </ul>
<b>Regional Fisheries Board</b>	<ul style="list-style-type: none"> <li>• Fisheries Act 1980 (as amended).</li> </ul>
<b>Irish Aviation Authority</b>	<ul style="list-style-type: none"> <li>• Irish Aviation Authority Act 1993 (as amended).</li> <li>• Aviation Regulation Act 2001 (as amended).</li> </ul>
<b>Designation of road as a clearway</b>	<ul style="list-style-type: none"> <li>• Road Traffic Act 1961 (as amended).</li> </ul>
<b>TEN-T Network</b>	<ul style="list-style-type: none"> <li>• Regulation (EU) 1316/2013 &amp; 1315/2013</li> </ul>
<b>Project collaboration</b>	<ul style="list-style-type: none"> <li>• Local Government Act 2001 (as amended).</li> </ul>
<b>Environmental Matters (including derogation licencing, environmental appraisal, &amp;c.).</b>	<ul style="list-style-type: none"> <li>• Directive 2009/147/EC (conservation of wild birds)</li> <li>• Directive 79/409/EEC (Birds Directive).</li> <li>• Directive 92/43/EEC (Habitats Directive).</li> <li>• Planning and Development Act, 2000 (as amended).</li> <li>• Roads Act 1993 (as amended).</li> <li>• Directive 2000/60/EC (Water Framework Directive).</li> <li>• Directive 2011/92/EU (assessment of the effects of certain public and private projects on the environment).</li> <li>• Directive 2014/52/EU (assessment of the effects of certain public and private projects on the environment).</li> <li>• Directive 2006/118/EC (protection of groundwater against pollution and deterioration).</li> <li>• Water Services Acts 2007 (as amended).</li> <li>• National Monuments Act 1930 to 2014.</li> <li>• Heritage Act 1995 (as amended).</li> <li>• Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999 (as amended).</li> <li>• Directive 2008/50/EC (Air Quality Directive).</li> <li>• Directive (EU) 2016/2284 (reduction of national emissions of certain atmospheric pollutants). Refer also to Directive 2004/107/EC.</li> <li>• Directive 2001/81/EC (national emission ceilings for certain atmospheric pollutants).</li> <li>• Directive 2002/49/EC (Environmental Noise Directive).</li> <li>• Directive 96/61 (integrated pollution prevention and control).</li> <li>• Various associated regulations as prepared by the European Commission and Statutory Instruments as prepared by Irish legislature.</li> </ul>
<b>Major Accident Hazards</b>	<ul style="list-style-type: none"> <li>• Directive 2012/18/EU (control of major-accident hazards involving dangerous substances).</li> </ul>

#### A4.2 Outline of Engineer's Report recommending extent of land acquisition boundary

The Engineer's Report, certifying that certain lands are necessary and sufficient for the purpose of constructing and maintaining the proposed road shall include, but not be limited to, the following:

No.	Item	✓
1	An outline of the total number of proposed land acquisitions as described in the land acquisition documentation.	
2	An outline of the total number of extinguishments of public rights-of-way as described in land acquisition documentation.	
3	<p>Justification for acquiring the lands compulsorily to include, inter alia, the following:</p> <ul style="list-style-type: none"> <li>• It will secure the acquisition of all the lands required;</li> <li>• It will provide objectors to the Project (both compulsory acquisition of land and extinguishments of rights-of-way) with a forum at which they can outline their objections;</li> <li>• It will facilitate the acquisition of the lands within a reasonable timescale;</li> <li>• It will afford an arbitration forum to assess compensation payable;</li> <li>• It will permit the local authority to plan a programme for the Project confident in the knowledge that the lands required will be available;</li> <li>• It will permit the local authority to acquire proper title to unregistered lands;</li> <li>• It will facilitate the implementation of the relevant Development Plan(s).</li> </ul>	
4	<p>Include copies or relevant extracts of the following documents in support of the Project:</p> <ul style="list-style-type: none"> <li>• Relevant provisions of Policy documentation;</li> <li>• Relevant Provisions of the County / City Development Plan together with any other local plans or policy documents;</li> <li>• The Project Appraisal (Business Case) &amp; Option Selection Report;</li> <li>• The Project Design Report;</li> <li>• Planning Report of each Local Authority, within whose functional area the Project is located, certifying that the Project is in accordance with the proper planning and sustainable development of the functional area and that it gives effect to and facilitates the implementation of the relevant development plan.</li> </ul>	
5	Confirmation that the lands as outlined in the documentation are necessary, sufficient, and suitable for the Project to which the proposed compulsory acquisition of land relates.	
6	A recommendation that the lands be acquired by way of statutory compulsory acquisition of land processes.	



### A4.3 Outline of items to be considered in advance of the Oral Hearing

Items to be considered in advance of the Oral Hearing shall include, but not be limited to, the following:

No.	Item	✓
	<b>Preparation of Evidence</b>	
1	Ensure that all personnel representing the Sponsoring Agency at Oral Hearing have sufficient prior experience and/or have attended an expert witness course.	
2	Project Manager to ensure that Engineer's Brief of Evidence is prepared.	
3	Project Manager to prepare a written response to all objections received in relation to the proposed compulsory acquisition of land and the environmental evaluation reporting.	
4	Relevant environmental specialists to prepare a written response to all objections and submissions received in relation to the environmental evaluation reporting.	
5	Project Manager shall ensure that all relevant standards, guidelines and policy documents referenced in the responses to objections are available at the Oral Hearing for reference, if necessary, during cross-examination.	
6	The Legal Advisor shall ensure that all personnel who give evidence on behalf of the Sponsoring Agency prepare a brief of evidence.	
7	The Legal Advisor shall ensure that briefs of evidence are clear, concise, factual, unequivocal, and are consistent with each other.	
8	The Legal Advisor shall convene at least one meeting or 'workshop' prior to the Oral Hearing to discuss and agree the Sponsoring Agency presentation of evidence, including responses to submissions and objections.	
	<b>In Advance of the Oral Hearing</b>	
9	The Project Manager will ensure that appropriate information technology equipment and utilities are available at the proposed venue and will ensure that all necessary equipment is commissioned and operational in advance of the Oral Hearing. This will include appropriate audio-visual equipment, appropriate mobile data communications, appropriate information technology equipment (for example printers and data storage), and appropriate telecommunication equipment and services. The Project Manager shall ensure that appropriate meeting facilities, and the like, are available at the venue.	
10	The Project Manager shall endeavor to meet with all objectors to the Project to discuss their concerns and examine the possibility of withdrawing objections.	
11	The Project Manager shall include any additional commitments given to secure the withdrawal of objections in the Schedule of Environmental Commitments to be given to the to An Bord Pleanála.	
12	The Project Manager shall prepare a record of all meetings and correspondence with landowners from the time of the publication of the preferred option corridor up to the Oral Hearing.	

No.	Item	✓
13	The Project Manager shall ensure that all copies of documentation comprising the development application documentation submitted to An Bord Pleanála, together with all subsequent correspondence between An Bord Pleanála and the Sponsoring Agency (including objections and submissions) is available for inspection for at least 7 days prior to the Oral Hearing.	
14	An Bord Pleanála may request additional information prior to the Oral Hearing and where such a request is made, copies of this additional information shall also be made available for inspection as outlined above.	
15	The Project Manager shall arrange for a senior member of the Project Team/NRO/PO to be available to meet with objectors immediately prior to and during the Oral Hearing with a view towards securing further withdrawals of objections.	
16	The Project Manager shall arrange for notices to be erected on site outlining the nature and extent of the proposed extinguishments of public rights of way (refer to Roads Act 1993)	
17	One member of the Sponsoring Agency team shall ensure that proof of delivery of all notices to prescribed bodies and affected landowners is prepared. (Note if notices are sent by registered post, An Post provides a free Proof of Delivery service through its website <a href="http://www.anpost.ie">www.anpost.ie</a> ).	
	<b>At the Oral Hearing</b>	
18	The Legal Advisor shall agree the order of evidence with An Bord Pleanála.	
19	Information made available for inspection prior to the Oral Hearing should also be displayed during the Oral Hearing.	
20	The Project Manager shall prepare responses to queries raised during the Oral Hearing.	
21	One member of the Project team should be in charge ensuring that display material (including display boards etc.) is available for inspection in a prominent location during the Oral Hearing.	
22	Copies of all Briefs of Evidence should be made available for An Bord Pleanála, objectors and members of the public present.	

#### A4.4 Outline of information to be contained in Engineer's Brief of Evidence

The Engineer's Brief of Evidence shall be concise and avoid repeating unnecessarily information already contained within the published Project documentation. As with all Briefs of Evidence, the Engineers Brief of Evidence shall respond to all relevant submissions / objections. The Engineer's Brief of Evidence may include, but should not be limited to, the following:

No.	Item	✓
1	Introduction (Name, qualifications and experience of the person or persons reading the brief of evidence).	
2	Project Description.	
3	<b>Identification of Need:</b> <ul style="list-style-type: none"> <li>• Road policy at EU, National, Regional, and Local Level;</li> <li>• Specific need (e.g. traffic volumes).</li> </ul>	
4	<b>Consideration of Alternatives:</b> <ul style="list-style-type: none"> <li>• Summary of Option Selection Process.</li> <li>• Overview of non-statutory public consultation.</li> <li>• Overview of statutory consultation process (if applicable).</li> </ul>	
5	<b>Design Criteria for the proposed development:</b> <ul style="list-style-type: none"> <li>• Traffic assessment &amp; cross-section.</li> <li>• Road geometry (horizontal &amp; vertical alignments etc.).</li> <li>• Structures including pylons and gantries.</li> <li>• Pavement.</li> <li>• Geotechnical (ground investigation Data and earthworks balance).</li> <li>• Drainage design (carriageway, outfalls, attenuation, etc.).</li> <li>• Junctions, side roads &amp; interchanges;</li> <li>• Minor &amp; ancillary works (incl. accommodation works, utilities, lighting, property, safety, access control etc.).</li> <li>• Bespoke design elements.</li> </ul>	
6	<b>Economic Assessment:</b> <ul style="list-style-type: none"> <li>• Confirmation of Total Scheme Budget.</li> <li>• Summary of results of Cost-Benefit Analysis.</li> </ul>	
7	<b>Environmental Evaluation:</b> <ul style="list-style-type: none"> <li>• Confirm the necessity or otherwise to prepare an EIAR / EAR;</li> <li>• Outline of experts who will present evidence under various environmental headings;</li> <li>• Confirm that a Schedule of Environmental Commitments was prepared.</li> </ul>	

No.	Item	✓
8	<b>Compulsory land acquisition and extinguishment of public rights-of-way</b> <ul style="list-style-type: none"><li>• Summary of land acquisition (total land-take, number of affected properties etc.);</li><li>• Summary of each extinguishment of public right-of-way and how the public right-of way-will be re-established once the Project is in place.</li></ul>	
9	Conclusions (confirmation that the Project as proposed is the best option and confirmation that the lands required for it are necessary and sufficient).	

#### A4.5 Outline of items for Potential Future Audit

The Phase 4 information to be retained for potential future audit will include, but not be limited to, the following:

No.	Item	✓
1	Where required, copy of agreement between two or more Local Authorities as per Section 85 of the Local Government Act, 2001.	
2	A record of the Sanctioning Authority's and Sponsoring Agency's decision to proceed with the Statutory Processes.	
3	Where applicable, a copy of the decision of An Bord Pleanála directing that an EIA, AA be carried out.	
4	Copy of TII approvals and approval to proceed with publication of the compulsory acquisition of land documentation and/or environmental evaluation documentation (Project Review 4 record).	
5	Where applicable, TII approval of the application fee to An Bord Pleanála in respect of Strategic Infrastructure Development.	
6	Copies of all public notices and notices to affected landowners and statutory bodies as part of the compulsory acquisition of land processes and/or environmental evaluation processes.	
7	Copies, where applicable, for each affected Local Authority, of the Part 8 Environmental Assessment Reports together with extracts of the minutes of each council meeting where the Part 8 reporting was noted.	
8	Copy of the Engineer's Report confirming that the lands required for the Project are necessary, suitable, and sufficient and recommending publication of the land acquisition documentation.	
9	Copy of all Chief Executive's Orders sanctioning the publication of the land acquisition documentation and/or environmental evaluation documentation.	
10	Record of the Oral Hearing, including notification from the Board, dates, duration etc.	
11	Copy of the decision of the Board to confirm, confirm with modifications or refusal to confirm the compulsory acquisition of land or environmental evaluation documentation.	
12	Copy of Property Valuation Advisors Land & Property Cost Estimate as verified by TII.	

#### A4.6 Phase 4 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 4 (Statutory Process).
2. The Project has been approved by the relevant planning authority and copies of the planning approval and land acquisition approval have been submitted to Transport Infrastructure Ireland for your records.
3. Target Cost 2 and Total Scheme Budget cost estimates have been prepared and approved in accordance with the TII Cost Management Manual and have been submitted to Transport Infrastructure Ireland for your records.
4. The Detailed Business Case has been updated, if required, in accordance with the TII Project Appraisal Guidelines and demonstrates that the above referenced national road Project continues to deliver value for money in accordance with the Public Spending Code. A copy of the updated Detailed Business Case has been submitted to Transport Infrastructure Ireland for your records.
5. [The updated Detailed Business Case has been reviewed by the Sanctioning Authority and the Sanctioning Authority has issued approval for the above referenced national road Project to proceed to commencement of land acquisition. A copy of the Sanctioning Authority approval is attached to this letter.] or [The Detailed Business Case has been submitted to TII (as Sanctioning Authority for this Approval Point) at the same time as this Gate Review Statement for TII approval to proceed to commencement of land acquisition.]<sup>6</sup>
6. The Project Execution Plan has been updated and submitted to Transport Infrastructure Ireland for your records.

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<sup>6</sup> Delete as appropriate

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Procurement of Technical Advisors to progress the above referenced national road Project through Phases 5 to 7 inclusive of the TII Project Management Guidelines<sup>7</sup>; and
2. Progression of the above referenced national road Project from Phase 4 (Statutory Process) to Phase 5 (Enabling and Procurement) of the TII Project Management Guidelines.

Is mise le meas,

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*[Sponsoring Agency Director of Services]*

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<sup>7</sup> Delete if not applicable

### A5.1 Outline of items for consideration as part of Review of Development Application Documentation

	Item	✓
1	Health & Safety – The Project can be constructed, operated and maintained within the Lands Made Available (LMA) to the Contractor?	
2	Any lands with specific agreements attached that may impact on construction?	
3	Road Geometry - sufficient curvature, cross-falls, gradients and sight distances (SSD & FOVD) are provided throughout?	
4	Drainage – sufficient lands available for outfalls and attenuation of runoff from the Project?	
5	Road Type – cross-section as proposed remains adequate for projected traffic flows and can be accommodated within LMA?	
6	Earthworks – cuttings and embankments. Any limitations imposed on cuttings and embankments (e.g. by the Competent Authority) can be adequately accommodated within the LMA?	
7	Junctions, interchanges & private accesses – in compliance with design standards and approved strategy for junctions and sufficient sight distance (sight visibility triangle) is available, particularly at interface with existing road network?	
8	Services – all proposed services (e.g. cable stays) can be accommodated within LMA?	
9	Road Safety Audit Stage 1– The recommendations of the Safety Audit Team can be implemented within the LMA?	
10	Structures – all proposed structures, including associated temporary works, can be constructed and maintained within LMA?	
11	Schedule of Environmental Commitments – the mitigation measures, as approved by the Competent Authority, (e.g. Earth Bund Noise Barriers) can be constructed within the LMA?	
12	Mitigation Measures as approved do not impact on the design of the Project in an adverse way (e.g. additional landscaping impacting on sight distances)?	
13	All conditions imposed by the Competent Authority in approving the Project can be incorporated into the Project within the LMA?	
14	CPO Lands – any CPO lands, which are not being made available for the purpose of constructing the Project (e.g. lands being transferred to private ownership), are removed from the LMA?	
15	Ensure lands are unoccupied and available for use, notwithstanding the fact that they have been compulsorily acquired?	



**A5.2 Outline of items to be considered as part of preparation of Enabling Works Contracts – Service Diversions, Fencing, and Hedge Clearing**

	Item	✓
1	Carry out necessary liaison with utility companies and other service providers (e.g. Electricity, telecommunications, water, wastewater, gas, cable, broadband etc.).	
2	Review mapping and records and conduct surveys as necessary to establish nature and extent of services affected by the Project.	
3	Undertake design of civil engineering works requirements to divert existing services in order to avoid conflict with the proposed Project while taking cognisance of possible design innovations (e.g. structure inversion) during the tender process.	
4	Prepare necessary tender documents in line with approved procurement procedure.	
5	Undertake a tender process and award the contract in accordance with the specified award criteria.	
6	Ensure that the lands necessary to carry out the service diversions are available to the contractor either by agreement or by serving Notice of Entry.	
7	Appoint PSCS, prepare method statements and notify HSA in accordance with H&S requirements.	
8	Prepare As-built Drawings for incorporation into the tender documents for the Main Roadworks Contract as Relevant. Background Information.	
9	Fencing – prepare mapping and set-out data for fence line.	
10	Fencing & hedge clearing – ensure that Notice of Entry has been served to allow for complete segregation of the LMA from adjoining lands.	
11	Fencing & Hedge Clearing - PLO Liaison with affected landowners regarding livestock and crop removal prior to fencing / hedge clearing.	
12	Fencing & Hedge Clearing – PLO to ensure that reasonable access for landowners is maintained to severed lands.	

### A5.3 Outline of items to be considered as part of preparation of Enabling Works Contracts – Archaeological Works

	Item	✓
1	Prepare necessary tender documents in line with approved procurement procedure to include the requirements outlined hereunder.	
2	Undertake a tender process and award the contract in accordance with the specified award criteria.	
3	Application for Ministerial Directions/Section 26 Licences (as appropriate) in advance of stage (i) - (iv) services.	
4	Stage (i) survey services – develop proposals as necessary for archaeological surveys to include: underwater, architectural and built heritage, townland boundaries, topographical, site specific metal detector, geophysical and aerial surveys.	
5	Stage (i) archaeological investigation works - develop proposals as necessary for investigation works to include: Standard test excavation, site specific test excavation by hand and test excavation in wetland.	
6	Stage (i) reporting – prepare reports on all works (survey services and archaeological excavation works).	
7	Stage (i) exclusion areas to be identified and prepared.	
8	Stage (ii) pre-excavation services – preparation of excavation areas.	
9	Stage (ii) pre-excavation services – specifications for each site to be developed by the Sponsoring Agency.	
10	Stage (ii) pre-excavation services – develop method statements for stage (iii) excavations.	
11	Stage (ii) pre-excavation services – obtain Ministerial directions / licenses as necessary.	
12	Stage (iii) excavation services.	
13	Project Archaeologist to advise Project Manager and submit agreed proposal for construction monitoring or non-requirement for monitoring to National Monuments Service and seek their written agreement.	
14	Stage (iv) post-excavation and dissemination services.	

**A5.4 Outline of items to be considered as part of preparation of Enabling Works Contracts – Topographical Proof Surveys**

	Item	✓
1	Prepare necessary tender documents in line with approved procurement procedure to include the requirements outlined hereunder.	
2	Survey to be comprised of a proof or validation of previous topographical surveys and/or new or additional surveys required (e.g. to take account of changes to LMA, revised alignments etc.).	
3	Undertake a tender process and award the contract in accordance with the specified award criteria. Confirm that the necessary insurances, including professional indemnity insurance, are in place prior to award of contract.	
4	Establish ground control in easting, northing and reduced level with permanent ground markers to specified requirements. Prepare a control report to confirm control is within specified tolerances.	
5	Undertake ground survey to specified grid density to generate the digital terrain model (DTM).	
6	Prepare survey of other features as specified including buildings/structures, boundaries, roads and tracks, street furniture, water and drainage features, slopes and earthworks features and woods, trees and recreation areas.	
7	Deliverables – preparation of 3-D string DTM for incorporation into software packages as specified (e.g. ACAD, MX Road etc.).	
8	Deliverables – verification drawings to specified scale, symbols, legend and text.	
9	Deliverables – survey report to include survey methodology, control details, data processing methodology, confirmation of accuracy and tolerances permitted and achieved, and demonstrable verification of all survey data.	

### A5.5 Outline of items to be include as Relevant Background Information

	Item	✓
1	Information Drawings – including location plans, land acquisition maps	
2	Environmental evaluation reporting including the Schedule of Commitments & ameliorative measures and any conditions imposed by the Competent Authority.	
3	If mandatory EIA is not required, copy of Environmental Report together with all associated documentation.	
4	The design report and plans and profiles of mainline, side roads and interchanges.	
5	Service diversions – as built drawings.	
6	Ground investigations – factual geotechnical reports (preliminary, detailed, additional).	
7	Topographical survey data – Digital Terrain Model, control stations, proof surveys etc.	
8	Archaeological data - results of intrusive and non-intrusive surveys, and any other available reports.	
9	Information on planning applications.	
10	Land acquisition orders, maps & schedules.	
11	Road Safety Audit Reports (Stage F & Stage 1).	
12	Drainage data – design, carriageway drainage, outfalls, attenuation.	
13	Approvals – OPW Section 50 consents, TII Structures Approvals, CIE Railway Approvals.	
14	Preliminary Health & Safety Plan.	

## A5.6 Outline of Drawings to be included in the Contract

The outline of drawings to be included in the Contract shall include, but not be limited to, the following:

No.	Provision	✓
1	<p><b>Drawings:</b></p> <ul style="list-style-type: none"> <li>• 000: Departures.</li> <li>• 000: Project Layout.</li> <li>• 100: Geometry.</li> <li>• 200: Site Clearance.</li> <li>• 300: Fencing and Environmental barriers.</li> <li>• 400: Safety Fencing.</li> <li>• 500: Drainage.</li> <li>• 600: Earthworks.</li> <li>• 700: Pavement.</li> <li>• 1000: Kerbs, Footways, and Paved Areas.</li> <li>• 1200: Traffic Signs and Road Markings – TII Approved.</li> <li>• 1300: Lighting.</li> <li>• 1400: Electrical.</li> <li>• 1500: Information and Communication Technology.</li> <li>• 1700: Structures.</li> <li>• 2700: Services and Accommodation Works.</li> <li>• 3000: Additional Required Design Elements.</li> </ul>	
2	<p><b>Standard Drawings Supplied to each Tenderer:</b></p> <p>To include any contract specific standard details prepared for the contract.</p>	
3	<p><b>Drawings brought into the Contract by reference:</b></p> <p>To include the TII Standard Construction Details (SCDs) and any other Standard Details (e.g. UK Highway Construction Details) required for the Contract.</p>	
4	<p>Schedule of Environmental Commitments Requirements.</p>	
5	<p><b>Other:</b></p> <ul style="list-style-type: none"> <li>• Traffic Management Plan.</li> <li>• Lands Made Available by the Contracting Authority.</li> <li>• References &amp; Co-ordinates for the design of the Works.</li> <li>• Landowner Reference numbers (CPO).</li> <li>• Archaeological Sites / Areas for Archaeological Monitoring and exclusion zones.</li> <li>• &amp;c.</li> </ul>	

### A5.7 Tender Report (Sample Template)

The following outlines items that should be included and detailed as part of the Tender Report. However, this is not to be taken as a conclusive exposition of requirements, Tender Reports prepared by the Sponsoring Agency / Contracting Authority shall comply with obligations and requirements deriving from applicable procurement legislation (for example, *S.I. No. 284/2016 - European Union (Award of Public Authority Contracts) Regulations 2016 &c.*).

Please note that some of the following provisions will apply only to Design Build projects. The Tender Report shall include, but not be limited to, the following provisions:

No.	Provision	✓
1	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• General overview of the Project Works requirements.</li> <li>• Project particulars including Contracting Authority, Contracting Authority's Representative, Contract Type, procurement process.</li> <li>• Summary of the tender process including pre-qualification, tender period, consultation meetings, facilitation meeting, uncorrected tenders.</li> </ul>	
2	<p><b>Overview of Tenders Received</b></p> <ul style="list-style-type: none"> <li>• Confirmation of tenders received on or before the closing date (including confirmation of compliance with local authority tender opening procedure, if applicable).</li> <li>• Summary of tender disqualifications, if any and reasons for disqualification.</li> <li>• Confirmation of compliant tender submitted.</li> <li>• Confirmation of tender documentation received including form of tender, pricing document/bill of quantities, and information required in the Instructions to Tenderers.</li> <li>• Confirmation of receipt of consolidated proposals in accordance with the Instructions to Tenderers.</li> </ul>	
3	<p><b>Assessment of Tenders Received</b></p> <ul style="list-style-type: none"> <li>• Confirmation that an assessment has been carried out on whether any grounds for exclusion apply.</li> <li>• Confirmation that no qualified tenders or equivocal statements were received, and where applicable, confirmation that the procedure for dealing with qualified tenders or equivocal statements as outlined in the Instructions to Tenderers was complied with.</li> <li>• Confirmation that all tenders received were as designated by the Contractor.</li> <li>• Where applicable, confirmation of process for dealing with non-compliant tenders was followed as outlined in the Instructions to Tenderers.</li> <li>• Assessment to examine whether abnormally low tenders were submitted and if applicable, details of breakdown of rates and prices and/or details of any adjustments to rates and prices.</li> <li>• Overview of comparative cost of tenders, calculated in accordance with the Instructions to Tenderers.</li> <li>• Confirmation of information submitted including form of tender and schedule and other information required as outlined in the Instructions to Tenderers.</li> </ul>	

No.	Provision	✓
	<ul style="list-style-type: none"> <li>• Comparison of breakdown of tender totals submitted with the pricing document / bill of quantities with sensitivity analysis based on the average for all tenders.</li> <li>• Confirmation that preliminaries and mobilisation costs do not exceed the proportion of the tender sum as stated in the preamble to the pricing document / bill of quantities.</li> <li>• Details of arithmetical checks on tenders including independent arithmetical checks.</li> <li>• Summary of assessment of tenderers including confirmation of tenderer who submitted lowest comparative cost of tender.</li> <li>• Confirmation that a post-tender meeting was held between the Contracting Authority and the tenderer who submitted lowest comparative cost of tender.</li> <li>• Comparison of lowest comparative cost tender with pre-tender cost estimate.</li> </ul>	
4	<p><b>Assessment of Consolidated Outline Proposals / Conceptual Design Proposals of the Lowest Comparative Cost Tender</b></p> <ul style="list-style-type: none"> <li>• Confirmation that the conceptual design proposals comply with the Works requirements and do not vary substantially from the consolidated outline proposals.</li> <li>• Summary of Contracting Authority response to consolidated outline proposals and any comments or observations by the Contracting Authority to the conceptual design proposals.</li> <li>• Confirmation that applications for Departures from Standards submitted as part of the Consolidated Outline Proposals have been approved by TII and that no additional Departures are included in the conceptual design proposals.</li> <li>• Confirmation that Design &amp; Check Certificates as required by the Instructions to Tenderers have been satisfactorily submitted.</li> <li>• Confirmation that Stage 1 Road Safety Certificates as required by the Instructions to Tenderers have been satisfactorily submitted.</li> </ul>	
5	<p><b>Assessment of Other Information to be submitted with the Tender as required by the Instructions to Tenderers</b></p> <ul style="list-style-type: none"> <li>• Confirmation of the provision of a form of undertaking to provide a performance bond.</li> <li>• Confirmation of the provision of a form of undertaking to provide a parent company guarantee.</li> <li>• Confirmation of the provision of a form of undertaking [Project Supervisor for the Design Process (PSDP) and Project Supervisor for the Construction Stage (PSCS)].</li> <li>• Confirmation of written confirmation from the tenderer that it has consulted with or endeavored to consult with relevant third parties including authorities, utilities (public and private) and other service providers.</li> <li>• Confirmation of receipt of proposed execution methods including traffic management proposals.</li> <li>• Confirmation that conceptual design proposals are located entirely within the Lands Made Available by the Contracting Authority together with any clarifications from the tenderer where some or all of the design proposals are not within Lands Made Available.</li> </ul>	

No.	Provision	✓
	<ul style="list-style-type: none"> <li>• Confirmation of receipt of an outline quality plan which complies with the requirements of the Instructions to Tenderers.</li> <li>• Identification of key personnel including site staff, designers, checkers and safety auditors. Specialist staff including archaeologists and other environmental staff required to be in attendance. Nominated sub-contractors.</li> </ul>	
6	<p><b>Conclusions &amp; Recommendations</b></p> <ul style="list-style-type: none"> <li>• Confirmation of receipt and assessment of all tenders.</li> <li>• Confirmation on number of disqualified tenders, if any.</li> <li>• Summary of corrections made to comparative cost of tenders, if any</li> <li>• Confirmation of the tenderer who submitted the lowest comparative cost of tender and that the tender was submitted in accordance with the Instructions to Tenderers.</li> <li>• Confirmation that the conceptual design submitted by the lowest comparative cost tenderer represents a reasonable response to the Works requirements.</li> <li>• Confirmation that the lowest comparative cost tenderer is competent to fulfil the role of PSDP and PSCS.</li> <li>• Recommendation that the lowest comparative cost tenderer be appointed subject to submitting all information and meeting all qualifying criteria required by the Contract in the amount of the corrected comparative cost of tender excluding VAT.</li> </ul>	
7	<p><b>Items for inclusion as Appendices in the Tender Report</b></p> <ul style="list-style-type: none"> <li>• Copy of all notices (PIN &amp; Contract) in newspaper, e-tenders and OJEU.</li> <li>• Copy of notices sent to tenderers identifying, in ascending order, the uncorrected comparative cost of tenders received on or before the closing date.</li> <li>• Copy of assessment of breakdown of tenders included in pricing document / bill of quantities and comparative cost including sensitivity analysis of lowest comparative cost tender with other tenders.</li> <li>• Copy of independent arithmetical check on tenders.</li> <li>• Copy of minutes of post-tender meeting together with written acceptance of the minutes by the lowest comparative cost tenderer. Where applicable, copies of written post-tender clarifications provided which do not form part of the post-tender meeting.</li> <li>• Copy of results of pre-qualification of tenderers (Stage 1).</li> <li>• Copies of insurances (PI, PL, EL) together with copy of report on these insurances.</li> <li>• Copies of all other post-tender correspondence between the Contracting Authority and the lowest comparative cost tenderer.</li> <li>• Copy of other documentation including, inter alia, pension &amp; sick pay participation, compliant rates of pay, plant &amp; human resources, key personnel, nominated sub-contractors.</li> </ul>	



### A5.8 Tender Award Recommendation Sheet (Sample Template)

The template for the Tender Award Recommendation Sheet shall include, but not be limited to, the following:

#### Part 1 to be completed by Project Manager:

<b>Project Title</b>	
<b>TII PRS Project Ref. No.</b>	

<b>Contract Type</b>	
<b>Procurement Procedure (Open/Restricted/Negotiated)</b>	

#### Brief Description of the Project:

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#### Relevant Dates:

<b>Date of PIN notice</b>	
<b>Date of OJEU contract notice</b>	
<b>Date of e-tenders contract notice</b>	
<b>Latest date for expressions of interest</b>	
<b>Closing date for receipt of tenders</b>	

#### Shortlisting

<b>No. of expressions of interest</b>	
<b>Date of shortlisting</b>	
<b>No. shortlisted</b>	

#### Summary of Tenders

<b>Tenderer</b>	<b>Tender total per pricing document (excl. VAT)</b>	<b>Comparative cost of Tender (excl. VAT)</b>

#### Comments

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**Award Recommendation**

<b>Date of tender report</b>	
<b>Recommended tenderer</b>	
<b>Tender total</b>	
<b>Anticipated commencement date</b>	
<b>Time for completion / duration</b>	

**Contracting Authority Signature**

Signed _____	Date _____
Project Manager	

**Part 2 to be completed by TII**

Recommended by	_____	Date	_____
	Senior Engineering Inspector		
Endorsed by	_____	Date	_____
	Regional Manager		
Approved by	_____	Date	_____
	Head of Roads Capital Projects		
Authorised by	_____	Date	_____
	Director of Capital Projects		
Noted by	_____	Date	_____
	Chief Executive Officer		

Submit to TII Board	Yes _____	No _____	Date _____
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### A5.9 Summary of Duties of the Site Supervisory Staff

The Duties of the Site Supervisory Staff shall include, but not be limited to, the following:

No.	Provision	✓
1	Provide for the monitoring of the Works to ensure that they are constructed in accordance with the Works requirements and the Contract.	
2	Maintain adequate site records including the preparation of Non-Conformance Reports (NCR) as required and ensure that NCRs are properly closed off to the satisfaction of the Contracting Authority's Representative.	
3	Undertake all duties required by the TII Project Management Guidelines.	
4	Fulfil Contracting Authority health and safety obligations during the execution of the Works. Carry out routine health and safety inspections. Ensure that key personnel are promptly informed in the event of a notifiable incident on site.	
5	Prepare recommendations on interim / milestone payments.	
6	Prepare justification reports, as required by Project Manager, in support of change order requests.	
7	Prepare recommendations on applications for compensation events allowable under the contract.	
8	Provide all necessary backup information to the Project Manager in order to claim payments from the PRS System.	
9	Prepare agendas and minutes for site progress meetings and circulate to key staff.	
10	Provide briefings at Project meetings as required.	
11	Prepare progress reports, including progress photographs, at monthly intervals or such other periods as required.	
12	Agree 'As Built' drawings with the Contractor and approve final issue.	
13	Provide backup on the assessment of validity of contractual claims.	
14	Prepare recommendations on the final account.	
15	Provide backup services for conciliation / arbitration on final account.	
16	Provide backup information to the Project Manager in the preparation of the final account report.	
17	If required, monitor issues during the maintenance period.	
18	Prepare for the handover of PSDP duties from Contractor to Contracting Authority following the completion of the Works.	
19	Ensure that the Safety File is transferred from the PSCS to the Contracting Authority following the completion of the Works.	

### A5.10 Outline of items for Potential Future Audit

The Phase 5 information to be retained for potential future audit shall include, but not be limited to, the following:

No.	Provision	✓
1	Record of approvals to proceed with Enabling Works Contracts, including, where applicable, record of tender process (invitation, assessment and award) for each contract.	
2	Record of decision to proceed on basis of contract & procurement type (e.g. civil engineering works designed by the contractor using restricted procedure)	
3	Copy of Sanctioning Authority approval to proceed with Tender Process.	
4	Record of tender notices (PIN, Contract & Contract Award) in local and national press, e-tenders and OJEU.	
5	Record of pre-qualification assessment and short-listing of tenderers.	
6	Record of issuing tender documents to shortlisted tenderers including any tender bulletins or additional information.	
7	Record of receipt of tenders on or before closing date including where applicable, record of tender opening in accordance with Local Authority procedure.	
8	Copy of notification of tenderers with uncorrected tender totals.	
9	Copy of Tender Report including recommendation to award the Contract.	
10	Copy of Sanctioning Authority approval to award the Contract.	
11	Copy of local authority Chief Executive's Order to award the Contract.	
12	Copy of letters to unsuccessful tenderers and Letter of Intent.	
13	Copy of Letter of Acceptance.	
14	Record of Contract signing including all model forms.	
15	Record of collateral agreement appointing Contractor as PSCS and PSDP.	
16	Record of local authority Chief Executive's Order appointing Contractor as PSCS and PSDP.	
17	Copy of approval of appointment of Site Supervisory Team.	

## A5.11 Phase 5 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 5 (Enabling and Procurement).
2. The updated Detailed Business Case has been reviewed by the Sanctioning Authority and the Sanctioning Authority has issued approval for the above referenced national road Project to proceed to tender. A copy of the Sanctioning Authority approval is attached to this letter.
3. All necessary Advance Works Contracts have been procured in accordance with the procurement requirements in force within *[Insert Sponsoring Agency Name]* and approval to the award of these contracts has been received from Transport Infrastructure Ireland. Copies of the relevant Tender Assessment Reports and approved Tender Award Recommendation Sheets have been submitted to Transport Infrastructure Ireland for your records.
4. Target Cost 3 and Total Scheme Budget cost estimates have been prepared and approved in accordance with the TII Cost Management Manual and have been submitted to Transport Infrastructure Ireland for your records.
5. The Detailed Business Case has been updated in accordance with the TII Project Appraisal Guidelines and demonstrates that the above referenced national road Project continues to deliver value for money in accordance with the Public Spending Code. A copy of the updated Detailed Business Case has been submitted to Transport Infrastructure Ireland for your records.
6. *[The updated Detailed Business Case has been reviewed by the Sanctioning Authority and the Sanctioning Authority has issued approval for the above referenced national road Project to proceed to award of the main construction contract. A copy of the Sanctioning Authority approval is attached to this letter.] or [The updated Detailed Business Case has been submitted to TII (as Sanctioning Authority for this Approval Point) at the*

same time as this Gate Review Statement for TII approval to proceed to award of the main construction contract.]<sup>8</sup>

7. The Tender Assessment Report and Tender Award Recommendation Sheet have been prepared for the Main Contract and submitted to Transport Infrastructure Ireland.
8. A copy of the signed Sponsoring Agency Chief Executive's Order approving the award of the main construction contract is attached to this letter.
9. A copy of the Main Construction Contract Documents have been submitted to Transport Infrastructure Ireland for your records.
10. The Project Execution Plan has been updated and submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Progression of the above referenced national road Project from Phase 5 (Enabling and Procurement) to Phase 6 (Construction and Implementation) of the TII Project Management Guidelines.

Is mise le meas,

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*[Sponsoring Agency Director of Services]*

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<sup>8</sup> Delete as appropriate

### A6.1 Outline of duties of Contracting Authority's Representative

The Duties of the Contracting Authority's Representative shall include, but not be limited to, the following:

No.	Provision	✓
1	Responsible for liaison with the Contracting Authority, the TII Senior Engineering Inspector and other relevant third parties.	
2	Ensure completion, in conjunction with the Project Liaison Officer (if different), of all outstanding land acquisitions.	
3	Agree and complete, in conjunction with the Project Liaison Officer, all outstanding accommodation works and advise the Site Supervisory Team of the requirement to prepare/approve Change Orders.	
4	Provide additional liaison between the Contractor, Site Supervisory Team and affected landowners during the construction of the Project.	
5	Take responsibility for Value Engineering during construction to ensure an economical whole-life cost while maintaining quality requirements.	
6	Prepare and submit Justification Reports for Change Orders in excess of the limits permitted under the Contract.	
7	Co-ordinate responses to Contractors Requests for Information.	
8	Co-ordinate the Road Opening Ceremony.	
9	Ensure Contractor complies with procedure for Applications for Departures from Standards.	
10	Monitor overall Project expenditure and ensure that monthly returns are input correctly in the PRS system.	
11	Facilitate and support the Contracting Authority and Site Supervisory Team in negotiations with the Contractor on the Final Account including dispute resolution, if required.	
12	Attend all Project Monitoring Meetings, Site Progress Meetings and such other meetings as required by the Contracting Authority (e.g. Council and Local Area Meetings etc.).	
13	Prepare briefing documents for these meetings and such other publicity information as required by the Contracting Authority and TII.	
14	Liaise with Project Archaeologist to ensure mitigation measures are implemented and that archaeological reports are prepared in a timely manner.	
15	Ensure the hand-over of the Safety File and 'As-Built' documents to the Contracting Authority at the completion of the Works.	

No.	Provision	✓
16	Ensure that TII Audit Requirements are met.	



## A6.2 Monthly Progress Report – Typical Format and Contents

One sheet summary of giving an overview of the progress of the works and financial progress to date

No.	Provision	✓
1	<p><b>Project Details</b></p> <p>Tabular presentation of Project particulars including (Project name and description);</p> <ul style="list-style-type: none"> <li>• Key quantities/project scope;</li> <li>• Contractor name;</li> <li>• Employer's name;</li> <li>• Employer representative's/Contracting Authority's Representative name:</li> <li>• Tender details;</li> <li>• Contract programme and expenditure summary;</li> <li>• Project team individual names,</li> <li>• Roles and responsibilities.</li> </ul>	
2	<p><b>Programme - Current Status</b></p> <p>Current programme status, extensions of time, programme performance (include Contractor's marked-up copy of the current contract programme).</p>	
3	<p><b>Construction Progress to Date</b></p> <ul style="list-style-type: none"> <li>• Overall completion percentage, progress S-Curve, Comments on Contractor's claimed progress.</li> <li>• Construction status for key scheduled items.</li> <li>• Planned works for next period.</li> <li>• Construction Issues.</li> </ul>	
4	<p><b>Design Progress and Submissions</b></p> <ul style="list-style-type: none"> <li>• Design status of key scheduled items or key work packages,</li> <li>• Departures and Relaxations,</li> <li>• Variant Conceptual Designs</li> <li>• Design Issues.</li> </ul>	
5	<p><b>Health and Safety</b></p> <ul style="list-style-type: none"> <li>• Accidents, incidences, occurrences, audits.</li> <li>• Health and Safety Issues including environmental incidences.</li> </ul>	
6	<p><b>Quality and Environmental</b></p> <ul style="list-style-type: none"> <li>• Commentary on test results; non-conformance report; quality site meetings, Contractor's quality assurance; Workmanship; Environmental issues.</li> <li>• Approvals of key suppliers, sources of materials or specialists.</li> </ul>	

No.	Provision	✓
7	<p><b>Finance</b></p> <p>Summary - Contractor's Application Vs ER's Certificate.</p> <p>Reconciliation of Contractor's application versus ER's approved payments/ adjustments based on:</p> <ul style="list-style-type: none"> <li>• Contract Works (payments for items scheduled in initial contract sum)</li> <li>• Compensation Events (separate change orders and other compensation events).</li> <li>• Other adjustments allowable under the contract.</li> <li>• Current Contract Sum compared to Initial Contract.</li> </ul>	
8	<p><b>Risk and Value Management</b></p> <ul style="list-style-type: none"> <li>• Value Engineering Proposals and status.</li> <li>• Risk Management - CCRR (key issues and status; early warning system including steps being taken by ER or Contractor to reduce risk or actions required from the Employer; Claims/ unresolved compensation events and delay events).</li> </ul>	
9	<p><b>Stakeholders Management</b></p> <ul style="list-style-type: none"> <li>• Landowner Interfaces.</li> <li>• Statutory Bodies.</li> <li>• Employer Requirements.</li> <li>• Employer's Representative Issues.</li> <li>• Project Resourcing.</li> </ul>	
10	<p><b>Project Resourcing and Management</b></p> <p>Contractor's personnel and Things on the Site; ER staff and Contractor's Designer personnel. Labour relations issues.</p>	
11	<p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Proposed Instructions (directions and change orders).</li> <li>• Information required or outstanding from the Contractor.</li> <li>• Information required or outstanding from the Employer.</li> <li>• Information required or outstanding from the Employer's Representative.</li> </ul>	
12	<p><b>Action List</b></p> <p>Table with actions implementation status, continuing actions. new actions required.</p>	
13	<p><b>Contract Documentation</b></p> <p>Safety file, as built drawings.</p>	
	<p><b>Examples of Appendices that may be generated for the progress report</b></p> <ul style="list-style-type: none"> <li>• Information Required/Release Schedule.</li> <li>• Design Approval Certificates Register.</li> </ul>	

No.	Provision	✓
	<ul style="list-style-type: none"><li>• Value Engineering Proposals Register.</li><li>• Non-Conformances Report.</li><li>• Construction Programme.</li><li>• Compensation Events and Other Adjustments Register</li><li>• Claims Register.</li><li>• Construction Contract Risk Register.</li><li>• Current Interim Payment Certificate.</li><li>• Cumulative Monthly Figures Graphical Comparison.</li></ul>	

## TYPICAL CHANGE ORDER APPROVAL REQUEST

---

To:

Employer's Contact Details

From:

Employers Representative's /  
Contracting Authority's Representative  
Details

Project: *Enter*  
Description: *Enter*  
Reference: *Enter*

Contract Conditions: *Enter*  
Expenditure to Date: *Enter*

Tender Sum: *Enter*  
Total Scheme Budget: *Enter*

Date of Request:     *Enter Date Request issued to the Employer*

We hereby request your approval to issue a Change Order to the Main Contractor on the above project for the following works:

*Enter detailed description of nature and extent of the works here.....*

A Change Order in accordance with the conditions of the main construction contract is required for these works for the following reasons:

*Enter reasons for Change Order and contractual context and clause applying .....*

The risk to the Contract and the Project if the Change Order is not approved is as follows:

*Enter risk to the Project including programme; budget; quality; claims etc*

In relation to the consideration of Alternative Measure, we advise as follows :

*Enter measures, if any which were considered as an alternative including cost estimates and provide evidence of value engineering opportunities availed of for the alternative measures and the proposed change order.*

The agreed/estimated (delete as appropriate) value of the above described works inclusive of VAT is € Enter Amount (*attach a detailed breakdown of the proposed change order cost estimate confirming basis of valuation anti coverage*). The cumulative value of all Change Orders issued in the applicable 3-month period is € Enter Amount.

The proposed change order can be funded as follows:

*Enter funding proposals and/or details of how the proposed change order costs can be offset against the Contract (e.g. contingency; value engineering savings)*

We would ask that you respond to this request by return/before the Enter Date (delete as appropriate).

Yours Faithfully

---

**Enter Name**

Employer's Representative / Contracting Authority's Representative

**A6.3 Financial Report Summary Sheet**

Main Construction Contract - Interim Financial Reporting Summary		
<b>Project:</b>	<b>Project Reference:</b>	
<b>Prepared by:</b>	<b>Date of Preparation of Report:</b>	
<b>Project Commencement Date:</b>	<b>Reporting Period up to:</b>	<b>Percentage Contract Completion at end of Reporting Period:</b>

Cost Coding - Main Construction Contract  ( As per pricing document)	Breakdown of Pricing Document	Current Application Amounts	Certification to end of Current Reporting Period					Previously Certified Reporting Period End- MMM/YY	Difference	Comments on Movement
	Initial Contract Sum		Initial Contract Sum	Compensation Event (CE)		Other Allowable Adjustments	Total Certified			
				Change Orders	Other CE					
			A	B	C	D	E			
C+D+E+F							G-H			
Preliminaries										
Site Clearance										
Fencing and Environmental Barriers (Excluding Safety Barriers)										
Safety Fencing and Pedestrian Guardrails										
Drainage and Ducting										
Earthworks										
Pavement										
Kerbs, Footpaths/Cyclepaths. and Paved Areas										
Traffic Signs										
Road marking										
Lighting and Electrical Work										
Landscaping and Environmental Work										

Cost Coding - Main Construction Contract  ( As per pricing document)	Breakdown of Pricing Document  Initial Contract Sum	Current Application Amounts	Certification to end of Current Reporting Period					Previously Certified  Reporting Period End- MMM/YY	Difference	Comments on Movement
			Initial Contract Sum	Compensation Event (CE)		Other Allowable Adjustments	Total Certified			
				Change Orders	Other CE					
A	B	C	D	E	F	G	H	J		
						C+D+E+F		G-H		
Communications and Technology										
Structures										
Accommodation Works										
Statutory Undertakers/Authorities/Utilities										
Documentation including As-Built Records. & the Safety File										
Any other Works and/or Liabilities (Add Descriptions)										
<b>Sub-Totals - as per Pricing Document Breakdown</b>										
Value Engineering Adjustments										
Other Adjustments under the Contract (not provided for above)									Must be specified	
<b>Sub-Total</b>										
Materials on Site										
<b>Sub-Total</b>										
Less Retention									Please specify basis of deduction	
<b>Sub-Total</b>										
Add VAT										
<b>Totals inclusive of VAT</b>										
<b>Current Contract Sum</b>		<i>Totals of A. D. E and F)</i>								
Notes: Back-up to the figure Included below shall be presented in the manner described within the TII Cost Management Manual										





## A6.5 Outline of Items to be considered for Official Road Opening Ceremony

The following outlines items to be considered for Official Road Opening Ceremonies:

No.	Provision	✓
1	Obtain the current version of the TII Road Opening Guidelines from TII.	
2	Publicity Requirements – all publicity information (brochures, invitations, plaque etc.) to feature logos and taglines of NPF, Department of Transport, TII, Local Authorities and where appropriate, EU. Ensure that this information is prominent at the roadside ceremony (typically by use of flags).	
3	Identify through TII the person (usually a cabinet minister) who will officially open the Project.	
4	Publications – brochures, invitations and press releases to include statements from minister, TII, Local Authority Chief Executives, Director of Services as appropriate and a statement from EU, if EU-funded.	
5	Commission a commemorative plaque and organise for erection on site at a suitable location.	
6	Official Languages Act – All publicity information including the commemorative plaque will be bilingual and will comply with the requirements of the Official Languages Act.	
7	Obtain press release from TII.	
8	Liaise with Local Authorities regarding their specific requirements for such events.	
9	Arrange for a photographer and/or members of the local press and media to attend at the official road opening ceremony.	
10	If required, arrange for members of the clergy to attend at the official road opening ceremony.	
11	Ensure appropriate traffic management is in place to temporarily divert live traffic from new road until completion of the roadside ceremony.	
12	Prepare and agree, with TII and Local Authorities, a full list of invitees to the ceremony.	
13	If required, organise a suitable venue for refreshments to be served and for speeches to be made. Confirm an MC for speeches and agree seating order at the 'top table'.	

## A6.6 Final Account Report (Sample Template)

The following template outlines the items to be included in a Final Account Report:

No.	Provision	✓
1	<p><b>Project Summary Details</b></p> <ul style="list-style-type: none"> <li>• Project description including length, road type and key elements such as structures, junctions and side roads.</li> <li>• Pre-tender details including Form of Contract, competition type, tender process.</li> <li>• Post-tender details including tender assessment, Contractor appointed, contract period, substantial completion date and date of taking over certificate.</li> <li>• Finance details including tender sum, compensation events, other risks, value engineering proposals, price variation (if applicable) and other claims forming part of the Contractor's final statement, details of the Contracting Authority's determination, and determination of the final outturn by agreement or by dispute resolution including conciliation and arbitration as required.</li> <li>• Confirmation of final outturn cost including comparison of final outturn cost as a percentage of the tender sum.</li> </ul>	
2	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Detailed description of the Project including scope of the Contract and principal quantities.</li> <li>• Timeline of the main Contract including commencement date, period for completion, date of substantial completion and date of taking over certificate.</li> <li>• Details of Contractor's pricing document / bill of quantities and comparative cost of tender.</li> </ul>	
3	<p><b>Contract Administration</b></p> <ul style="list-style-type: none"> <li>• Provide details of the administration of the Contract by the Contracting Authority or its representatives or agents including key aspects of health &amp; safety, design and construction.</li> <li>• Provide a summary of site instructions, requests for information and non-conformance records and details of how they were satisfactorily addressed.</li> </ul>	
4	<p><b>Risk Management</b></p> <ul style="list-style-type: none"> <li>• Outline of risk management processes adopted for the Contract including details, if applicable, of how additional value for money was achieved.</li> <li>• Provide a summary of the Contract risk register including any residual risks.</li> </ul>	
5	<p><b>Final Account Details</b></p> <ul style="list-style-type: none"> <li>• Detailed description of the Contractor's final statement issued in accordance with the conditions of contract.</li> <li>• Breakdown of the Contractor's final statement under the headings of:                             <ul style="list-style-type: none"> <li>• Items claimed under the contract sum;</li> <li>• Compensation events (including basis of calculation);</li> <li>• Approved value engineering proposals;</li> <li>• Change orders including necessary TII approvals as required;</li> </ul> </li> </ul>	

No.	Provision	✓
	<ul style="list-style-type: none"> <li>• Price variation (if applicable) including calculation method (PV1, PV2);</li> <li>• Other contractual claims including basis for Contracting Authority's assessment of each claim.</li> <li>• Details of any counter-claims submitted by the Contracting Authority including the basis for calculation.</li> <li>• Details of discussions held between Contracting Authority and Contractor to settle the final account by agreement including details of the Contracting Authority's decision on the final account.</li> <li>• Details, if applicable, of the notification of dispute and of the dispute resolution including the outcome of the conciliation and/or arbitration processes.</li> <li>• Details of the final outturn cost as agreed or as determined by dispute resolution.</li> <li>• Comparison of the final outturn cost with the tender sum expressed as a percentage.</li> </ul>	
	<p><b>Conclusions &amp; Recommendations</b></p> <ul style="list-style-type: none"> <li>• Conclude that the final outturn cost represents the total liability of the Contracting Authority under the Contract, that it is in full and final settlement of the Contract including all claims and counter-claims between the Contracting Authority and the Contractor and that it represents value for money.</li> <li>• Include recommendations arising from lessons learned on the Contract:</li> <li>• Aspects of the Contract that worked well;</li> <li>• Aspects of the Contract that did not work well;</li> <li>• Aspects of the Contract or contract administration that could be changed or improved upon for future Contracts;</li> <li>• Were scope requirements (time, cost and quality) achieved?</li> <li>• Lessons that can be learned from contractual claims.</li> <li>• Include recommendation that this final account report be approved.</li> </ul>	
	<p><b>Appendices</b></p> <ul style="list-style-type: none"> <li>• Copies of tender notices, Chief Executive Orders and Sanctioning Authority tender approval.</li> <li>• Copy of TII approval of Site Supervisory Team and where applicable, copy of approval of the appointment of expert advisors for the final account.</li> <li>• Copy of certificate of substantial completion &amp; taking over certificate.</li> <li>• Copies of TII approval of change orders.</li> <li>• Copy of NCR and RFI Register confirming closeout of all site issues.</li> <li>• Copy of value engineering proposal register.</li> <li>• Copy of Contractor's final statement, issued in accordance with the Contract.</li> <li>• Summary of counter claims, if any, submitted by the Contracting Authority.</li> <li>• Summary of Contracting Authority's decision on Contractor's final statement and if applicable, copy of agreement of final account signed by both parties.</li> <li>• If applicable copy of notices of dispute / engagement in dispute resolution.</li> <li>• Copy of outcome of conciliation and/or arbitration processes.</li> </ul>	

No.	Provision	✓
	<ul style="list-style-type: none"><li>• Copy of approval of final outturn cost and where this figure exceeds the tender sum, copy of approval to discharge the balance payable.</li><li>• Copy of Chief Executive Orders or other sanction of the Contracting Authority authorising that the balance due to the Contractor be paid.</li><li>• Schedule of cumulative interim payments up to and including final payment.</li></ul>	

**A6.7 Outline of items for potential future audit (Phase 6)**

The Phase 6 information to be retained for potential future audit shall include, but not be limited to, the following provisions:

No.	Provision	✓
1	Copies of monthly certificates.	
2	Record of payments together with necessary approvals and signoffs.	
3	Copy of application forms for all change orders including associated Justification Reports.	
	Copy of TII approval of all Change Orders, where appropriate.	
	Copies of all determinations made in relation to compensation events, including where applicable, price variation.	
	Copies, where applicable, of approvals to appoint expert advisors / legal advisors to assist in determination of final account.	
	Where applicable, record of appointment of conciliator.	
	Where applicable, record of referral to arbitration.	
	Copy of recommendation of conciliator and/or copy of award of arbitrator.	
	Copy of the final account report.	
	Copy of certificate of date for substantial completion.	
	Copy of taking over certificate.	

## A6.8 Phase 6 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 6 (Construction and Implementation).
2. The Project Execution Plan has been updated and submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* request Transport Infrastructure Ireland approval to the following:

1. Progression of the above referenced national road Project from Phase 6 (Construction and Implementation) to Phase 7 (Closeout and Review) of the TII Project Management Guidelines.

Is mise le meas,

---

*[Sponsoring Agency Director of Services]*

## A7.1 Land Disposal Strategy Report (Sample Template)

The following template outlines the items to be included in a Land Disposal Strategy Report:

### 1.0 Background:

- Project Description;
- Overview of land acquisition process including relevant dates (confirmation, notice to treat, notice of entry) together with details of additional lands, if any, bought by agreement as part of the land acquisition process;
- Overview of the main Contract including principal Contractor, start and end dates etc.

**Table 1 Project Summary Details**

Item	Description
Project Name	
TII Project Reference No.	
Project Length (mainline) (km)	
TII Marker Plate References (if available)	
Mainline Road Type	
Total Number of Structures	
Total Length of Side Roads (km)	
Principal Interchanges (No. & Type)	
Minor Structures (e.g. underpasses and culverts)	

**Table 2 Land Acquisition Details**

Item	Description
Total Area of Land Acquired (Ha/Acres)	
Total Cost of Land Acquisition* (€) (Include cost of land only. Exclude other lands costs such as interest and fees)	
Total Number of Land Plots for Disposal	
Total Area of Land for Disposal	



## 2.0 Land Disposal Strategy

Following completion of the N[ ] Road Project, there are [ ] No. separate plots of surplus lands, which [ ] County Council proposes to dispose of as they are no longer required for any of its functions. Details of these lands are summarised in Table 3 hereunder.

**Table 3 Land Disposal Details**

Plot No.	Address	Area	Disposal Strategy	Acquired From
1	Townland: [ ] DED: [ ] County: [ ]	[ ] Ha ([ ] Acres)	Auction / Offer for Sale in consideration of a sum of €[ ] / Transfer per Clause [ ] of land agreement to [Name and Address of Landowner]*	Name and Address of person(s) from whom property was acquired (Include CPO/MO Map Reference No. where applicable)
2	Insert additional properties as required per Plot No. 1 above			

## 3.0 Disposal Strategy Details

### 3.1 Plot No. 1

#### 3.1.1 Particulars of Land

Land, comprising [ ] Ha ([ ] Acres) in area, situate in the townland(s) of [ ], District Electoral Division(s) of [ ] and County of [ ] as outlined in Drawing No. [ ], a copy of which is enclosed in Appendix 1. The land is not required by [ ] County Council in connection with the maintenance of the Project or in connection with any of its functions.

#### 3.1.2 Person(s) from whom the Land was acquired

The land was acquired from [Insert Name and Address of person(s)] pursuant to Compulsory Purchase / Motorway Order Ref. [ ] and forming part of Property No. [ ] Map No. [ ] of the Deposited Map.

#### 3.1.3 Person(s) to whom the Land is to be disposed of

The land is to be disposed of to [Insert Name and Address of person(s)]

### 3.1.4 Consideration proposed in respect of the disposal

**Enter either:**

The lands are to be disposed of to the person(s) outlined above in consideration of a sum of €[ ] payable to [ ] County Council.

**or**

The lands are to be disposed of by public auction, the proceeds of which shall be payable to [ ] County Council.

**or**

There is no consideration proposed in respect of this disposal as it forms part of a land agreement condition as described hereunder.

### 3.1.5 Covenants, Conditions or Agreements having effect in connection with this disposal

*Insert, as appropriate, agreements for the purchase of land or relevant Clause of Land Agreement outlining particulars of proposed land transfer.*

### 3.2 Plot No 2

*Insert, as required, for 2nd and subsequent land plots as outlined above*

### 4.0 Recommendation

It is recommended that [ ] County Council's Land Disposal Strategy for the N[ ] Road Project as outlined in this Report be approved.

### Appendices

- Appendix 1: Land Disposal Drawings
- Appendix 2: Copies of covenants, agreements or conditions relating to the Land Disposal Strategy
- Appendix 3: Photographs.

## A7.2 Project Closeout Report (Sample Template)

The following template outlines the items to be included in a Project Closeout Report:

### Introduction

- Provide a background to the Project outlining the PRS expenditure headings and other reports (e.g. Final Account Report, Phase 7 COBA Report) that have directly input into this Report.
- Provide Basic Project Information per Table 1 hereunder:

**Table 1 Summary of Project Information:**

Item	Description
Project Name	
TII Project Reference No.	
Project Length (mainline) (km)	
TII Marker Plate References (if available)	
Mainline Road Type	
Total Number of Structures	
Total Length of Side Roads (km)	
Principal Interchanges (No. & Type)	
Minor Structures (e.g. underpasses and culverts)	
AADT at Year of Opening	
AADT at Design Year	

- Provide a brief history of the Project as it progressed from planning & design, through the statutory processes, to tender and award, to construction and completion of the main Contract.
- Provide a Safety Review of the Project, summarising the key issues arising from Stage F, 1, 2 and 3 Road Safety Audits.
- Provide a statement of the Final Outturn Cost, together with confirmation of the Total Scheme Budget as determined in accordance with the *TII Cost Management Manual* (Base Cost, Project Risk and TII Programme Risk).

### 2.0 Chronology of Key Project Dates

- Summarise the key milestone dates for the Project for both planning & Development and the main Contract as outlined in Tables 2 and 3 hereunder:

**Table 2 Planning & Design Key Milestones**

Item	Date
Project Commencement Date	
Date of Public Consultation (Options)	
Date of Approval of Option Selection Report	
Date of Public Presentation of Preferred Option	
Date of Part 8 Publication (if applicable)	
Date of Part 8 Resolution (if applicable)	
Date of Approval of Design Report	
Date Project submitted to An Bord Pleanála (if applicable)	
Date land acquisition documentation submitted to An Bord Pleanála	
Date of An Bord Pleanála land acquisition Confirmation	
Date of Notice to Treat	
Date of Notice of Entry	
Commencement Date of main Contract	
Date of Official Road Opening	
Date of Project Closeout	

**Table 3 Main Contract Key Milestones**

Item	Description
Type of Tender (Open/Restricted/Negotiated)	
Date of PIN	
Date of Contract Notice in OJEU	
Closing Date for Tender Submissions	
Name of Successful Tenderer	
Date of Contract Signing	
Contract Period	
Certificate of Date for Substantial Completion	

Item	Description
Date Final Statement submitted by Contractor	
Date of Contracting Authority's Decision (if required)	
Date of Conciliator's Recommendation (if required)	
Date of Arbitration Award (if required)	
Date of Final Account Approval	

### 3.0 Planning & Design

- Confirm the team involved in the Planning & Design of the Project per Table 4 hereunder.

**Table 4 Project Management Structure**

Item	Description
Client	
Sponsoring Agency	
Responsible NRDO	
Project Manager	
Design Team	
Legal Advisors	
Other Advisors (e.g. Environmental, Valuers, etc.)	

- Summarise the total expenditure for Planning & Design per the PRS System in Table 5 hereunder. Express this expenditure as a percentage of the Project Final Outturn Cost and as a percentage of the main Contract outturn cost

**Table 5 Summary of Planning & Design Expenditure**

Name of Service Provider	Service	Total Expenditure
	Lead Consultant (Design)	€
	Ground Investigation	€
	Topographical Surveys	€
	Other Services as required	€
	Responsible NRDO	€
<b>TOTAL EXPENDITURE PLANNING &amp; DESIGN</b>		€

### Archaeology (All Phases)

- Summarise all Archaeological Works carried out to date including, inter alia, non-intrusive surveys, advance works intrusive surveys, excavation works, construction monitoring and associated resolution, post-excavation, reporting and dissemination.
- Summarise the total expenditure for Archaeology (All Phases) per the PRS System in Table 6 hereunder. Express this expenditure as a percentage of the Project Final Outturn Cost.

**Table 6 Summary of Archaeology (All Phases) Expenditure**

Name of Service Provider	Service	Total Expenditure
	Stage (i) Test Excavations and Surveys Services Requirements	€
	Stage (ii) Pre-Excavation Services Requirements	€
	Stage (iii) Excavation & Post-Excavation Assessment Services Requirements	€
	Construction Monitoring	€
	Stage (iv) Post Excavation & Dissemination Services	€
	Other Services as required	
<b>TOTAL EXPENDITURE ARCHAEOLOGY (ALL PHASES)</b>		€

### 5.0 Enabling Works

- Summarise all Enabling Works Contracts carried out to date including, inter alia, service diversions, topographical proof surveys, additional GI contracts and where required, advance hedge clearance and fencing contracts.
- Summarise the total expenditure for Enabling Works Contracts per the PRS System in Table 7 hereunder. Express this expenditure as a percentage of the Project Final outturn cost.

**Table 7 Summary of Enabling Works Contracts Expenditure**

Name of Service Provider	Service	Total Expenditure
	Service Diversions (Civil)	€
	Service Diversions (utilities)	€
	Additional GI Contract	€
	Topo. Proof Survey	€
	Other Services as required	€
<b>TOTAL EXPENDITURE ENABLING WORKS CONTRACTS</b>		€

## 6.0 Main Construction Contract

- Provide a summary of the tender procedure including competition type, relevant notices, tender appraisal, recommendation and award.
- Provide an overview of the scope of the Works comprising the main Contract.
- Provide a summary of the make-up of the final account including the tender
- Sum, approved change orders, compensation events, value engineering, contractual claims and dispute resolution (if required) as outlined in Table 8 hereunder. State the percentage increase of the final outturn cost of the main Contract over the tender sum. Express the final outturn cost of the main Contract as a percentage of the Project final outturn cost.

**Table 8 main Contract Expenditure**

Item	Description
Tender total incl. VAT	€
Total of approved change orders incl. VAT	€
Total value of compensation events payable	€
Total value of savings arising from value engineering	€
Total contract value per Contractor's final statement	€
Total Contract value per Contracting Authority's decision	€
Total Contract value per conciliator's recommendation	€
Total Contract value per arbitration award	€
Total outturn cost per agreed final account	€
Total increase (outturn v tender sum)	€
Percentage increase (outturn v tender sum)	%

## 7.0 Site Supervision

- Provide a summary of the Contracting Authority Site Staff Compliment, either direct employees or Technical Advisors per Table 9 Hereunder:

Site Staff Grade	No. Employed
Contracting Authority's Representative	
Additional site supervisory staff as required	

- Summarise the total expenditure for Site Supervision per the PRS system. Express this expenditure as a percentage of the Project final outturn cost and as a percentage of the main Contract outturn cost.

## 8.0 Residual Network

- Summarise all residual network expenditure carried out to date including, inter alia, official road opening ceremony, Percent for art Project, old national road rehabilitation, sign declassification, landscaping contracts and where required expenditure for the preparation of reports (e.g. final account, Phase 7 COBA, land disposal strategy, closeout).
- Summarise the total expenditure for residual network per the PRS system in Table 10 hereunder. Express this expenditure as a percentage of the Project final outturn cost.

**Table 10 Summary of Residual Network Expenditure**

Name of Service Provider	Service	Total Expenditure
	Publicity	€
	Percent for Art	€
	Old Road Rehabilitation	€
	Sign Declassification	€
	Landscaping Contract	€
	Phase 7 Deliverables	€
	Other Services as required	€
<b>TOTAL EXPENDITURE RESIDUAL NETWORK</b>		€

## 9.0 Land & Property

- Summarise land acquisition process including details of CPO confirmation, notice to treat, notice of entry.
- Summarise the total area of land acquisition in hectares and acres and provide a summary of land-take per kilometre of mainline (Ha/km).
- Confirm total number of land holdings affected.
- Summarise any land acquisition cases referred to arbitration and the outcome of this process.
- Provide details of any monetary amounts credited to the Project arising from the approved land disposal strategy.
- Summarise the total expenditure for land & property per the PRS system and as outlined in the land acquisition summary sheet. Express this expenditure as a percentage of the Project final outturn cost.

## 10.0 Conclusions

- Summarise the final outturn costs per Table 11 hereunder:



**Table 11 Summary of Final Outturn Costs**

<b>Item</b>	<b>Outturn Cost</b>
Planning & Design	€
Archaeology (All Phases)	€
Advance Works Contracts	€
Main Construction Contract	€
Site Supervision	€
Residual Network	€
Land & Property	€
<b>PROJECT OUTTURN COST (PER TC4)</b>	€
<b>TOTAL SCHEME BUDGET (PER TC4)</b>	€

- Confirm any outstanding works not completed at the time of the closeout report and whether such works will be completed;
- Provide summaries of the value and risk management strategies and whether they were effective in maximising value for money and mitigating against Project risks (refer to results of Phase 7 COBA report where required);
- Summarise the evolution of the Project budget from TC 1 to TC 4 per the TII Cost Management Manual;
- Provide Details of lessons learned from the Project which may benefit future Projects. Refer, where necessary to the lessons learned in the final account report and transfer this data to the post-project review report for incorporation into the TII lessons learned database;
- Recommend that the Project closeout report be approved by the TII marking the end of the Project.

### References

Include the following references to be read in conjunction with the Project closeout report:

- Project Tender Report
- Project Final Account Report
- Phase 7 COBA Report
- Land Disposal Strategy Report

### Appendices

- Copy of Phase 7 Target Cost 4 (TC4) per TII Cost Management Manual
- Copy of Final Account Approvals
- Copy of Approval of Planning & Design Team Structure/Technical Advisor Approval
- Copy of Approval of Site Supervisory Team Structure /Technical Advisor Approval

- Copy of Residual Network Approvals (e.g. Landscaping Contract)
- Copy of Land Acquisition Summary Sheet per TII Cost Management Manual.

### A7.3 Post-Project Review – Outline of items

The Post-Project Review shall include, but not be limited to, the following:

No.	Provision	✓
1	Project Name/TII project reference number.	
2	Lead local authority/other local authorities involved.	
3	Main Contract final outturn cost.	
4	Project Final outturn cost.	
5	Phase 2, 3, 4, 5 & 7 CBA Results (PVC, PVB, NPV, BCR).	
6	Key Dates (project commencement, Option Selection Report, land acquisition, environmental evaluation, statutory processes publication dates, oral hearing decision, Notice to Treat, Notice of Entry, Contract Notices (PIN Contract, Contract Award), main Contract commencement date, date for substantial completion, official opening, Project closeout).	
7	Main Contract (Contract type, Contracting Authority, year of opening, design year).	
8	Lead Technical Advisor/Site Supervisory Team.	
9	Date of Project inception.	
10	Brief description of the Project including description of principal structures / signature structures.	
11	Brief description of existing road conditions prior to Project completion (alignment, road surface, particular hazards, accident history etc.).	
12	Confirm priority of Project (NDP, NRNS, MIU, Western Corridor, Key NP/NS targeted for upgrade etc.)	
13	Provide details of pre-construction traffic forecasts (AADT for year of opening design year) and anticipated levels of service.	
14	Where available, include principal findings/executive summary of Traffic Modelling Report.	
15	If Traffic Modelling Report is not available, summarise principal traffic assumptions made in traffic forecasting.	
16	Provide details of all Project Appraisal Deliverables prepared for the Project at various phases (Project Brief, Business Case, PABS, CBA, Traffic Modelling Reports).	
17	Provide a summary of the Option Selection Process (number of options considered, principal appraisal headings, details of consultations, key benefits of the preferred option). Provide a map of the options and executive summary of Option Selection Report, if available.	
18	Provide details of principal design parameters (design standards, design speed, road type and width, departures from standards, junction strategy) used in Project design including executive summary of Design Report, if available.	

No.	Provision	✓
19	Confirm Statutory Process via which the Project was approved	
20	Provide details of land acquisition process, outlining total land-take requirement.	
21	Provide summary of tender process for main Contract (procurement type, pre-qualification process, number of candidates shortlisted to tender, tender period, tender appraisal and award, details of Contract notices (PIN/Contract/Contract Award) tender report and TII approval of tender report).	
22	Provide details of monitoring and management of the main Contract (details of progress meetings, Project monitoring meetings, progress reports, risk reports, value reports NCR and RFI registers, change orders, compensation events, contractual claims, final account resolution and main Contract final outturn cost.) including final account report, if available.	
23	Provide details of Project outturn cost under each of the seven headings in PRS. Include Project closeout report, if available. Compare with Total Scheme Budget provided in Phase 7 Target Cost per <i>TII Cost Management Manual</i> .	
24	Confirm Project schedule compliance (commencement date, time for completion, date of substantial completion outlining any deviation (+/- no. of days) from Contract completion date.	
25	Provide an overview of risk and value management strategies implemented on the Project.	
26	Compare pre-construction traffic forecasts with actual traffic counts undertaken on the completed Project and confirm any deviation (+/- %) of predicted forecasts with actual counts.	
27	Confirm percentage reduction in actual travel times (derived from Phase 7 CBA) and confirm current levels of service.	
28	Confirm percentage reduction in actual travel times (derived from Phase 7 CBA) and confirm current levels of service	
29	Confirm road safety performance (all Road Safety Audit Stage 1, Stage 2 & Stage 3 Report recommendations adopted; post completion accident statistics, if available)	
30	Extract lessons learned from Final Account Report and include in Post Project Review lessons learned.	
31	<p>Provide an overview of issues arising for inclusion in the lessons learned database (provide as much detail as possible and include both positive and negative feedback in particular highlighting any innovations used on this Project that could benefit other Projects). Provide responses to the following:</p> <ul style="list-style-type: none"> <li>• Were Project Scope (time, cost, quality) objectives met?</li> <li>• Give examples of what went well on the Project</li> <li>• Give examples of what went wrong on the Project</li> <li>• Suggest what could be done differently if the Project was to start again</li> <li>• What could be done differently on future projects based on the experience of this Project?</li> </ul>	

#### A7.4 Outline of items for potential future audit

The Phase 7 information to be retained for potential future audit shall include, but not be limited to, the following provisions:

No.	Provision	✓
1	Confirmation that any Contracts awarded under residual network were procured in accordance with current policy (e.g. landscaping contracts, percent for art Project, sign declassification Contracts etc.)	
2	Copies of TII approvals (and where necessary appropriate Chief Executive's Orders) of the award of these residual network Contracts.	
3	Evidence of payment of all outstanding monies from the main Contract (including retention monies) as per the agreed final account.	
4	Copy of completed Land Acquisition Summary Sheet.	
5	Copy of land disposal strategy report.	
6	Evidence that any payments made by landowners as part of the Land Disposal Strategy have been credited to the Project grant.	
7	Copy of Phase 7 Cost-Benefit Analysis Report, where required.	
9	Copy of Project closeout report.	
9	Copy of post-project review report, where required.	
10	Procurement file (completed for all service providers appointed to the Project).	

## A7.5 Phase 7 Gate Review Statement

*[On Sponsoring Agency Letterhead]*

Transport Infrastructure Ireland  
Parkgate Business Centre  
Parkgate Street  
Dublin 8  
D08 DK10

*[Insert Date]*

Attn : *[Insert relevant TII Regional Manager Name]*

Re : *[Insert Project Name]*

A Dhuine Uaisle,

We refer to the above referenced national road Project.

*[Insert Sponsoring Agency Name]* hereby confirm the following:

1. *[Insert Sponsoring Agency Name]* have completed in full all of the processes required in the TII Project Management Guidelines for Phase 7 (Closeout and Review).
2. The Project Closeout Report has been prepared and submitted to Transport Infrastructure Ireland for your records.
3. Target Cost 4 and Total Scheme Budget cost estimates have been prepared and approved in accordance with the TII Cost Management Manual and submitted to Transport Infrastructure Ireland for your records.
4. The Post Project Review (including lessons learned register) has been prepared and reviewed in accordance with the TII Project Appraisal Guidelines and a copy has been submitted to Transport Infrastructure Ireland for your records.
5. The Land Disposal Strategy for surplus lands on the Project has been prepared and approved and a copy has been submitted to Transport Infrastructure Ireland for your records.

Accordingly, *[Insert Sponsoring Agency Name]* confirm that the *[Insert Project Name]* has been completed and closed out.


Is mise le meas,

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*[Sponsoring Agency Director of Services]*







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Stráid Gheata na Páirce,  
Baile Átha Cliath 8, D08 DK10, Éire

 Parkgate Business Centre,  
Parkgate Street,  
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