TII Publications

GE PE DN CC OP AM RE

Introduction to the TII Publications System

GE-INT-01029
June 2016

GE General

Standards

About TII

Transport Infrastructure Ireland (TII) is responsible for managing and improving the country's national road and light rail networks.

About TII Publications

TII maintains an online suite of technical publications, which is managed through the TII Publications website. The contents of TII Publications is clearly split into 'Standards' and 'Technical' documentation. All documentation for implementation on TII schemes is collectively referred to as TII Publications (Standards), and all other documentation within the system is collectively referred to as TII Publications (Technical).

Document Attributes

Each document within TII Publications has a range of attributes associated with it, which allows for efficient access and retrieval of the document from the website. These attributes are also contained on the inside cover of each current document, for reference.

TII Publication Title	*Introduction to the TII Publications System*
TII Publication Number	*GE-INT-01029*

Activity	*General (GE)*		Document Set	*Standards*
Stream	*Introduction (INT)*		**Publication Date**	*June 2016*
Document Number	*01029*		**Historical Reference**	*-*

TII Publications Website

This document is part of the TII publications system all of which is available free of charge at http://www.tiipublications.ie. For more information on the TII Publications system or to access further TII Publications documentation, please refer to the TII Publications website.

TII Authorisation and Contact Details

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TII Publications

Activity:	General (GE)
Stream:	Introduction (INT)
TII Publication Title:	Introduction to the TII Publications System
TII Publication Number:	GE-INT-01029
Publication Date:	June 2016
Set:	Standards

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1. Introduction

Transport Infrastructure Ireland (TII) has been created from the merging of the National Roads Authority (NRA) and the Railway Procurement Agency (RPA) under the Roads Act 2015 and is responsible for managing and improving the country's national road and light rail networks.

TII produces and manages a wide range of standards and technical documentation related to its remit, which is made freely available to users through the TII Publications system website (www.tiipublications.ie).

This document provides an overview of TII Publications and describes the translation of NRA and RPA documentation to the TII Publications structure.

2.   TII Publications Overview

2.1   General

TII Publications provides requirements, advice, and guidance in relation to managing and improving Ireland's national road and light rail networks. TII Publications replaces the NRA Standards website and initially the documentation available will be the same documentation published by the NRA prior to the existence of TII. Over time, documentation will be added (including light rail documentation) and outdated documentation withdrawn or replaced, as appropriate.

TII Publications is sub-divided for the purposes of clearly defining two distinct sets of documentation within the system, i.e. 'Standards' and 'Technical'. Documentation designated as part of the 'Standards' set is referred to as 'TII Publications (Standards)' and shall be used in conjunction with National Road schemes (refer to GE-POL-01030 - Implementation and Use of TII Publications (Standards) Documentation). All remaining documentation in the system is published in a controlled manner and designated as part of the 'technical' set, referred to collectively as 'TII Publications (Technical)'.

2.2   TII Publications (Standards)

TII Publications (Standards) documentation defines the requirements that support policy, administrative and technical procedures developed by TII to govern activities with respect to the National Road network.

TII Publications (Standards) subsumes the documentation previously available on the NRA Standards website. This documentation includes:

- NRA Design Manual for Roads and Bridges (NRA DMRB) for National Roads schemes

- NRA Manual of Contract Documents for Road Works (NRA MCDRW) for National Roads schemes

The NRA MCDRW included a wide range of material referenced into contract documents, including specifications, contractual details, method of measurement, standard construction details and other guidance covering contractual issues that were incorporated directly into contracts by reference.

TII Publications (Standards) provides divisions within the documentation called Streams. However, the documents that were included in the 'Specification for Road Works' of the NRA MCDRW are now included as the 'Specification for Works (SPW)' Stream under the 'Construction and Commissioning (CC)' Activity within the TII Publications system (see Section 3 for more detail on the TII Publications structure). All the NRA MCDRW documentation has been mapped into to TII Publications (Standards) in a similar fashion to facilitate the continued referencing of groups of collective documentation in contracts. The following collective groups are noted in this respect;

- Specification for Works (SPW), replaces Specification for Road Works;

- Guidance on Specification for Works (GSW), replaces Notes for Guidance on Specification for Road Works;

- Requirements for Measuring and Pricing (RMP), replaces the Method of Measurement for Road Works;

- Guidance on Measuring and Pricing (RMP), replaces Notes for Guidance on the Method of Measurement for Road Works;

- Standard Construction Details (SCD), replaces Road Construction Details.

Individual parts (previously known as series) or elements (specific drawings) within the NRA MCDRW have been reproduced as independent documents or drawings, controlled within the TII Publications system.

2.3   TII Publications (Technical)

TII Publications (Technical) includes documentation that aligns with TII Publications (Standards) but does not contain requirements, advice or guidance that should form part of TII Publications (Standards). This set contains additional documentation covering a wide variety of issues, such as:

- **Interim Technical Advice** – where a document or drawing is intended to be included in the TII Publications (Standards) in the future, but is made available outside this system for a period of review. This is similar to the historic use of interim advice notes;

- **Technical bulletins** – used to communicate important changes and developments relevant to practitioners of TII Publications (Standards). Relevant information may include recent changes and updates to standards-related documentation, background information on policy issues behind revisions and other topics considered to be of interest and relevance;

- **Research / Testing papers** – outputs from TII research programmes or testing programmes (i.e. pilot or trial projects). Such papers can be used to communicate the consideration of possible innovations to standards which may be of relevance to practitioners of TII Publications (Standards).

Other technical documentation types contained in this set may include:

- Relevant technical documentation for light rail schemes and networks;

- Policy documents;

- Strategic reports;

- Circulars of a technical nature;

- Manuals for use of technical websites / software;

- Approval systems;

- Contract forms; or

- Other technical reports (such as transport research and information notes).

2.4   TII Library

The main TII website (http://www.tii.ie/) contains a document library of material outside the TII Publications system. The TII Library contains documentation considered relevant to TII, but not included in the TII Publications system due to a non-technical or project-specific focus. The library will contain documents made available for general reference to TII as an organisation or project-specific references. Over time, some of the contents of the TII Library may be migrated to the TII Publications system.

The TII Library can be accessed through main TII website (http://tii.ie/tii-library).

# 3.	TII Publications Structure

## 3.1	Concept

TII has devised a matrix arrangement to reference documentation within TII Publications that provides a simple, overarching structure integrating project workflow and discipline-focused modules. The matrix is made up of seven primary pillars derived from life cycle stages typical of all infrastructure assets (called 'Activities'), and secondary strands related to discipline or function (called 'Streams'). The concept allows for documents within each Activity across all Streams (or within each Stream across all Activities) to be easily identified and retrieved.

The Activities reflect TII areas of activity. Each document is assigned within only one Activity. Activities have been denoted by different colours as a mechanism to visually differentiate between the different activities. The seven activities in the system are as follows (colour coded with short codes in parenthesis):

General (GE)	GE
Planning and Evaluation (PE)	PE
Design (DN)	DN
Construction and Commissioning (CC)	CC
Operations (OP)	OP
Asset Management and Maintenance (AM)	AM
Research (RE)	RE

The Streams are developed around the most useful discipline, function or group within each Activity. Every document or drawing in the system has been assigned to one stream. Documents within the same Stream can be retrieved across all the Activities. Using Streams as the secondary reference level for all documentation allows TII to manage discipline/functional separation of the documentation within the life-cycle approach. This is similar to the division volumes provided for previously through the NRA DMRB and NRA MCDRW. Additional Streams will be established within each of the Activities as required.

As an example, the Streams envisaged within the Design (DN) Activity are listed as follows, with short code in parenthesis:

Examples of TII Publications Streams

Stream	Short code	Stream	Short code
Archaeology	(ARC)	Road Equipment	(REQ)
Buildings	(BLD)	Rail Systems	(RSY)
Drainage	(DNG)	Rolling Stock	(RSS)
Design Management	(DNM)	Structures	(STR)
Environment	(ENV)	Safety	(STY)
Earthworks	(ERW)	Track Alignment and Clearances	(TAC)
Geometry	(GEO)	Traffic	(TRA)
Intelligent Transport Systems	(ITS)	Trackworks	(TWK)
Lighting	(LHT)	Tunnels	(TUN)
Other Documents	(OTH)	Urban Architecture and Landscaping	(UAL)
Pavement	(PAV)	Urban / Rural Interface	(URI)
Pilot and Trial Projects	(PTP)	Utilities	(UTL)

Please note only Streams that are represented by documentation in the system will be visible on the TII Publications website. Therefore, initially, many of the Streams listed above are not used.

3.2 Database and Metadata

TII has developed a database to manage and control all documentation within TII Publications. The database links to the TII Publications website to provide a public interface to access and download documents and drawings. The database stores key information associated to TII Publication documentation to allow for efficient access and retrieval of documentation from the TII Publications website. This information is called metadata.

Metadata can be defined as 'a set of data that describes and gives information about other data'. The metadata relevant to TII Publications documentation is summarised below.

3.2.1 Activity and Activity Short Code

The Activity refers to the specific life cycle stage associated with the documentation as described in section 3.1. The Activity short code is a two letter abbreviation for the Activity.

3.2.2 Stream and Stream Short Code

The Stream refers to the specific technical discipline or function associated with the documentation as described in section 3.1. The Stream short code is a three letter abbreviation for the Stream.

3.2.3 Document Number

The Document Number is a five digit numeric identifier assigned to the documentation within the Activity and Stream assignment.

3.2.4   TII Publication Title

This is the title of the document or drawing, a key reference in the TII Publications system.

3.2.5   TII Publication Number

The TII Publication number is also a key reference for each TII Publication document and drawing and is based on a combination of the following:

- 'Activity Code' to identify the primary Activity of the content of the document;

- 'Stream Code' to identify the Stream to which the document relates; and

- 'Document Number' to identify the unique document within the Activity and Stream assignment.

As examples, three TII Publications numbers are shown in the following table.

Examples of TII Publications Numbers

TII Publication Number	Activity	Stream	Document Number
DN-ITS-03020	Design (DN)	Intelligent Transport Systems (ITS)	03020
CC-SPW-01500	Construction and Commissioning (CC)	Specification for Works (SPW)	01500
RE-CPI-07001	Research (RE)	Collaboration Projects Ireland (CPI)	07001

3.2.6   Set Level

Each document within the TII Publications system is assigned metadata to clearly identify documentation forming either part of TII Publications (Standards) or TII Publications (Technical).

3.2.7   Publication Date

Every document in the system has a publication date.

3.2.8   Withdrawal Date

A withdrawal date is assigned to documentation that has been superseded or withdrawn from TII Publications.

3.2.9   Historical Reference

For documents that existed within the NRA DMRB or the NRA MCDRW prior to the launch of TII Publications, the NRA document reference (e.g. – NRA HD 36, MM Series 700, etc) is included as metadata. Documentation that did not have a historical reference does not have any information assigned to this metadata attribute.

Metadata referencing the historical reference is included to facilitate website searching during the transition from the NRA standards website to the new TII Publications website and to assist in the retrieval of withdrawn versions of documentation. However, these historical references are deemed to be replaced by the TII Publication Number for each document and drawing.

3.3　　Referencing and Branding

3.3.1　　Transition to TII Publications

To illustrate the migration to TII Publications from the NRA and RPA systems, new front and rear covers are attached to each document. The front cover will display the TII logo as shown in Figure 3.1 and will identify the following metadata:

1. TII Publication Title;

2. TII Publication Number;

3. Publication Date;

4. Document Set; and

5. Activity.

Note – The numbers in Figure 3.1 reference the metadata numbering above.

The front cover will also be 'branded' with the colour associated with the Activity of the document. This colour will be applied to the image on the right side of the cover and the Activity identification in the bottom left corner of the cover.

The colours associated with each Activity are as follows:

TII Publication Activity Colours

Activity	Colour	
General	Grey	GE General
Planning and Evaluation	Pink	PE Planning & Evaluation
Design	Red	DN Design
Construction and Commissioning	Orange	CC Construction & Commissioning
Operations	Yellow	OP Operations
Asset Management and Maintenance	Blue-green	AM Asset Management & Maintenance
Research	Purple	RE Research

The front inside cover provides descriptions of TII, TII Publications, metadata, and historical references. The inside cover identifies the following metadata:

- TII Publication Title

- TII Publication Number

- Activity

- Stream

- Document Number

- Set

- Publication Date; and

- Historical Reference.

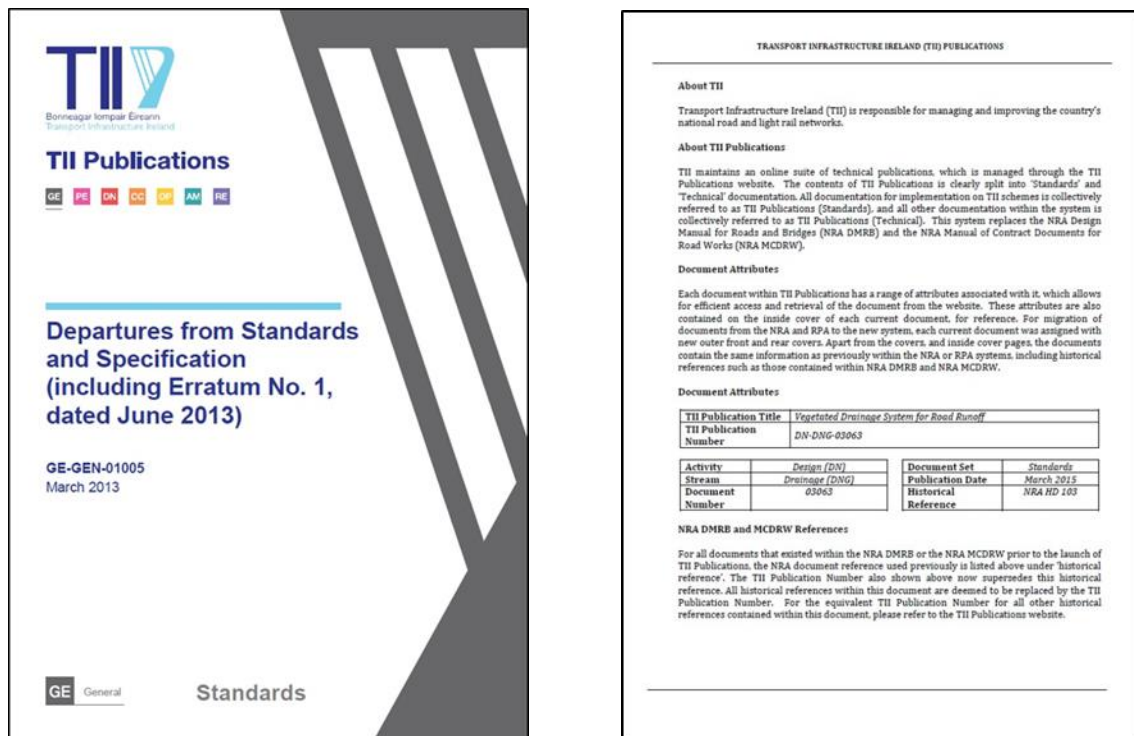An example of the typical document front cover is shown in Figure 3.1.

Figure 3.1   Example TII Publications Document Front Cover for Transition

For drawings, and documents that have graphic-designed covers, the TII Publication number will be identified within a red box along the drawing border as shown in Figure 3.2

Note - The location of this box may vary depending on the contents of the drawing or the document cover.
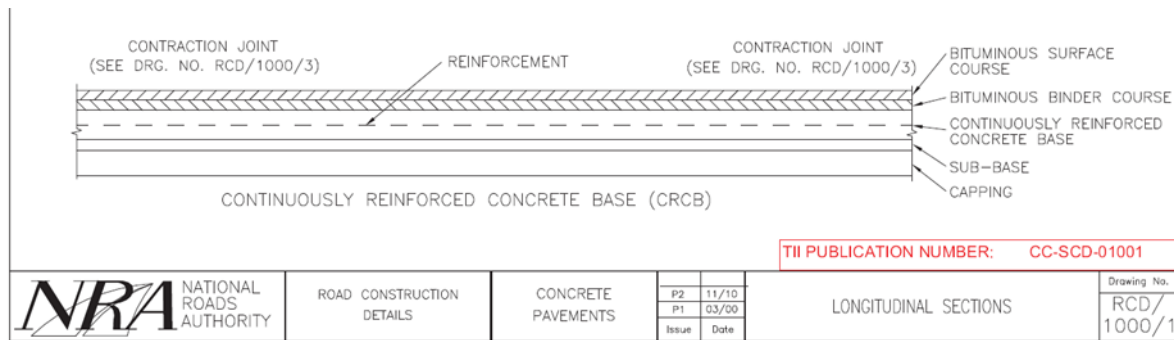
Figure 3.2   Example TII Publications Drawing Border for Transition

Apart from the new cover pages for the documents and the addition of the TII Publication number to the drawings, the documentation will contain the same information as previously contained within the NRA Standards website, including historical references to the NRA DMRB and NRA MCDRW.

3.3.2   Going Forward

TII Publications documentation developed going forward will reference documentation by TII Publication numbers and remove historical references to the previous documentation from within the documentation, as appropriate. To differentiate these documents from the transition documents described in Section 3.3.1, new document covers and drawing borders will be utilised.

Document front covers will be similar to the transition covers described in Section 3.3.1. The document will be 'branded' with the TII logo and appropriate Activity colour and the metadata will be identified on the front and inside cover.

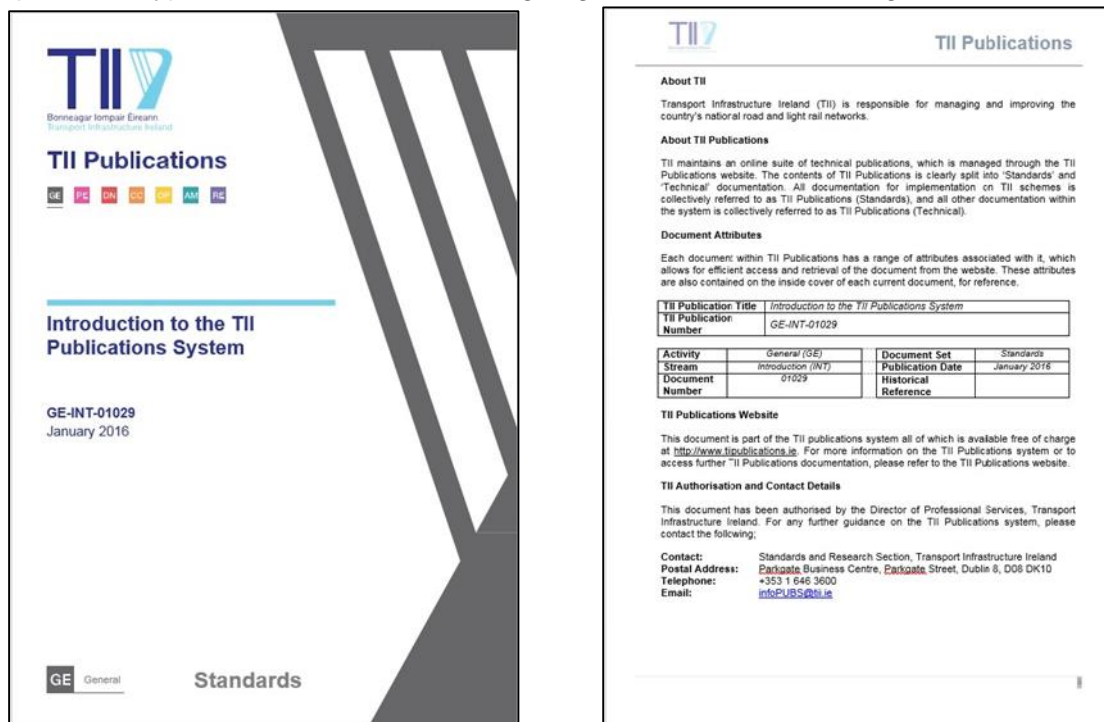An example of the typical document front cover going forward is shown in Figure 3.3.

Figure 3.3   Example TII Publications Document Front Cover Going Forward

Drawing borders will show the TII logo and contain metadata. The metadata will include:

- TII Publication Title;
- TII Publication Number;
- Activity;
- Stream;
- Historical Reference;
- Document Set;
- Publication Date; and
- Version Number.

An example of the typical border for drawings going forward is shown in Figure 3.4.

Activity		TII Publication Title			
CC Construction & Commissioning		Edge of Pavement Details: Carriageway in Cutting or on Embankment Nearside Verge Detail with Surface Water Channel Title 3			
Stream	Historical Reference	Document Set	Date	TII Publication Number
Standard Construction Detail (SCD)	RCD/100/300	Standards	Month yyyy	CC-SCD-00103

Figure 3.4   Example TII Publications Drawing Border Going Forward

Documents with graphic-designed covers will continue to include the TII Publication Number as a red block shown in an appropriate location on the document front cover.

4.   TII Publications Website Functionality

4.1   Introduction and Structure

The TII Publications website is consistent with the branding of the TII website (www.tii.ie). The website is designed to provide users easy navigation to find current TII Publications documentation, withdrawn and superseded documentation, recent changes to the TII Publications, and future updates to the TII Publications. Links to the TII website, Departures from Standards website, and TII Library are also available.

The TII Publications website is in the public domain and forms part of the main TII website. The TII Publications website fully replaces any and all references to previous sources of TII documentation, including the NRA Standards website.

The documentation available on the TII Publications website is stored in a database maintained by TII and updated when documentation is developed or revised and published through the TII publication process. All documentation in the database is available for download free of charge. For queries regarding the availability of specific documentation, contact infoPUBS@tii.ie.

The TII Publications website utilises the metadata attributed to each document and drawing to facilitate search functions. Metadata categories can be searched independently or in combination to find specific documentation or groups of related documentation.

4.2   Searching, Finding and Listing

There are two prominent techniques to search for documents on the TII Publications website:

- A 'simple' search of the TII Publications documentation utilising a keyword(s) or number(s) to produce a list of documentation that match this input.

- An 'advanced' search of TII Publications by identifying Activities, Streams and other parameters of interest to produce a list of results.
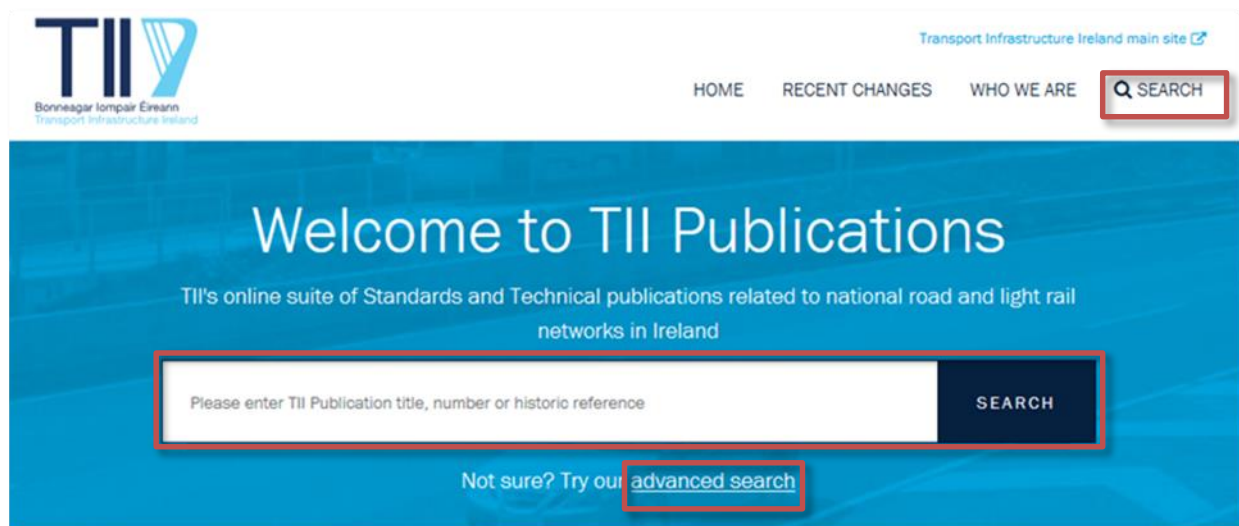

Figure 4.1   Searching the TII Publications

The simple search is accessed through the input field on the TII Publications homepage or from the search button in the header as shown in Figure 4.1. This search will examine the TII Publication title and number as well as the historical reference based on the input(s) into the field. The search is

predictive and will display results to the user in response to their input. The predictive list is limited to 20 results: users should not rely on this as a comprehensive output list. Users can select a document from the predictive list to view that document or can select the 'Search' button to return a comprehensive list of matches.

The advanced search is accessed from the TII Publications homepage as shown in Figure 4.1. The user selects Activities and Streams by toggling fields on the advanced search page to return documents that meet this criterion. As the user toggles Activity fields, the list of Streams updates to show only the streams with documentation within the Activities selected.

The user can also limit search results based on the publication type discussed in Section 3.2.6. The default advanced search setting is 'Standards and Technical'.

The default advanced search is set to search for documentation currently in use and documentation that has been withdrawn and not replaced as of the current date. The user can adjust the search date to return documentation that was in use at a specific date in the past as well as withdrawn documentation that was not replaced at that time. This feature is particularly useful for searching for a set of documents used for past contracts.

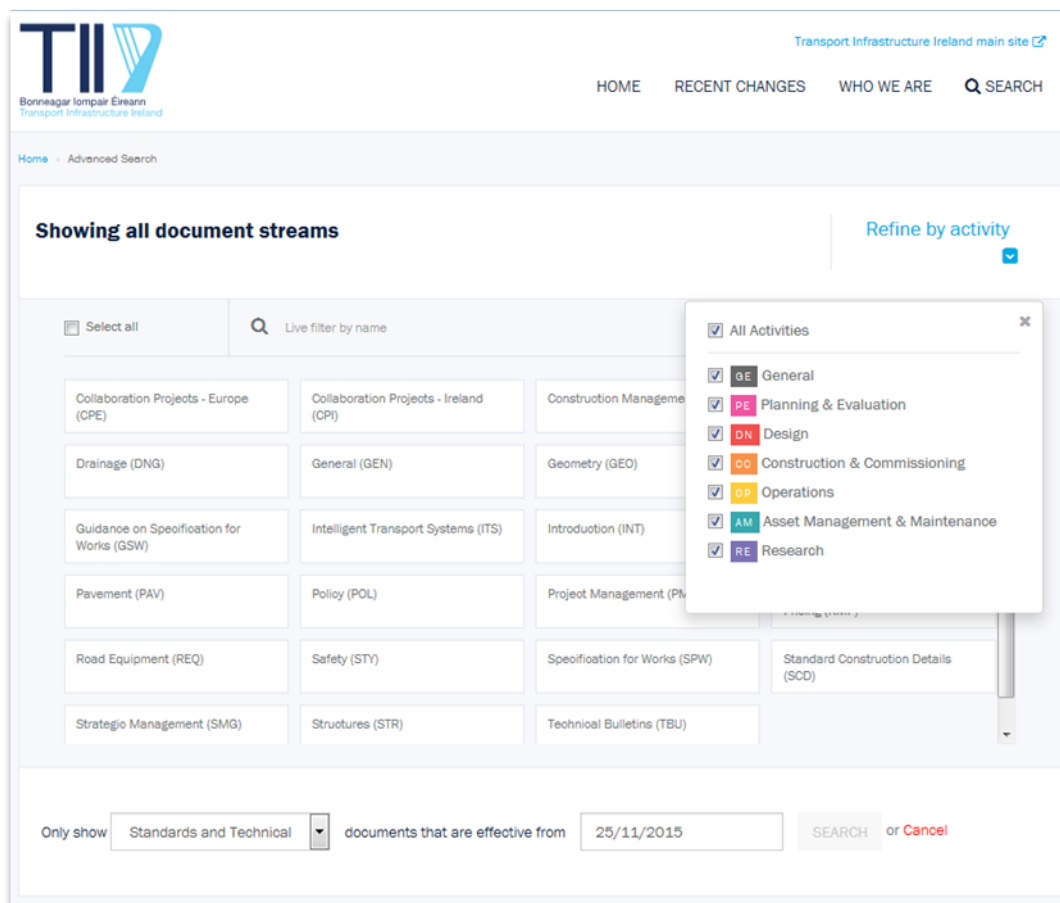Figure 4.2 shows an example of an advanced search page.

Figure 4.2   Example of Advanced Search Page

Documents that meet the search criteria are returned as a list on a search results page. The documents are sorted by their Activity, and the Activities are ordered based on the project life cycle order. The results show the:

- TII Publication title;

- TII Publication number;

- Historical reference, as applicable;

- Publication dates; and

- Version type of the documentation (published or withdrawn).

The results page displays the same informational categories whether the simple or advanced search is used. An example of a document search results page is shown in Figure 4.3.

The results can be actively filtered by utilising the 'Refine by' fields located above the search results list such as Activities/Streams, Set and Type. Results can also be filtered by keywords found in the TII Publication title and number.

The search results can be downloaded to a .csv by selecting the 'Download in Microsoft Excel (.csv)' green button above the results list.
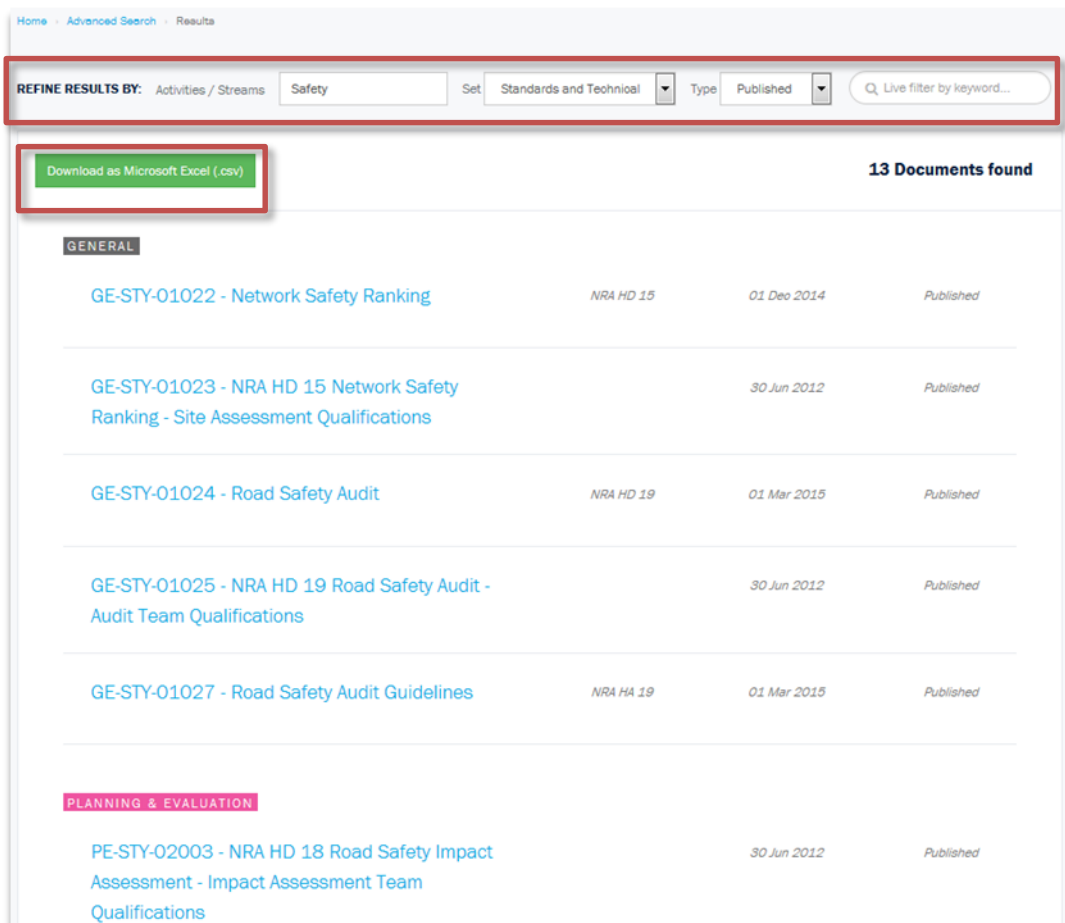

Figure 4.3   Example of Search Results Page

4.3   Documents and Archives

Details for a particular document are summarised on the document page. The information included on the document page is:

- TII Publication title;
- TII Publication number;
- Publication date;
- Activity;
- Stream;
- Document set;
- Historical reference;
- Version type; and
- Version history.

The user can download the documentation by clicking the document title at the top of the page. The version downloaded is identified in bold in the version history list. Different versions of the document are noted by their publication date under the version history and can be downloaded by clicking on the hyperlinked date. Figure 4.4 is an example of a document page.
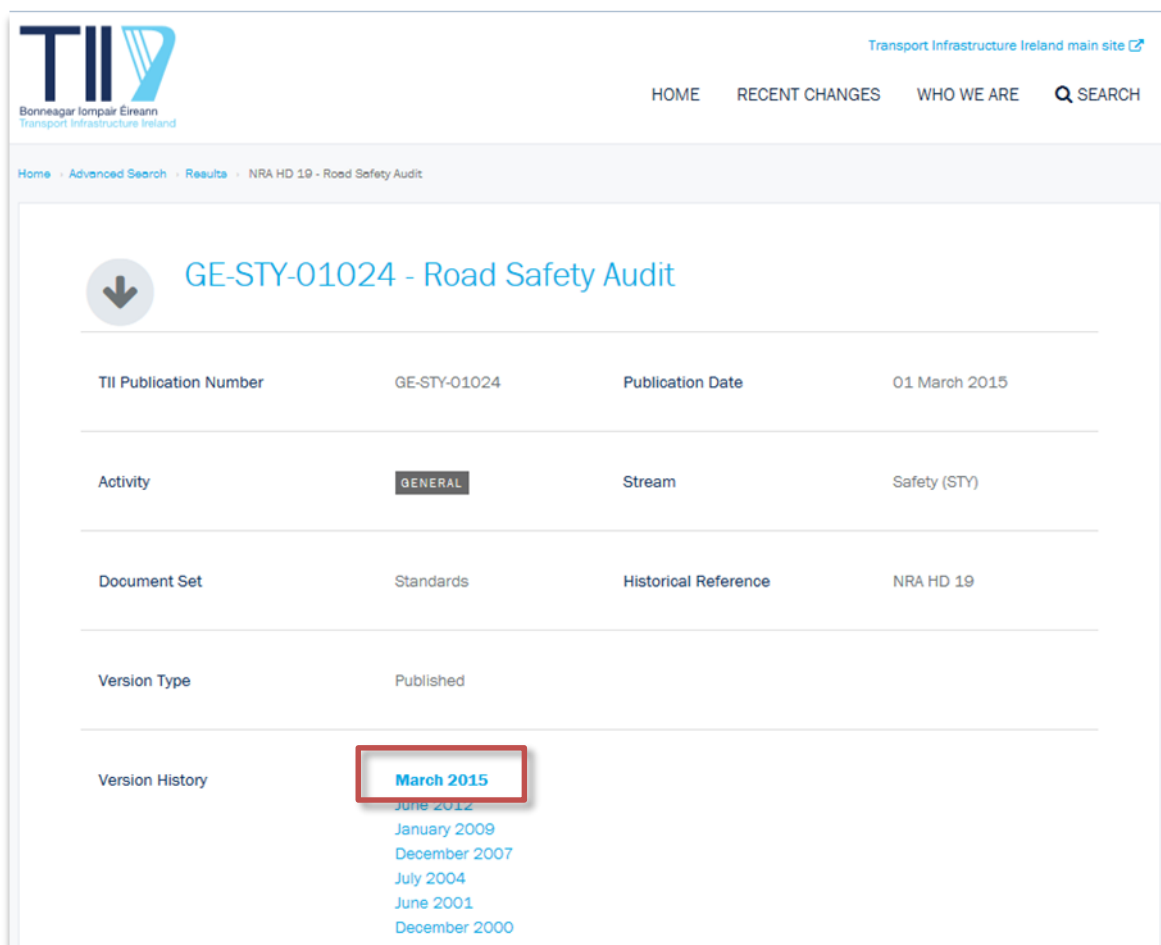

Figure 4.4   Example of a Document Page

Note that the documents grouped under version history all have the same TII Publication number but not necessarily the historical reference.

4.4   Updates to TII Publications

The TII Publications are periodically evaluated and revised to ensure the suite of documents is up-to-date with TII policy. New documents are also incorporated as the need arises. A list of recent changes to the TII Publications can be found on the TII Publications homepage under the 'Recent Changes' webpage.

TII also provides a list of anticipated documentation for publication and their estimated publication dates. This information can be found from the TII Publications homepage under the 'Forward Look' webpage. Documentation publicised may include:

- Development of new standards;

- Restructuring of existing standards;

- Adoption of documentation currently outside of the standards to form part of TII Publications (Standards);

- TII technical policy documents;

- TII strategic reports on technical issues;

- TII technical information notes, such as technical bulletins;

- TII technical approval systems;

- Other TII technical reports, such as pilots and trials.

TII also distributes periodic communications regarding updates to TII Publications and training courses. Users can receive the alerts from TII via email. Access to subscribe and unsubscribe is on the TII Publications homepage footer shown in Figure 4.5. Users will be directed to a new page in order to subscribe or unsubscribe.

SUSCRIBE TO TII ALERTS
® Transport Infrastructure Ireland

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Figure 4.5   TII Subscriber Link

5.   References

5.1   TII Publications Standards References

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