

Stáisiún Uí Chonghaile, Baile Átha Cliath 1, D01 V6V6

Connolly Station, Dublin 1, D01 V6V6

T 01 703 4293 E foi@irishrail.ie W www.irishrail.ie



20th July 2021



Email:

Re: Response - FOI request IE_FOI_481

Dear [REDACTED],

Following on from our phone call today 8th June 2021, I refer to your request during same made under the Freedom of Information Act 2014, which was received on by my office on that date, for records held by Iarnród Éireann.

Request:

- Copy of all documentation relating to works done on bridge OBC438 from 2017 – 2019 to include tendering and works documentation and all/any documents following on from this repair work
- Copy of all documentation relating to works done on the fencing between the public car park under OBC438 and the railway line (1/2 km of works) to include tendering and works documentation and all/any documents following on from this repair work

The decision maker handling your request is Ms. Louise O’Riain.

Response:

I, Ms. Louise O’Riain, Decision Maker have now made a final decision to part grant your request on 20th July 2021.

Please find response document and schedule of records attached.

Rights of appeal

In the event that you are not happy with this decision you can make an appeal in relation to this matter, you can do so by writing to the FOI Unit, Corporate Communications, Iarnród Éireann Irish Rail, Connolly Station, Amiens St, Dublin 1 or by e-mail to foi@irishrail.ie. You should make your appeal within 4 weeks (20 working days) from the date of this notification, where a day is defined as a working day excluding, the weekend and public holidays, however, the making of a late appeal may be permitted in appropriate circumstances.

The appeal will involve a complete reconsideration of the matter by a more senior member of the staff of this body.

Should you have any questions or concerns regarding the above, please contact the FOI Officer on [REDACTED] or by email at foi@irishrail.ie

Yours sincerely,

PP 

Ms. Louise O'Riain, FOI Decision Maker, Infrastructure Mgmt, Iarnród Éireann

Freedom of Information Request:
Schedule of Records for [IE_FOI_481](#) : Summary for Decision Making

Record No.	Date of Record	Brief Description	No. of Pages	Decision: Grant/Part Grant/Refuse	Section of Act if applicable
1		20170821 AF_1 form OBC437 & OBC438 Issued_Redacted	1	Part Grant	S37
2		20180426 AF_1 form OBC438 Painting works Issued_Redacted	1	Part Grant	S37
3		copy of Division 17 BOQ Rev 1 for Tender November 2020_Redacted	18	Part Grant	S37
4		Prelim HS Plan OBC437 OBC438 rev 1_Redacted	39	Part Grant	S37
5		Prelim HS Plan OBC438 Painting Works_Redacted	29	Part Grant	S37
6		Div 17 Fencing	2	Grant	~
7		Doc 1.1 IE Palisade Fencing Scope Division 17	14	Grant	~
8		Doc 1.2 IE Contractors Permit to Access	19	Part Grant	S37
9		Doc 1.3 IE Certification of Road Rail Vehicles	27	Part Grant	S37
10		Doc 1.4 IE Environmental Management System	20	Part Grant	S37
11		Doc 1.5 IE Fencing Specification	37	Part Grant	S37
12		Doc 1.6 IE Instructions on use of site and railway safety	4	Grant	~
13		Doc 1.7 IE Code of Conduct for Suppliers	5	Grant	~
14		Doc 1.8 IE Drugs and Alcohol Policy	23	Grant	~
15		Documents Listing	1	Grant	~
16		Form of Collateral Warranty	3	Grant	~
17		Instructions to Tenderers	20	Part Grant	S37

18	Rates of Pay & Conditions of Employment	1	Grant	~
19	Vol B Form of Tender & Schedule	7	Part Grant	S37
20	Vol D Short Form Contract CF6-v1.12		Grant	~
21				

Signed:

Freedom of Information / Data Protection Executive

Approved Form (AF 1)

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

Any day on which construction work is carried out (including holidays and weekends) should be counted, even if the work on that day is of short duration. A person day is one individual, including supervisors and specialists, carrying out construction work for one normal working shift.

This Notification is to be made by Registered Post to HSA, Metropolitan Building, James Joyce Street, Dublin 1; or as may be directed by the Authority.

- 1 Client:** Provide name, full address, telephone number and e-mail address for the Client. If more than one Client, please attach details of all Clients on a separate sheet.

Name: Iarnród Éireann

Address: Engineering & New Works Building,
Inchicore,
Dublin 8

Telephone: 01 703 4228 E-Mail: info@irishrail.ie

- 2 Project Supervisor Design Process and Health & Safety Coordinator:** Provide name, full address, telephone number and e-mail address for the PSDP and Health & Safety Coordinator for the Design Process.

PSDP Name: Iarnród Éireann H&S C. Name:

Address: Engineering & New Works Building,
Inchicore,
Dublin 8 Address:

Telephone: 01 703 4228 Telephone:

E-Mail: info@irishrail.ie E-Mail:

- 3 Project Supervisor Construction Stage and Health & Safety Coordinator, if known:** Provide name, full address, telephone number and e-mail address for the PSCS and Health & Safety Coordinator for the Construction Stage.

PSCS Name: H&S C. Name:

Address: Address:

Telephone: Telephone:

E-Mail: E-Mail:

- 4 Information on Construction Work:** Please provide your details of the following.

Description of Project: The title of the project is "OBC437 & OBC438 Deck and Handrail Renewals" OBC437 and OBC438 are located on the Cork to Cobh line at 176miles 631yards and 176miles 1208yards respectively

Exact Address of Construction Site: OBC437 & OBC438 Lower Rd,
Ringmeen,
Cobh,
Co. Cork

Signed: [Redacted Signature] by or on behalf of the Client

Position: Safety Executive Date: 21-August-2017

Approved Form (AF 1)

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

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Telephone:	01 703 4228	E-Mail:	info@irishrail.ie

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Address:	Engineering & New Works Building, Inchicore, Dublin 8	Address:	
Telephone:	01 703 4228	Telephone:	
E-Mail:	info@irishrail.ie	E-Mail:	

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PSCS Name:		H&S C. Name:	
Address:		Address:	
Telephone:		Telephone:	
E-Mail:		E-Mail:	

4 Information on Construction Work: Please provide your details of the following.

Description of Project:	The title of the project is "OBC438 Bridge Painting" OBC438 is located on the Cork to Cobh line at 176miles 1208yards		
Exact Address of Construction Site:	OBC438 Lower Rd, Ringmeen, Cobh, Co. Cork		
Signed:	[Redacted Signature] on behalf of the Client		
Position:	Safety Executive	Date:	26-April-2018

Preamble to the Bill of Quantities

This Pricing Document has been prepared in accordance with the Civil Engineering Standard Method of Measurement (CESMM3) 3rd edition 1991, except where otherwise noted. Those documents and all items are to be read subject to the drawings, specification and all the contract terms.

1 General Directions

In this Pricing Document the sub headings and item descriptions identify the work covered by the respective items, but the exact nature and extent of the work to be performed is to be ascertained by reference to the Drawings, Specification and Conditions of Contract as the case may be read in conjunction with the matters listed against the relevant marginal headings Class A-Z of the Civil Engineering Standard Method of Measurement 3rd edition, published by the Institution of Civil Engineers in 1991.

The rates and prices entered in this Pricing Document shall be deemed to be the full inclusive value of the work covered by several items including the following, unless expressly stated otherwise: -

- i Labour and costs in connection herewith.
- ii The supply of materials, goods, storage and costs in connection herewith including waste and delivery to site.
- iii Plant and costs in connection herewith.
- iv Fixing, erecting and installing or placing of materials and goods in position.
- v Temporary works.
- vi The effect of the phasing of the works of alterations or additions to existing services and mains to the extent that such work is set forth or reasonably implied in this document on which the tender is based.
- vii General obligations. Liabilities and risks involved in the execution of the works set forth or reasonably implied in the documents on which the Tender is based.
- viii Establishment charges, overheads and profit.

In accordance with CESMM3 the tenderer may insert in the Pricing Document such items for method related charges as he may consider to cover items of work relating to his intended method of executing the works, the cost of which are not considered as proportional to the quantities of the other items and for which he has not allowed in the rates and prices for the other items. The method related charges shall allow for compliance with Iarnród Éireann safety requirements.

Items have been inserted to cover costs such as site offices, canteen, supervision, etc. The tenderer must price these as a minimum. Other items can be inserted in the space provided at the tenderers discretion.

2 Measurement

The measurement of work shall be computed in net from the drawings unless otherwise stated in the Method of Measurement. The Contractor shall allow in rates and prices for waste.

3 Pricing of Items

Each individual item shall have a realistic rate or price entered against it. Rates and prices shall be expressed to two decimal places. All units, rate, quantity and amount columns must be completed and totalled across.

4 Use of Alternative Authorised Materials or Design

Where in the contract a choice of alternative materials or designs is indicated for a given purpose, the description billed and rates and prices inserted shall be deemed to cover any of the permitted alternative materials or designs which the Contractor may elect to use and all measurement of such work shall be based upon the thinnest alternative construction permitted by the Contract.



5 Privately and Publicly Owned Services


The information in the Contract as the whereabouts of existing services and mains is believed to be correct but the Contractor shall not be relieved of his obligations under the Conditions of Contract. The Contractor shall include in his rates and prices for taking of measures for the support of pipes, cables and other apparatus during the progress of the Works and for keeping the Engineer informed of all arrangements he makes with owners of privately owned services, statutory Undertakers and Public Authorities as appropriate and for ensuring that no existing mains and services are interrupted without the written consent of the appropriate authority.

<p>6</p> <p>7</p> <p>8</p> <p>9</p>	<p>COVID-19 Contractors will be required to ensure that the "Works" as designed and set out in the Works Requirements are constructed in strict compliance with the Health and Safety at Work Regulations and subject to HSE guidance in respect of COVID-19. The PSCS must ensure procedures on site adhere to HSE and Irish Government Guidance relating to COVID-19. Contractors will need to ensure full compliance at all times with all public health measures currently in place for all work persons both on and off site. Tenderers must provide supporting detail in their tender response of their policies and proposed procedures and safeguards to ensure that these works can be safely and successfully completed without compromising any of the key health and safety and public health measures. All additional costs associated with implementing COVID-19 procedures are deemed to be included for in the Preliminaries OR in the submitted rates for the individual work items.</p> <p><u>Value Added Tax</u> The rates and prices entered in the Pricing Document shall not include Values Added Tax.</p> <p><u>Instruction to Tenderers</u> The Instructions to Tenderers in the accompanying document shall be carefully noted by intending Tenderers prior to completion of the Pricing Document. Failure to comply with the instructions may lead to invalidation of the tender.</p> <p><u>Reinforcement</u> The cost of chairs, spacer bars or any other form of support necessary to maintain the reinforcement on position is not measured and should be included in the rates for reinforcement.</p>
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			Sub-Total €	TOTAL €
GRAND SUMMARY				
Class A:	General Items	Page 1 - Brought Forward	████████	
		Page 2 - Brought Forward	████████	████████
	<u>Fencing</u>			
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
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████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
Location 7	176mls 600yds - 176mls 1200yds UP	Page 11 - Brought Forward		€57,300.00
████████	████████████████████	████████████████████		████████
████████	████████████████████	████████████████████		████████
TOTAL (Excl. VAT) - carried to Form of Tender				████████








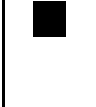
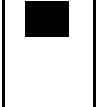




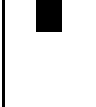
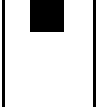





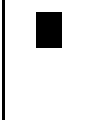
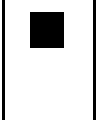


Item	Item Description	Unit	Quantity	Rate	Amount
<u>CLASS A: GENERAL ITEMS</u>					
<u>Contractual Requirements</u>					
A120.1	Insurance of the Works as per Contract	Sum	1		██████████
A120.2	Employers Insurance as per Contract	Sum	1		€
A120.3	Public liability insurance as per Contract	Sum	1		€
A130	Third Party Insurance	Sum	1		€
A140	Contractor to undertake the role of PSCS for works.	Sum	1		██████████
<u>Specific Requirements</u>					
A249	Setting-out Engineer required for interpretation of topographical survey, linking into survey via the permanent setting out points.	Sum	1		€
A271	Set up and implement traffic management plans, including all necessary signage, at required sites	Sum	1		€
A280	Attendance of all the Contractors Personnel at a site induction	Sum	1		€
<u>Method-Related Charges</u>					
A311.1	Establishment & removal of site offices (fixed)	Sum	1		€
A311.2	Maintenance of offices for the duration of the works (time-related)	Sum	1		€
A314	Establishment & removal of stores and materials compounds (fixed)	Sum	1		€
A315.1	Establishment & removal of canteen/messroom (fixed)	Sum	1		€
A315.2	Operate and maintain canteen and messroom for the duration of the construction (time-related)	Sum	1		€
A333.1	Delivery & removal of plant (fixed)	Sum	1		€
A333.2	Operate and maintain plant for the duration of the works (time-related)	Sum	1		€
A321.1	Set up electricity supply and standby generator (fixed)	Sum	1		€
A321.2	Temporary lighting for site	Sum	1		€
A322	Water supply for the duration of the construction (time-related)	Sum	1		€
A327.1	Welfare facilities complying with HSE regulations for the duration of the construction (time-related)	Sum	1		€

Item	Item Description	Unit	Quantity	Rate	Amount
A327.2	Complying with COVID-19 regulations (see Preamble Item 6)	Sum	1		€
Total Page 1 - Carried Forward to Grand Summary					
A371.1	<u>Method-Related Charges – Supervision and Labour</u> Mobilisation and demobilisation from the sites (fixed)	Sum	1		
A371.2	Management and supervision of the contract (time-related)	Sum	1		€
A371.3	Programming and scheduling of the works (time-related)	Sum	1		€
A372.1	Administration of the contract (time-related)	Sum	1		€
A390	Preparation of all Method Statements for approval by the Engineer (fixed)	Sum	1		€
A273.1	Maintenance of access roads and reinstatement of damaged land belonging to IÉ & any third party	Sum	1		€
	<u>Method-Related Charges–section to be filled by Main Contractor to suit specific needs; Main Contractor to note this is not an exhaustive list</u>				

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 2 - Carried Forward to Grand Summary					






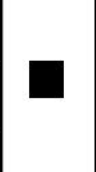
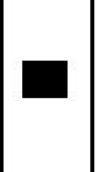


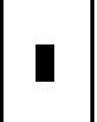















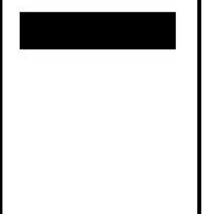


Div17 Fencing Bills of Quantities				€
[Redacted]	[Redacted]			
[Redacted]	[Redacted]			
[Redacted]	[Redacted]	[Redacted]	[Redacted]	
[Redacted]	[Redacted]	[Redacted]	[Redacted]	
[Redacted]	[Redacted]			
[Redacted]	[Redacted]			
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]			
[Redacted]	[Redacted]			

Total Page 4 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€

Total Page 5 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€
LOCATION 4: 170mls 1000yds - 170mls					
					
					
					
					
					
					
					
					
					

Total Page 7 - Carried Forward to Grand Summary					██████████
Div17 Fencing Bills of Quantities					€
	██████████				
	██████████				
	██████████	█	█		██████████
	██████████		█		
	██████████	█	█		
	██████████				
	██████████	█	█	█	██████████
	██████████				

Total Page 8 - Carried Forward to Grand Summary					██████████
Div17 Fencing Bills of Quantities					€
	██████████				
	██████████				
	██████████	██	██		██████████
	██████████	██	██		
	██████████				
	██████████	██	██	██	██████████
	██████████				

Total Page 9 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€
					
					
					
					
					
					
					
					
					

Total Page 10 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€
<u>LOCATION 7: 176mls 600yds - 176mls 1200yds UP</u> <u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		
D521	Removal of existing fence	m	540		
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X154	Palisade black general purpose fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	540	93.00	

Total Page 11 - Carried Forward to Grand Summary					[REDACTED]
Div17 Fencing Bills of Quantities					€
	[REDACTED]				
	[REDACTED]	■	■		■
	[REDACTED]	■	■		■
	[REDACTED]				
	[REDACTED]	■	■	■	■
	[REDACTED]				

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Page 12 - Carried Forward to Grand Summary				[REDACTED]
Div17 Fencing Bills of Quantities				€
[REDACTED]	-			
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	-			
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]		

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total Page 13 - Carried Forward to Grand Summary				[REDACTED]

Cobh





Preamble to the Bill of Quantities

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5 Privately and Publicly Owned Services

The information in the Contract as the whereabouts of existing services and mains is believed to be correct but the Contractor shall not be relieved of his obligations under the Conditions of Contract. The Contractor shall include in his rates and prices for taking of measures for the support of pipes, cables and other apparatus during the progress of the Works and for keeping the Engineer informed of all arrangements he makes with owners of privately owned services, statutory Undertakers and Public Authorities as appropriate and for ensuring that no existing mains and services are interrupted without the written consent of the appropriate authority.

<p>6</p> <p>7</p> <p>8</p> <p>9</p>	<p>COVID-19 Contractors will be required to ensure that the "Works" as designed and set out in the Works Requirements are constructed in strict compliance with the Health and Safety at Work Regulations and subject to HSE guidance in respect of COVID-19. The PSCS must ensure procedures on site adhere to HSE and Irish Government Guidance relating to COVID-19. Contractors will need to ensure full compliance at all times with all public health measures currently in place for all work persons both on and off site. Tenderers must provide supporting detail in their tender response of their policies and proposed procedures and safeguards to ensure that these works can be safely and successfully completed without compromising any of the key health and safety and public health measures. All additional costs associated with implementing COVID-19 procedures are deemed to be included for in the Preliminaries OR in the submitted rates for the individual work items.</p> <p><u>Value Added Tax</u> The rates and prices entered in the Pricing Document shall not include Values Added Tax.</p> <p><u>Instruction to Tenderers</u> The Instructions to Tenderers in the accompanying document shall be carefully noted by intending Tenderers prior to completion of the Pricing Document. Failure to comply with the instructions may lead to invalidation of the tender.</p> <p><u>Reinforcement</u> The cost of chairs, spacer bars or any other form of support necessary to maintain the reinforcement on position is not measured and should be included in the rates for reinforcement.</p>
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			Sub-Total €	TOTAL €
GRAND SUMMARY				
Class A:	General Items	Page 1 - Brought Forward	€	
		Page 2 - Brought Forward	€	€
<u>Fencing</u>				
Location 1	158mls 880yds - 158mls 950yds UP	Page 3 - Brought Forward		€
Location 2	161mls 380yds - 161mls 600yds UP	Page 4 - Brought Forward		€
Location 3	163mls 100yds - 163mls 950yds DN	Page 5 - Brought Forward		€
Location 4	170mls 1000yds - 170mls 1140yds DN	Page 6 - Brought Forward		€
Location 5	173mls 880yds - 173mls 900yds UP	Page 7 - Brought Forward		€
Location 6A	174mls 1550yds - 174mls 1700yds UP	Page 8 - Brought Forward		€
Location 6B	175mls 200yds - 175mls 600yds UP/DN	Page 9 - Brought Forward		€
Location 6C	175mls 200yds - 175mls 600yds DN	Page 10 - Brought Forward		€
Location 7	176mls 600yds - 176mls 1200yds UP	Page 11 - Brought Forward		€
TOTAL (Excl. VAT) - carried to Form of Tender				€

Item	Item Description	Unit	Quantity	Rate	Amount
<u>CLASS A: GENERAL ITEMS</u>					
<u>Contractual Requirements</u>					
A120.1	Insurance of the Works as per Contract	Sum	1		€
A120.2	Employers Insurance as per Contract	Sum	1		€
A120.3	Public liability insurance as per Contract	Sum	1		€
A130	Third Party Insurance	Sum	1		€
A140	Contractor to undertake the role of PSCS for works.	Sum	1		€
<u>Specific Requirements</u>					
A249	Setting-out Engineer required for interpretation of topographical survey, linking into survey via the permanent setting out points.	Sum	1		€
A271	Set up and implement traffic management plans, including all necessary signage, at required sites	Sum	1		€
A280	Attendance of all the Contractors Personnel at a site induction	Sum	1		€
<u>Method-Related Charges</u>					
A311.1	Establishment & removal of site offices (fixed)	Sum	1		€
A311.2	Maintenance of offices for the duration of the works (time-related)	Sum	1		€
A314	Establishment & removal of stores and materials compounds (fixed)	Sum	1		€
A315.1	Establishment & removal of canteen/messroom (fixed)	Sum	1		€
A315.2	Operate and maintain canteen and messroom for the duration of the construction (time-related)	Sum	1		€
A333.1	Delivery & removal of plant (fixed)	Sum	1		€
A333.2	Operate and maintain plant for the duration of the works (time-related)	Sum	1		€
A321.1	Set up electricity supply and standby generator (fixed)	Sum	1		€
A321.2	Temporary lighting for site	Sum	1		€
A322	Water supply for the duration of the construction (time-related)	Sum	1		€
A327.1	Welfare facilities complying with HSE regulations for the duration of the construction (time-related)	Sum	1		€
A327.2	Complying with COVID-19 regulations (see Preamble Item 6)	Sum	1		€

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 1 - Carried Forward to Grand Summary					€
A371.1	<u>Method-Related Charges – Supervision and Labour</u> Mobilisation and demobilisation from the sites (fixed)	Sum	1		€
A371.2	Management and supervision of the contract (time-related)	Sum	1		€
A371.3	Programming and scheduling of the works (time-related)	Sum	1		€
A372.1	Administration of the contract (time-related)	Sum	1		€
A390	Preparation of all Method Statements for approval by the Engineer (fixed)	Sum	1		€
A273.1	Maintenance of access roads and reinstatement of damaged land belonging to IÉ & any third party	Sum	1		€
<p><u>Method-Related Charges–section to be filled by Main Contractor to suit specific needs; Main Contractor to note this is not an exhaustive list</u></p>					

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 2 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
LOCATION 1: 158mls 880yds - 158mls 950yds					
UP					
CLASS D: DEMOLITION AND SITE CLEARANCE					
D100	General clearance, removal of vegetation, trees & stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	50		€
CLASS X: MISCELLANEOUS WORKS					
X1	Fences				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	50		€
Total Page 3 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
LOCATION 2: 161m 380yds - 161m 600yds UP					
CLASS D: DEMOLITION AND SITE CLEARANCE					
D100	General clearance, removal of vegetation, trees and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	200		€
CLASS X: MISCELLANEOUS WORKS					
X1	Fences				
X133	Concrete post and wire fence; height 1.5m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3	m	200		€
Total Page 4 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 3: 163mIs 100yds - 163mIs 950 yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.4		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence; including foundations	m	750		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	750		€
Total Page 5 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 4: 170mls 1000yds - 170mls</u>					
<u>1140yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	110		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X145	Palisade general purpose fence; height 1.8m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	110		€
Total Page 6 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
LOCATION 5: 173mls 880yds - 173mls 900yds					
UP					
CLASS D: DEMOLITION AND SITE CLEARANCE					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence; including foundations	m	80		€
CLASS X: MISCELLANEOUS WORKS					
X1	Fences				
X142	Palisade general purpose fence; height 1.2m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	80		€
Total Page 7 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 6A: 174mls 1550yds - 174mls</u>					
<u>1700yds UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence	m	150		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good	m	150		€
Total Page 8 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 6B: 175mls 200yds - 175mls</u>					
<u>600yds UP & DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	260		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	260		€
Total Page 9 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 7A: 175mls 200yds - 175mls</u>					
<u>600yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence	m	170		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	170		€
Total Page 10 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 7: 176m² 600yds - 176m²</u>					
<u>1200yds UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence	m	540		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X154	Palisade general purpose fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	540		€
Total Page 11 - Carried Forward to Grand Summary					€

Fencing 2020 Division 17
Scope of Works

ISS 2.0

- 1.0 Fencing Specification**
- 2.0 Scope of Works: Division 17 Fencing**
- 3.0 Landowner Agreement Forms**

1.0 Fencing Specification

1.1 General

1.1.1 All works are to be carried out in strict accordance with IÉ Fencing Specification Reference Number CCE-TMS-SPN-037 Version 1.3.

2.0 Scope of Works: Division 17 Fencing

- The contractor must obtain a Permit to Access for the works in accordance with Irish Rail Safety Standard SMS-005 and adhere to this standard along with other mandatory safety legislation
- All contractors must submit a Safety Submission in accordance with SMS-005 with the tender return. The Safety Submission is to include:
 - Signed Safety Statement
 - Method Statement
 - Signed Risk Assessments
 - Record of Competent Staff
 - PPE the contractor will be making available to his/her personnel
 - Contractor Emergency Procedures
 - Work-place Clean-up procedure on completion of the works
 - Compliance Statement to comply with Contractor Safety Regulations.
 - Copy of Insurances
- Before work commences contractors must ensure that they possess a valid Permit to Access and a Purchase Order Number. A Permit to Access is obtained from Iarnród Éireann's Contractor Safety Executive once the Safety Submission has been approved.
- Tenderers to submit their Proposed Programme detailing how they will complete the works prior to the required completion date.
- Tenderers to note that no items raised at the site meeting will have any contractual status whatsoever. All queries arising from the site meeting shall be submitted in writing to Cormac Walsh Cormac.walsh@irishrail.ie and they along with the IÉ responses will be issued to all tenderers.
- Failure to attend site meeting will exclude contractors from tendering for work.
- Property Owner Liaising will be carried out by IÉ prior to works commencing – Agreement of scope will be agreed in writing prior to commencement – no alterations to same are allowable, without consultation with Landowner and IÉ Engineer in Charge. Contractor will liaise with the property owners with regard to access arrangements.
- It is the contractor's responsibility to determine if traffic management is required and if so they shall execute the works in accordance with Chapter 8 of the Traffic Signs Manual, in such cases personnel should have valid and relevant CSCS training to implement the road closure/traffic management, all costs to be included in the BoQ.
- The contractor will ensure all his/her staff are fully trained, hold at least a valid Personal Track Safety(PTS), Safe Pass and Manual Handling certification and be certified to operate any machinery he/she deem necessary as part of the works.
- Any crossing over the railway must be carried out in conjunction with the Iarnród Éireann Engineering Supervisor/Track Safety Coordinator/Lookout.
- Any access to the track by machines will be subject to approval via the Iarnród Éireann Engineering Supervisor/Track Safety Coordinator/Lookout.
- All cables in the area will be marked where required by the relevant departments and the successful contractor must exercise due care in relation to working around these cables.
- Contractor will supply all required materials to complete these works unless otherwise stated.

- Per Way Inspector Jerry Healy (087 2583367) for Division 17 must be given adequate notice before works start.
- No person is allowed to enter Irish Rail property unless the PWI for the relevant Division or the Iarnród Éireann Engineer in charge of the contract has been informed and has granted access.
- All contractors equipment stored on Iarnród Éireann property is stored at the contractors own risk.
- Before commencement of any works the PWI must be given at least 2 weeks notice
- It is the contractors responsibility to arrange protection for the works with the PWI in a timely manner
- No works can take place without the knowledge and consent from the PWI
- All mulching on live railway line is to be done at night or under T3/T2 protection as deemed necessary by the PWI
- The rates submitted should be valid for the remainder of 2020
- Subcontracting of the contract is not permitted see "Conditions of tendering for Contract for fencing Works"
- No variations to the contract fence location, fence type or quantities (as specified in Table 2.1 below) will be permitted unless the Contractor has received a written instruction from the authorised IÉ representative.
- Invoices for completed work/sections of work will not be submitted until the relevant work/sections of work have been checked and verified as being compliant with the Specification by the authorised IÉ representative

Table 2.1 Location & Meterage Table

Location No.	Location	Milage		Line	Quantity (m)	UP/DN	Type
1	Waterloo	158m 880yds	158m 950yds	D – C	50m	Up	2.4m Green Security Palisade
2	Rathpeacon	161m 380yds	161m 600yds	D – C	200m	Up	Conc P & W
3	Shaws	163m 100yds	163m 950yds	D – C	750m	Dn	2.4m Green PVC Security Palisade
4	Glounthane	170m 1000yds	170m 1140yds	C – G	110m	Dn	1.8m Palisade
5	IFI	173m 880yds	173m 900yds	G – C	80m	Up	2.4m Palisade
6a	Ballynoe	174m 1550yds	174m 1700yds	G – C	150m	Up	2.4m Green Security Palisade
6b	Ballynoe	175m 200yds	175m 600yds	G – C	260m	Up & Dn	2.4m Green Security Palisade
6c	Ballynoe	175m 200yds	175m 600yds	G – C	170m	Dn	2.4m Green Security Palisade
7	Cobh	176m 600yds	176m 1200yds	G – C	540m	Up	2.4m BLACK PVC Palisade

Notes on above

D-C – Dublin to Cork

G-M – Glounthaune to Middleton

C-G – Cork Glounthaune

G-C – Glounthaune to Cobh

Site Notes -

- Site 3 – Fence along boundary where new houses are being prepped. Skip existing House on Dn Side
- Site 4 – Continue on existing fence to top of Bridge
- Site 7 – Cobh remove All Cobh Tidy Towns Signage and reinstall as needed following work. Temporary fencing to be placed at the end of each shift to prevent access to the track.

Division 17 - Extent of Works Area

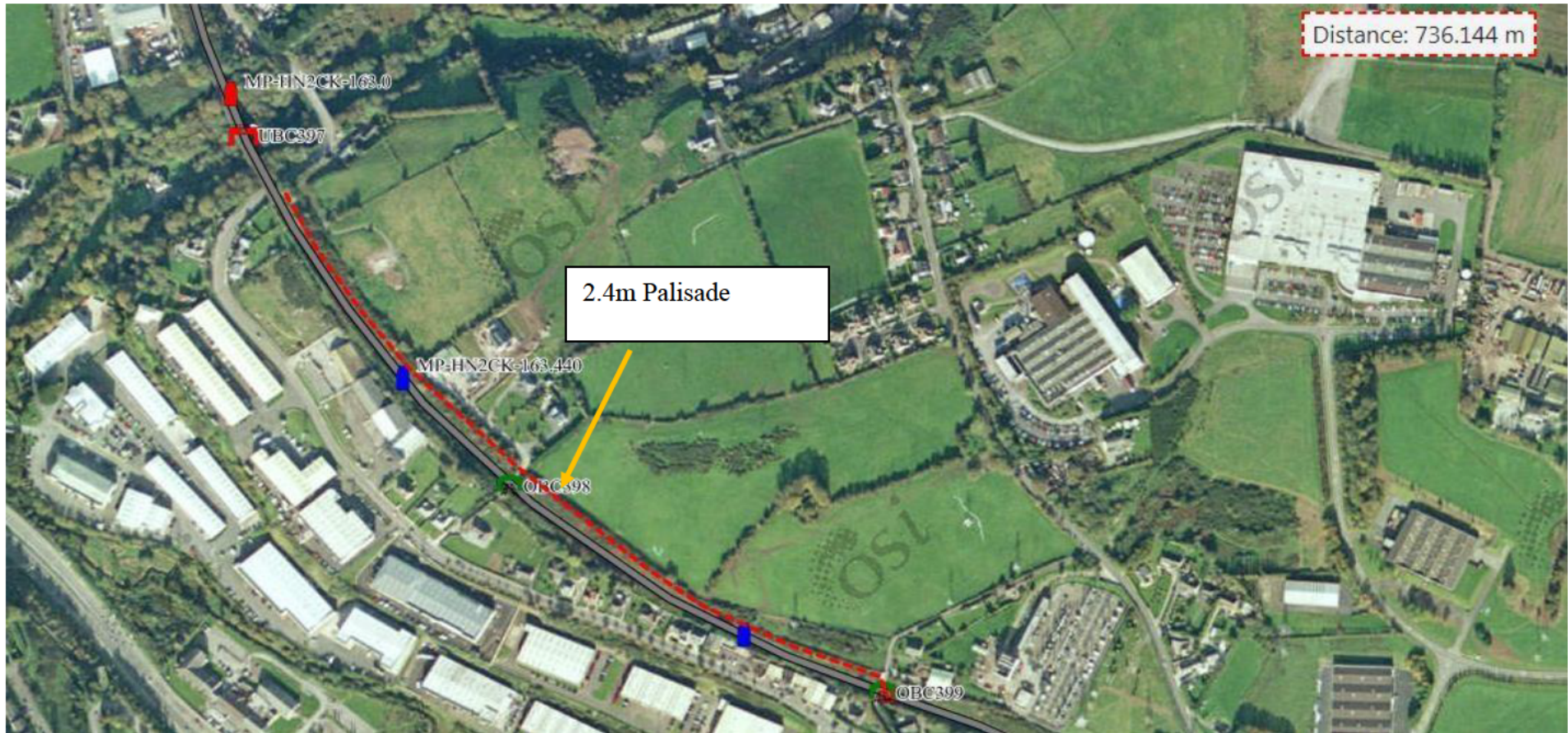
Site 1 - Waterloo



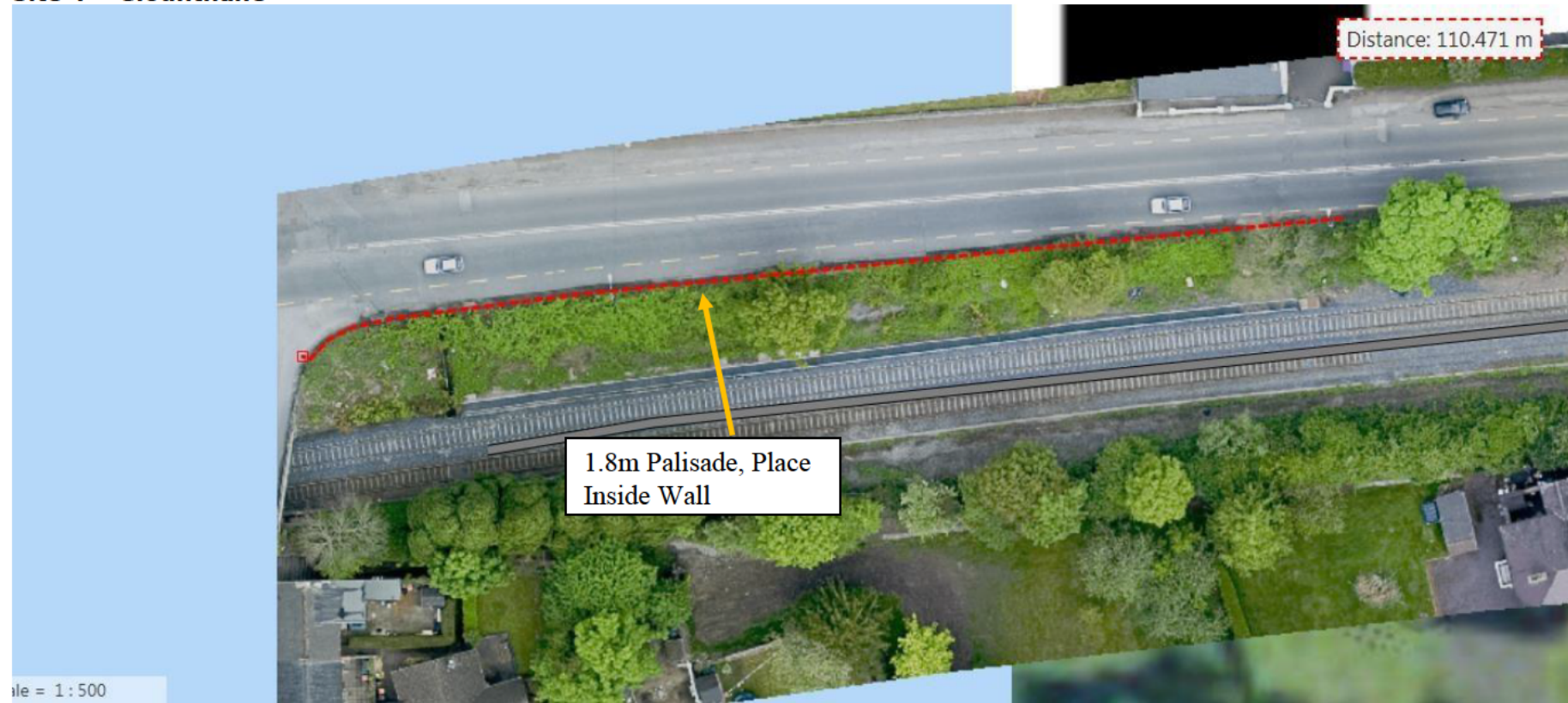
Site 2 - Rathpeacon



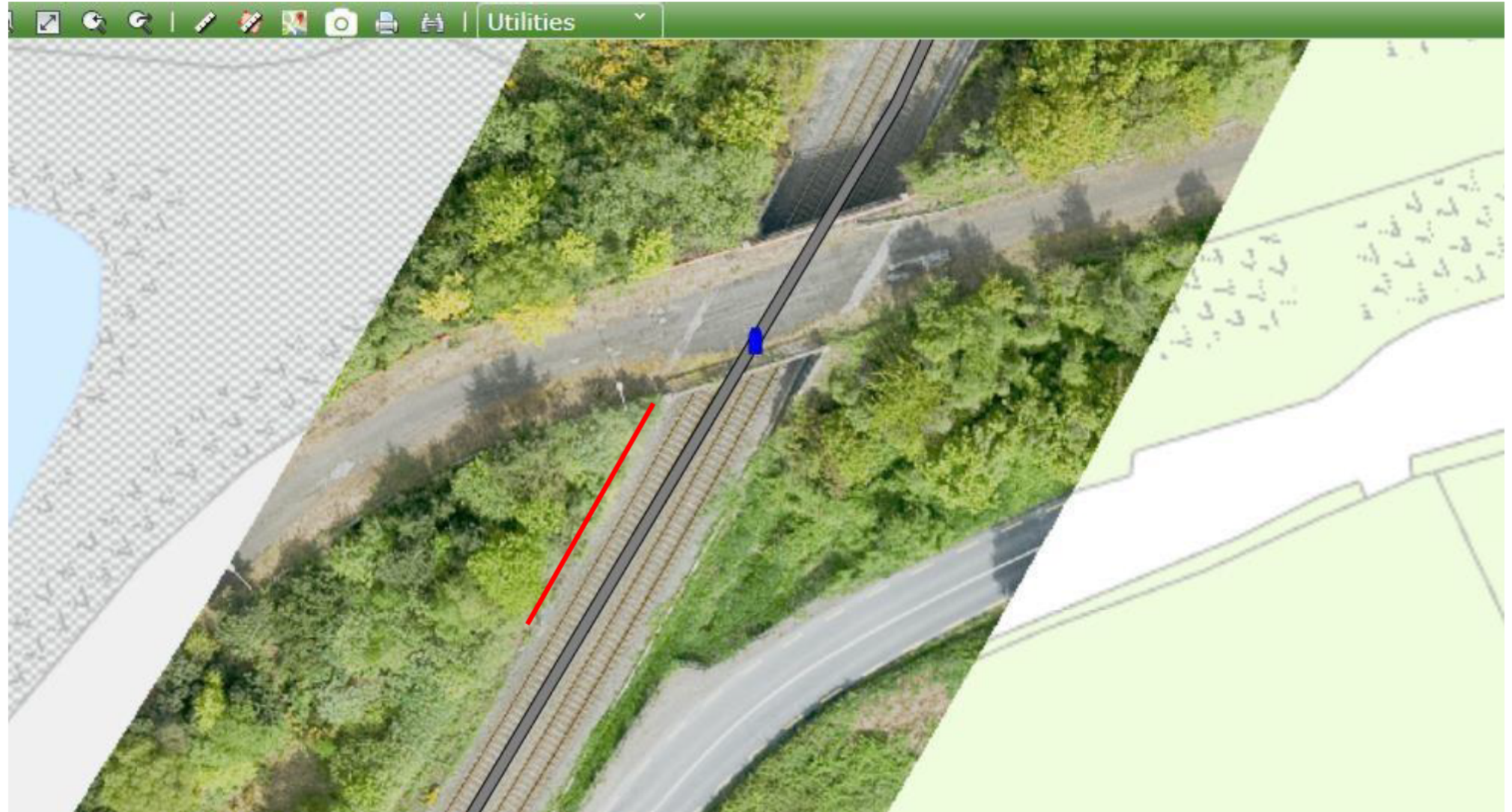
Site 3 - Shaws



Site 4 – Glounthane



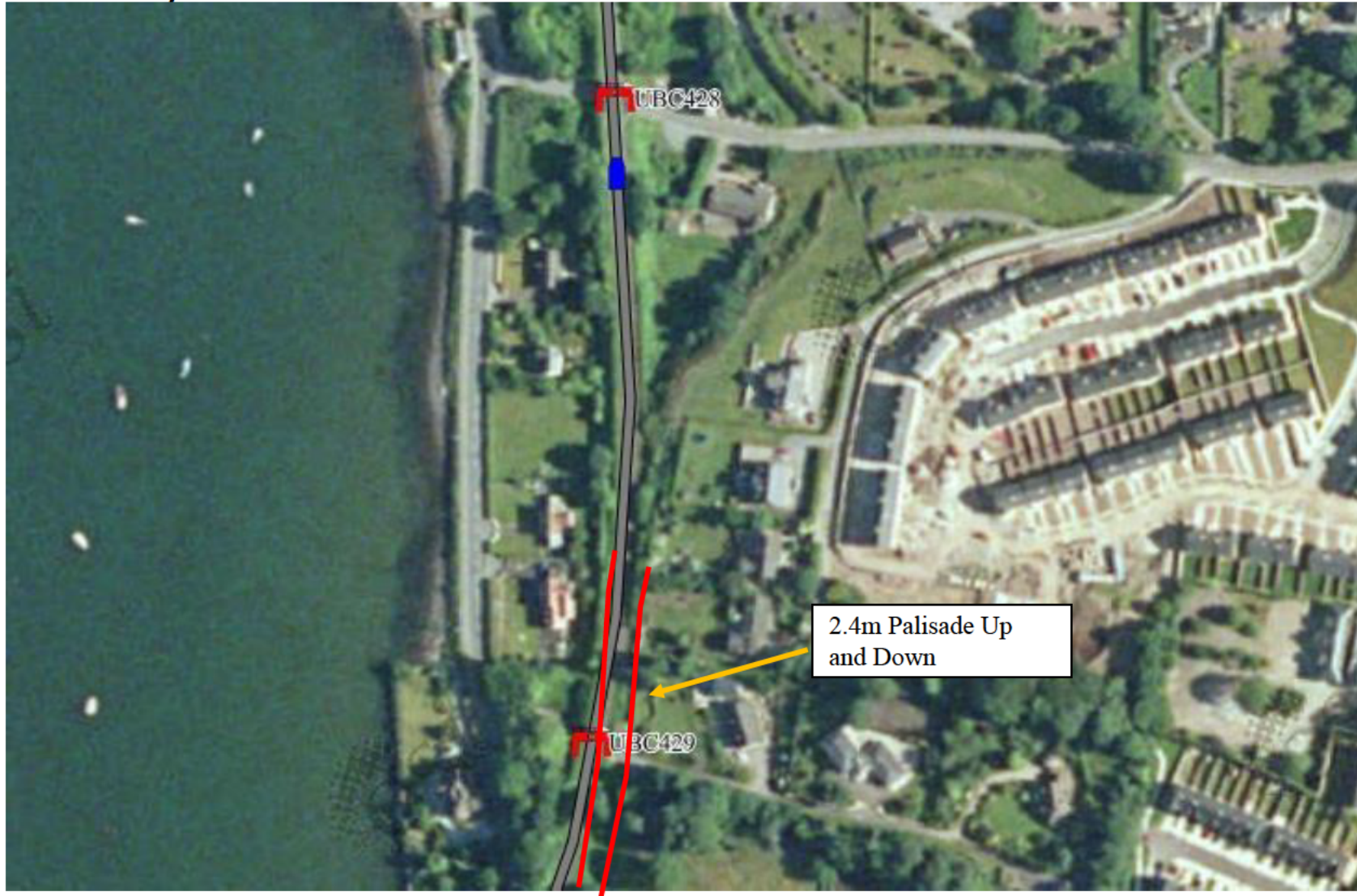
Site 5 - IFI Marino Point



Site 6a - Ballynoe



Site 6b - Ballynoe



2.4m Palisade Up and Down

Site 6c - Ballynoe



Site 7 - Cobh





Reference No.	CCE-SMS-005
Version	5.0
Operative Date	12/03/2018
Status	Live
Prepared by	MN
Checked by	MG
Approved by	CCE SSG

CCE DEPARTMENT

SAFETY MANAGEMENT STANDARD

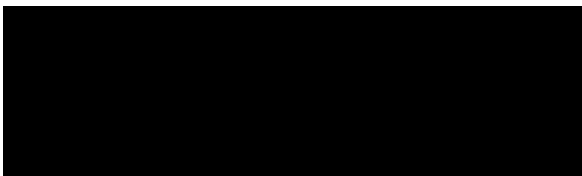
CCE-SMS-005

Contractors Permit to Access

This CCE Department Standard sets out the requirements for the selection, management and monitoring of Contractors within the CCE Department.

This CCE Department Standard is mandatory.

The principles in this Standard are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department and for any Contractor who engages in minor civil engineering work for the CCE department and/or is procured to provide plant or labour services to the CCE Department.



Signed _____ Chief Civil Engineer

This standard, along with all CCE Department Standards is available on the CCE Website. Electronic copies of the Standards are controlled and live. Holders of printed copies of the Standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

**This is a Controlled Document, as presented on-line.
It is Uncontrolled if printed, unless stamped in red ink
"Approved Copy" on all pages.**

Revision Record:

Version No.	Date	Comments
2.0	11/03/13	Adjusted to facilitate IM/RU split
3.0	01/02/14	Adjusted to comply with IM-SMS-005, which was introduced with the EU compliance project.
4.0	07/02/14	"Minor Civil Engineering Works" inserted in clause 1.2.2. Additional clause inserted (1.2.3)
5.0	14/11/2017	Reviewed for CRR Reauthorisation and IM Organisational Change September 2017
		Addition made to clause 1.2.4 to clarify that where a PSCS is appointed and is in receipt of an AF1 form, there is no requirement for a Permit to Access.
		Clause 1.2.5 added regarding technical specialists or technical consultants attending CCE locations
		Clause 1.2.6 added regarding contractors carrying out works that would not be considered minor civil engineering works
		Clause 1.2.7 added regarding the non-applicability of this standard to third parties
		Clause 3.1.9 added regarding permit extension
		Clause 3.10 "Adhere to English as the working language" altered, referencing a contractors English speaking point of contact and the endorsed PTS card for contractors that can not speak English
		Clause 3.3.3 altered mandating the contractors to send a general description of the nature of the works to be carried out

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1 Policy, Scope and Principles

1.1 Policy

- 1.1.1 It is the policy of the CCE Department of Iarnród Éireann to meet the statutory and Iarnród Éireann obligations regarding the management of Contractors and to implement processes and procedures that enables the CCE Department to select and monitor Contractors in the safe execution of their contracts.
- 1.1.2 It is the policy of the CCE Department of Iarnród Éireann that procedures are implemented to enable the CCE Department to procure Contractors in accordance with the requirements of IM-SMS-005.

1.2 Scope

- 1.2.1 This Standard describes how the CCE Department implements a systematic approach to the selection, management and monitoring of Contractors.
- 1.2.2 This Standard covers the selection, management and monitoring of Contractors in all the CCE Department workplaces at all CCE Locations that engage in minor civil engineering works for the CCE department and/or provide plant and labour services for the maintenance and upkeep of the Iarnród Éireann infrastructure only.
- 1.2.3 This standard also applies to contractors who undertake specialist or technical works for the CCE department. In those instances details of specialist or technical certification of staff and equipment and/or a method statement may be required from the Contractor.
- 1.2.4 Large scale Construction Projects carried out by a single Contractor on behalf of Iarnród Éireann are not covered by this standard and will be managed in accordance with the applicable statutory provisions. When a contractor has been formally appointed PSCS for a project and is in receipt of an AF1 form, this standard does not apply.
- 1.2.5 If a technical specialist or technical consultant (e.g. specialist surveyor, a system test engineer, an auditor, etc.) attends to a CCE Location, as a once off visit, with the purpose of doing a specific technical or other scope of work but are doing so under the supervision of an Iarnród Éireann Manager, the “Contractor” is considered a “Visitor” and that Iarnród Éireann Manager takes full responsibility for the safety of such a “Contractor” or “Visitor”. In this case a Permit-to-Access is not required.
- 1.2.6 Where a contractor is undertaking works that could be considered low risk and would not fall under the category of “minor civil engineering works” (as per clause 1.2.2), instruction should be sought from the CCE Safety Manager as to whether a Permit to Access is required.
- 1.2.7 This standard does not apply to third parties who may require access to Iarnród Éireann property. For example, where utility companies or local authorities require access to their assets via Iarnród Éireann property.

1.3 Principles

- 1.3.1 All CCE managers have a duty to promote a safety culture.
- 1.3.2 Line Managers in the CCE Department are directly accountable for the Occupational Health and Safety and for Plant & Machinery Safety for those

workplaces under their control and also for the quality of work that affects Track Safety and Structures Safety in those workplaces. While they can delegate responsibilities in order to ensure Occupational Safety and Plant & Machinery Safety is managed, the accountability cannot be delegated.

- 1.3.3 Line managers will organise their operations so that work is planned such as to ensure the availability of the required resources, competent Contractors, competent people, appropriate equipment and adequate time.
- 1.3.4 In advance of any works taking place, Line Managers must make available to the Contractor any safety related information concerning the risks and hazards applicable to the task(s) the Contractor is procured for, including any risk or hazards specific to the location that the task(s) will be undertaken at to enable the Contractor to conduct their activities in accordance with the applicable statutory provisions.
- 1.3.5 That hazards are identified and risks are assessed and controls and precautionary/mitigation actions are implemented to limit the probability of those risks occurring.
- 1.3.6 Accountable Line Managers monitor the Occupational Health and Safety of the CCE Location that they are accountable for by adhering to a programme of specific Safety Tours.
- 1.3.7 Contractors, contracted to deliver work for Iarnród Éireann, must manage and supervising their own teams as they deem appropriate to ensure workplace Safety.
- 1.3.8 Contractors are fully accountable for ensuring that they and their staff are competent and that they execute their tasks safely and in accordance with all the applicable statutory provisions.
- 1.3.9 Contractors are fully accountable for ensuring that all plant supplied is in safe working order, maintained in accordance with the manufacturers recommendations and certified in accordance with all the applicable statutory provisions.
- 1.3.10 This document forms an integral part of the Contractor's Terms of Contract (Principle).
- 1.3.11 Iarnród Éireann reserves the right to withdraw a Contractor's "Permit to Access" where safety non compliances are observed (Principle).
- 1.3.12 Terminology such as "his" or "manager" in this Standard is not gender specific.

2 Responsibilities

2.1 Responsibilities which are specific to this standard.

- 2.1.1 Accountable Line Managers are accountable for the inspection and monitoring of Contractors, through Safety Tours, at the CCE Location he is responsible for.
- 2.1.2 Accountable Line Managers are accountable for, in advance of any works taking place making available to the Contractor any safety related information concerning the risks and hazards applicable to the task(s) the Contractor is procured for, including any risk or hazards specific to the location that the task(s) will be undertaken at to enable the Contractor to conduct their activities in accordance with the applicable statutory provisions.
- 2.1.3 Local Safety Executives are responsible for inspecting and monitoring Contractors for compliance with the applicable statutory provisions and Iarnród Éireann rules and procedures.
- 2.1.4 The Contractor Safety Manager and his team is accountable for ensuring the documentation, as outlined in this standard is submitted by the Contractor and forwarded to the CCE Contractor Review Panel for review and acceptance before a "Permit to Access" is issued. Permits issued to a contractor allow for supervised access to all CCE locations and are issued for periods not exceeding 12 months.
 - 2.1.4.1 The CCE Contractor Review Panel will consist of at least one member of the CCE Safety Department or the Contractor Safety Manager and a minimum of one member of the CCE Management team nominated by any of the following; the Chief Civil Engineer, an Infrastructure Manager, the Buildings and Facilities Manager or the Production Manager.
 - 2.1.4.2 The CCE Contractor Review Panel will inform the Contractor Safety Manager of the CCE staff involved in each Contractor review.
 - 2.1.4.3 CCE Contractor Review Panel is accountable for ensuring that the Safety Management Submissions provided by Contractors are reviewed and where appropriate accepted.
- 2.1.5 The Safety Manager CCE is accountable for managing, controlling and implementing a Contractor Audit programme within the CCE Department.
- 2.1.6 The Contractor is accountable for executing his tendered scope of work in a Safe manner and in compliance with the applicable statutory provisions.
- 2.1.7 The Contractor must, for every site where works are to take place under the "Permit to Access", appoint a person, known as the "Contractor's Charge Person" acting on the Contractors behalf, with responsibility and accountability for ensuring that works are constantly monitored and checked to ensure that their activities are in compliance with this standard and all of the applicable statutory provisions.
- 2.1.8 The "Contractor's Charge Person" must make themselves known to the IÉ supervisor in charge of the works prior to the commencement of the shift before accessing any CCE Location.

3 Implementation

3.1 How to qualify a Contractor as “Permit to Access”

- 3.1.1 A Contractor that has pre-qualified at procurement stage will be requested to submit the relevant documentation to the Contractor Safety Manager in accordance with Section 3.3 of this Standard.
- 3.1.2 The Contractor Safety Manager will ensure that the documentation detailed in section 3.3 of this Standard is submitted by the contractor.
- 3.1.3 The Contractor Safety Manager will verify that all submitted certification for plant and staff is correct and in date at the time the submission was made.
- 3.1.4 The Contractor Safety Manager will forward the remaining documentation to the CCE Contractor Review Panel for review and acceptance before a “Permit to Access” is issued.
- 3.1.5 The CCE Contractor Review Panel will ensure that the Safety Management Submission provided by the Contractor is reviewed and where appropriate accepted.
- 3.1.6 The CCE Contractor Review Panel will advise the Contractor Safety Manager in writing whether or not the submission is accepted or if more information is required. (Appendix 4)
- 3.1.7 Provided that all information submitted is deemed as accepted by the CCE Contractor Review Panel, the Contractor Safety Manager, on behalf of the CCE Contractor Review Panel, will issue the Contractor with a “Permit to Access”.
- 3.1.8 The Contractor Safety Manager will advise Line Managers when a Contractor has been issued with a “Permit to Access” and the duration of same.
- 3.1.9 If it arises that a contractor is in the process of renewing a permit and works have commenced or are about to commence, the Contractor Safety Manager, with prior agreement of the CCE Safety Manager, may extend the existing permit for a maximum of seven days, to allow the renewal process to be completed.

3.2 What accountability goes with “Permit to Access” status of Contractors

- 3.2.1 A Contractor that receives a Permit to Access to work for the Iarnród Éireann CCE Department;
 - 3.2.1.1 Retains total accountability for the implementation of legislation in relation to the occupational safety of his employees and the works he contracted for.
 - 3.2.1.2 Must ensure that any employees used by the Contractor secure the appropriate safety briefings provided by Iarnród Éireann in advance of any work being undertaken.
 - 3.2.1.3 Ensure that competence cards/certificates are produced to the Iarnród Éireann Accountable Line Manager or his representative on site during the briefing process and are available at all times for auditing purposes.
 - 3.2.1.4 Must advise the Contractor Safety Manager of any additions or alterations to the original Safety Management Submission in relation to staff competency or plant certification at least 7 calendar days prior to the staff or plant in question accessing any CCE location.
 - 3.2.1.5 Must ensure that staff or plant not provided for in the submission as outlined in 3.3 or have not been notified to the Contractor Safety Manager at least seven calendar days in advance are not presented for work at any CCE location.

- 3.2.1.6 Must ensure that the certification in the submission for plant and staff is maintained for the duration of the “Permit to Access” and details of alterations / revisions / re-certification forwarded to the Contractor Safety Manager.
- 3.2.1.7 Must ensure that a Contractor Charge Person acting on behalf of the Contractor is provided at the site of work ensuring that works are constantly monitored and checked so that activities are in compliance with this standard and all of the applicable statutory provisions. Specifically;
 - 3.2.1.7.1 To relay the instructions of the Iarnród Éireann Accountable Line Manager or his representative on site to the Contractor’s personnel and for ensuring that these instructions are carried out.
 - 3.2.1.7.2 To ensure that the scope of work is controlled, monitored and supervised to the extent that any Hazards and Risks can be identified and Risk Assessed and contained without resulting in an Accident, inclusive of hazards advised by the Iarnród Éireann Accountable Line Manager or his representative on site.
 - 3.2.1.7.3 To advise and inform the relevant IÉ representative of any hazards that the Contractor’s activities might pose to persons or to Iarnród Éireann plant other than the Contractor’s own personnel or plant.
 - 3.2.1.7.4 Ensure that all plant and equipment used by the Contractor is secured and locked at the end of each working shift.
 - 3.2.1.7.5 Ensure that all plant and equipment that may pose a risk to the operational railway from trespassers is removed at the end of each working shift.
 - 3.2.1.7.6 The “Contractor’s Charge Person” must present himself to the IÉ supervisor prior to entering any CCE location and must be present at all times when work is being carried out by the Contractor’s personnel.
 - 3.2.1.7.7 Where and when agreed with the Iarnród Éireann Accountable Line Manager or his representative on site, the role of “Contractor’s Charge Person” can be transferred to another competent person working for the Contractor.

3.3 “Safety Management” submissions

- 3.3.1 A Contractor may not seek a “Permit to Access” unless they have pre-qualified at procurement stage and have met all criteria set out in the pre-qualification questionnaire.
- 3.3.2 A Pre-qualified Contractor may be requested to submit a “Safety Management” submission.
- 3.3.3 The “Safety Management” submission must be made (in electronic pdf “soft” copy) to the Contractor Safety Manager. When sending the submission the contractor should also provide a cover note providing a short description of the general nature of the works to be carried out for Iarnród Éireann during the currency of the “Permit to Access”.
- 3.3.4 The “Safety Management” submission will consist of a single file that contains the following documents:
 - 3.3.4.1 Written Safety Statement.
 - 3.3.4.1.1 The Contractor will submit the current written and signed Safety Statement of his company which must comply as a minimum with the provisions of Section 20 of the Safety, Health and Welfare at Work Act 2005. The Safety Statement submitted must have been reviewed by the contractor within the preceding 12 months.

- 3.3.4.1.2 The Safety Statement submitted by the Contractor must reflect that the activities undertaken by the Contractor will be conducted in a railway environment.
- 3.3.4.1.3 The Safety Statement submitted by the Contractor must contain Risk Assessments (in accordance with Section 19 of the Safety, Health & Welfare at Work Act 2005) for each of the activities identified.
- 3.3.4.2 Record of Competent Staff
 - 3.3.4.2.1 The Contractor shall ensure that his personnel are trained, competent and medically/physically fit to conduct the planned work in accordance with legislative requirements and Iarnród Éireann personal track safety requirements.
 - 3.3.4.2.2 If working on or near a running rail line contract staff should have a valid Personal Track Safety (PTS) Certificate for which they are required to be medically certified to hold. The standards for such medical certification are available from Iarnród Éireann.
 - 3.3.4.2.3 The Contractor shall provide an excel spreadsheet register of staff and pdf soft copies of training/certification of all personnel that satisfies both the requirements of the applicable statutory provisions and IE requirements.
 - 3.3.4.2.4 In addition Contractors must provide copies of current training certification for all staff in Personal Track Safety and Manual Handling. Manual Handling training and certification must be achieved within the previous 3 years.
- 3.3.4.3 Record of Plant and Machinery Certification
 - 2.1.1.1.1 The Contractor shall provide copies of all certification relating to plant/machinery and lifting equipment that satisfies the requirements of the applicable statutory provisions.
 - 2.1.1.1.2 The Contractor shall ensure that all road rail plant detailed on the Safety Submission is fully compliant with CCE Standard IPLM 5001 and maintains compliance with the standard for the duration of the Permit-to Access.
- 3.3.4.4 Contractor Emergency Procedures -In addition to the requirements of the Safety, Health and Welfare at Work Act 2005 the Contractor:
 - 3.3.4.4.1 Must describe how its team will respond to emergency environmental incidents and outline response methods and mitigation measures to be implemented in the likelihood of such an event
 - 3.3.4.4.2 Must describe how its team will remove items of large plant or equipment from the railway in the event of a break down or malfunction.
- 3.3.4.5 Workplace Clean-up
 - 3.3.4.5.1 The Contractor shall describe how the work area will be cleaned up on completion of the work.
- 3.3.4.6 Written Method Statements
 - 3.3.4.6.1 Depending on the Scope of Work the Contractor may be requested to submit a site specific Method Statement at the time of the original submission or at any time within the duration of the issued Permit-to Access. The CCE Department will advise the Contractor when a Method Statement is required.
 - 3.3.4.6.2 As a minimum the submitted Method Statement must contain the following information:

- 3.3.4.6.2.1 A step-by-step explanation of how the scope of work is to be done with special reference at every step to the safety considerations (should typically follow a recognised code of practice where available, e.g. use of PPE, safe use of tools and equipment, etc.).
- 3.3.4.6.2.2 An explanation of the procedures that will be followed to ensure the work will be carried out in a safe manner (e.g. procedure for the safe disposal of chemicals, etc.).
- 3.3.4.6.2.3 An explanation of the specific risk control measures that will be active during the period of the works and which will detect Hazards and Risks to safety. These will be in the form of signed risk assessments.
- 3.3.4.6.2.4 An explanation of how the Contractor will control the whole scope of work in order to ensure that the work is done safely and the provisions of the Iarnród Éireann “Permit to Access” Standard will be adhered to and not breached.
- 3.3.4.6.2.5 A detailed explanation of how the Contractor will control work involving the particular risks as defined (but not limited to) in the Safety Health and Welfare at Work (Construction) Regulations 2013 in order to ensure that the work is done safely and the provisions of the Iarnród Éireann “Permit to Access” Standard will be adhered to and not breached.
- 3.3.4.6.2.6 An explanation of how the written “Method Statement” and all other Safety information (e.g. Risk Assessments, Method Statement, etc) will be communicated to all the Contractor’s staff.

3.4 What does a “Permit to Access” mean to a Contractor

- 3.4.1 A Permit to Access allows the Contractor supervised access to all CCE locations for a period of up to 12 months.
- 3.4.2 Having been issued with a “Permit to Access”, the Contractor does not have the right to start any works or go “on or near the line”.
- 3.4.3 Work can only be started with the approval of the local Accountable Line Manager or his representative on site in the relevant location, following the briefing of the associated Method Statement/Safe System of Work and Risk Assessments. See Appendix 1 – Permit-to-Access

3.5 Maintaining a “Permit to Access” database

- 3.5.1 The Contractor Safety Manager is responsible for maintaining a “Permit to Access” database, Specifically:
 - 3.5.1.1 That a register of all Safety Management Submissions and accepted Permits-to-Access is maintained.
 - 3.5.1.2 Advise the relevant contractor and line managers when a “Permit to Access” has been issued
 - 3.5.1.3 To notify Accountable Line Managers per CCE Location, through an accessible list or database, which Contractors have live permits.
 - 3.5.1.4 That a complete a record of Permits-to-Access (issued and lapsed) and associated “Safety Management” submissions are kept for a period of 6 years.
 - 3.5.1.5 The Contractor Safety Manager shall advise the contractor annually to resubmit the safety submission for permit renewal 30 days prior to the expiry of the existing permit.

3.6 Monitoring and Inspecting of Contractors

- 3.6.1 The Accountable Line Manager responsible for the CCE Location is accountable for ensuring that all Contractors working in or at that CCE Location are regularly monitored and inspected according to this Standard and CCE-SMS-001, Specifically:
 - 3.6.1.1 That Contractors are regularly inspected on Safety Tours (as in CCE-SMS-008) to ensure they work strictly in accordance with the method statement/safe system of work for the activity being undertaken.
 - 3.6.1.2 That no Contractor is allowed to do any work without an in-date "Permit to Access".
 - 3.6.1.3 The contractor will be monitored by IM CCE staff who must be satisfied that the work undertaken is fit for purpose.
 - 3.6.1.4 A Permit-to Access may be subject to change or termination where a serious breach (or consistent minor breaches) of Safety & Health rules and or regulations are observed.

3.7 Auditing of Contractors

- 3.7.1 The local Safety Executive for the CCE Location is accountable for regular audits of those Contractors working in or at the CCE Location.
- 3.7.2 The Safety Manager CCE will manage, control and implement a Contractor Audit programme within the CCE Department and will record the findings of such audits including details of any non compliance and follow up with corrective actions where required.
- 3.7.3 The Safety Manager CCE will periodically monitor the safety performance of Contractors engaged in works on behalf of the CCE Department. Details of major and / or consistent non-compliance will be recorded and raised at local safety meetings with CCE management and at the Contractor Safety Review Workshop.
- 3.7.4 Local Safety Executives for the CCE Locations as part of their normal auditing programme will do unannounced audits on Contractors; recording findings on the Safety Executive Audit Form (See Appendix 2) and advise the Safety Manager CCE as to findings from these audits, specifically:
 - 3.7.4.1 The local Safety Executives will record observed non-compliances and issue corrective action notices accordingly, copies of all audits conducted and corrective action notices issued must be forwarded to the Safety Manager CCE.
 - 3.7.4.2 The local Safety Executive will bring details of Contractor non-compliance to the Safety Review Workshops for discussion with the accountable line manager for that location.
 - 3.7.4.3 Any observed / reported major non-compliance must be notified to the accountable line manager and the CCE Safety Manager as soon as is practicable.
 - 3.7.4.4 Copies of all audits conducted must be sent timely to the Contractor Safety Manager.

3.8 Corrective Action Notice

- 3.8.1 A Corrective Action notice is a document issued to the Contractor at the time of audit. The document will outline the observed non-compliance and required corrective actions to address the issues detailed. (See Appendix 3)

- 3.8.2 A written Corrective Action Notice will be issued to the nominated member of the Contractor's staff and a formal response must be returned to Iarnród Éireann within 48 hours of issue. (the time detailed on the Corrective Action Form initiates the 48 hour time frame)
- 3.8.3 The Corrective Action Notice will be signed by the CCE Safety Executive undertaking the audit and must also be signed by the Contractor Charge Person.
- 3.8.4 Corrective Actions Notices may be issued subsequent to reported breaches where an investigation has shown that a breach has occurred.

3.9 Contractor's Personnel will adhere to Iarnród Éireann "Drugs and Alcohol Policy"

- 3.9.1 The Contractor shall ensure that the Contractor's personnel will not be under the influence or in possession of alcohol or illegal substances while on an Iarnród Éireann site or CCE Location.
- 3.9.2 The Contractor shall ensure that medication does not adversely interfere with a person's ability to carry out work safety.
- 3.9.3 The Contractor shall ensure that the Contractor's personnel is briefed on the Iarnród Éireann "Drugs and Alcohol Policy" and advised that they are subject to the terms of this Policy while working on Iarnród Éireann premises.
- 3.9.4 Contractors must have procedures in place to deal with these requirements.

3.10 Adhere to English as the working language

- 3.10.1 The Contractor shall ensure that the use of language does not affect the Contractor's obligations to execute the scope of work safely, Specifically:
 - 3.10.1.1 The Contractor shall ensure that, when non-English speaking personnel are employed by the Contractor, a sufficient number of English speaking personnel are available to interface with Iarnród Éireann.
 - 3.10.1.2 The Contractor shall ensure that, when non-English speaking personnel are employed by the Contractor, all the required safety documentation, safety instructions or safety signage will be translated effectively into the other language.
 - 3.10.1.3 Non English speaking PTS holders must have their PTS card endorsed with: "Must be accompanied by an English speaker".
 - 3.10.1.4 To ensure the safety of all non-English speaking Contractors while on IÉ Infrastructure all Contractors supplying employees who are non-English speaking to carry out work 'on or near the line' are obliged to provide as a minimum one English speaking employee who will act as a 'point of contact' for IE Staff while delivering Site Safety Briefings or additional Safety Briefings which may affect the Contractors employees whether directly or indirectly.
 - 3.10.1.5 This 'point of contact' can be a direct employee of the company who has a working knowledge of English or if required the services of an interpreter may be employed. If the services of an interpreter is required, this person must also be in receipt of Personal Track Safety (PTS) card and other legislative requirements when 'on or near the line' (the Contractor must bear all costs in relation to this persons employment).

- 3.10.1.6 This 'point of contact' name and contact details should be formally submitted to IÉ at the planning process. These details should be confirmed at the Control Room process prior to works taking place and forwarded to the IÉ staff member with responsibility for delivery of the required Site Safety Briefings for the planned works.
- 3.10.1.7 Following the Control Room process the Contractors 'point of contact' should be furnished with the details of the locations for IÉ site Safety Briefings and the contact details of the IE staff member delivering the required Site Safety Briefings.
- 3.10.1.8 If for any reason staff from either of the parties referenced in above are changed, the other party must be informed.

3.11 Young Persons and Special Needs Persons

- 3.11.1 The Contractor shall obtain written permission from Iarnród Éireann before allowing persons under the age of 18 or any Special Needs Persons to work on any "Permit to Access".
- 3.11.2 The Contractor shall submit a written Risk Assessment of the specific activities or the Young Persons or the Special Needs Persons to Iarnród Éireann that will include specific Risk Controls related to briefing, informing and controlling such activities.

3.12 Safety Consultation

3.12.1 If representations have to be made by the Contractor to Iarnród Éireann on matters relating to site safety, the Contractor or the “Contractor’s Charge Person” or the Contractor’s staff Safety Representative must approach the Iarnród Éireann Accountable Line Manager or his representative on site.

3.13 Personnel availability for matters related to safety

3.13.1 The Contractor shall make his personnel available, at no additional contract cost, for any matters related to safety as would be expected in the normal running of any contract, for example:

3.13.1.1 Making Contractor’s personnel available for Iarnród Éireann’s safety induction at site (typically 1 – 2 hours or as required depending on the scope of work),

3.13.1.2 Making Contractor’s personnel available for doing Risk Assessments, safety reviews and/or any other Safety Management task required under the contract or under the “Permit to Access”.

3.14 Accident reporting

3.14.1 The Contractor shall immediately report all accidents (whether minor or those incurring lost time), dangerous occurrences and “near misses” as soon as possible to the IE Line Manager or his representative on site.

3.14.2 Contractors must carry out their own formal investigation into all accidents, dangerous occurrences and “near misses”, and submit written reports to the Iarnród Éireann CCE Department in addition, Contractors must co-operate with and assist Iarnród Éireann in its own investigation.

3.14.3 Reportable accidents and dangerous occurrences must be reported directly by the Contractor to the Health and Safety Authority in accordance with Part X of the Safety, Health and Welfare at Work (General Application) Regulations SI 44 1993. However, the Contractor must provide a copy of the statutory IRI or IR3 form (as appropriate) to the Iarnród Éireann CCE Department.

3.14.4 Accidents involving contractors must be reported by the IE Line Manager to the Safety Manager CCE and the Contractor Safety Manager.

3.15 Contractor’s Insurance

3.15.1 All Contractors must have minimum insurance cover as required by the procurement documentation.

3.15.2 Certificates detailing the Contractor’s insurance cover must be made available by the Contractor for examination by Iarnród Éireann and should be checked with the Contractor and Supplier Insurance Procedure.

4 Contractor Information

4.1 Iarnród Éireann Safety Management System

- 4.1.1 The Contractor is entitled to examine the Iarnród Éireann Safety Management System for the CCE Location where the work is to be conducted.
- 4.1.2 The Contractor can review the Safety Statement at the local Safety Station or make a request to the Line Manager accountable for that CCE Location. He can request any appropriate risk assessments, safety systems of work or local specific risk information from the accountable line manager for that CCE location.
- 4.1.3 Occupational Features Forms detailing site specific hazards will be made available to Contractors engaged in works on behalf of the CCE Department.
- 4.1.4 Safe systems of work and associated documentation will be made available to Contractors engaged in works in on behalf of the CCE Department.

5 Contractor Safety Review Workshop

5.1 Schedule and Objectives of the review

- 5.1.1 A Contractor's Safety Review Workshop is held once every two months. This review is recorded in minutes. The "Contractor's" Safety Review Workshop is chaired by the of Safety, Infrastructure and is conducted as an active workshop with the following key objectives:
 - 5.1.1.1 To review Contractor's related Hazards from either findings from Safety Executive Site Audits, other Site Audits, Hazard Report Forms, Accident Reports, findings from Risk Assessments, audits of Contractors, employee feedback or any other source (e.g. audits).
 - 5.1.1.2 To review mitigations already implemented and identify or suggest any further actions required.
 - 5.1.1.3 To review the progress of the implementation of all the related actions for any other Contractor's Hazards previously identified.
- 5.1.2 The "Contractor's" Safety Review Workshops should be set for specific dates during the year and these dates should not be varied.
- 5.1.3 The Head of Health & Safety, IM will determine the dates of all "Contractor's" Safety Review Workshops.

End of Standard

6 Appendix 1-Permit to Access

CCE Permit-to-Access – (Name of Contractor) January 2014



Contractor Name	XXXX
Address	XXXX
	XXXX
County	XXXX

Dear Contractor Name

Please be advised that your Safety Submission in accordance with CCE-SMS-005 has been approved by a CCE Contractor review panel and you are now permitted supervised access to all CCE locations for the period detailed below.

Contractor Name	Service Details	Permit Period	Permit Unique No
XXXX	Provision of heavy plant	1 st January 2014 to 31 st December 2014	PTA - 01(2014) MNPH

Note that only staff and or plant detailed in this submission is permitted to access CCE Locations under the following conditions:

- Permission has been granted by a CCE supervisor to enter the CCE Location
- Permission has been granted by a CCE supervisor to commence work
- The appropriate railway protection arrangements are in place and approved by a CCE supervisor

Any additions or amendments must be notified to the Contractor Safety Manager at a minimum of seven calendar days prior to entry to any CCE work location.

Please ensure that this Permit-to-Access is issued to all Contractor Charge Persons for auditing purposes. This Permit-to-Access may be subject to change or termination where a serious breach (or consistent minor breaches) of Safety & Health rules and or regulations are observed.

Issued by:

XXXX

Date:

Contractor Safety Manager

CCE-SMS-005 Permit-to-Access

8 Appendix 3–Corrective Action Notice Form

Corrective Action Notice Form Number:

CCE	CA0001
-----	--------

CCE DEPARTMENT **CORRECTIVE ACTION NOTICE FORM (C.A.N)**

AUDIT DETAILS

Site Audit Form Number: _____

Audit Date: _____

Location (Division & mileage): _____

Details of Work (Relaying, muck digging etc.): _____

CONTRACTOR DETAILS

Contractor Name: _____

Permit to Work Number: _____

Work Description (Plant/Labour?): _____

DETAILS OF CONTRACTOR NON-COMPLIANCES

ACTIONS (Please note: If dealt with on site or if further action was required by IE Contract Safety Executive).

SAFETY EXECUTIVE SIGNATURE

Print Name: _____

SIGNED: _____

9 Appendix 4 Contractor Review Panel Form

Contractor Review Panel – (Name of Contractor)



Contractor Safety Manager,

FAO	Contractor Safety Manager
Address	Track & Signals Building
	Inchicore Works
	Inchicore
Date	XX/XX/XXXX

Please be advised that a CCE Contractor Review panel was held on XXXX as detailed below.

Contractor Details	Panel Members	Review Location

The Safety Statement submitted by the Contractor was reviewed for compliance with the requirements of Section 20 of the Safety, Health and Welfare at Work Act 2005.

REVIEW DETAILS	Submitted		Adequate	
	Yes	No	Yes	No
Protective & Preventative Measures & Resources				
Emergency Procedures				
Duties of Employees – employer co-operation				
Names and titles of persons with specific duties				
Arrangements for Safety Reps & Consultation				
Details of annual review – update and briefing				
Section on specific risks and controls				
Safety Statement reflected works to be undertaken on the railway.				
COMMENTS / REASON FOR NON APPROVAL				

The Safety Statement submitted by the Contractor was reviewed for compliance with the requirements of Section 19 of the Safety, Health and Welfare at Work Act 2005.

REVIEW DETAILS	Submitted		Adequate	
	Yes	No	Yes	No
Submitted in accordance with Section 19 Of the Act				
Relevant to a railway environment				
Reflect the type of service being supplied by the Contractor				
COMMENTS / REASON FOR NON APPROVAL				

This Submission is approved / not yet approved.

Please arrange issue of a 12 Month Permit-to Access to the above contractor to enable supervised access to CCE Locations.

Please advise the Contractor that additional information as detailed above is required

CCE-SMS-005 Contractor Review Panel Form



Reference No.	IPLM-5001
Version	1.3
Operative Date	1 st January 2015
Status	LIVE
Prepared by	[REDACTED]
Checked by	[REDACTED]
Approved by	[REDACTED]

CCE Department

Plant and Machinery Standard

I-PLM-5001

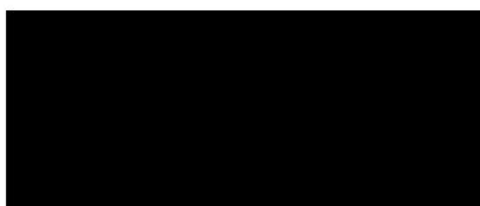
Certification of Road/Rail Vehicles

This CCE Department Plant & Machinery Standard sets out the design and maintenance requirements for road/rail vehicles intended for use on Iarnród Éireann.

This CCE Department Standard is mandatory.

The principles applied in this Plant and Machinery Standard are approved by the Head of Department and therefore constitute mandatory statutory practices, which apply throughout the CCE Department.

Signed



Chief Civil Engineer

This standard, along with all CCE Department Standards, is available on Iarnród Éireann SharePoint. Electronic copies of the standards are controlled and live. Holders of printed copies of the standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

This is a Controlled Document, as presented on-line.

**It is uncontrolled if printed, unless endorsed
on this page with the approved and completed
"Controlled Copy" label/stamp**

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1 POLICY AND PRINCIPLES

1.1 Policy

- 1.1.1 Road/rail vehicles (RRVs) must be designed and maintained in a manner that does not jeopardise the safe and efficient operation of the railway.

1.2 Principles

- 1.2.1 Road/rail vehicles must meet the criteria laid out in this standard before they can be operated on Iarnród Éireann (IÉ) track.

- 1.2.2 RRV operators must be competent to operate their vehicles when on IÉ track. An operator of a vehicle must be in possession of:

- An up-to-date PTS (personal track safety) certificate.
- An up-to-date Safe Pass Certificate.
- Construction Skills Certification Scheme (CSCS) relevant to the specific vehicle.
- An IÉ-approved certificate of competence to operate RRVs. This may be provided by IÉ-approved training providers.
- The appropriate PPE (personal protective equipment).

- 1.2.3 The term **RRV** can cover a wide variety of vehicles and it would be difficult to adequately cover every vehicle in this standard. Where an owner or operator is unsure of how to apply this standard, clarification should be sought from IÉ or its representative before approvals begin.

- 1.2.4 This standard must be applied in full to all RRVs on the IÉ network.

- 1.2.5 Certification will be issued for an RRV when it:

- (a) Meets the technical criteria set out with this standard.
- (b) Has the appropriate mandatory certification under Irish legislation including:
 - signed certificates from the manufacturer specifying the safe working load (SWL) of each RRV, taking account of different configurations of the RRV and any additional safety provisions
 - the 12-monthly Report of Thorough Inspection by an independent examiner (not the owner) for each RRV
 - the Weekly Inspection Report by the operator/driver for each RRV

- 1.2.6 When the requirements of 1.2.5 are complied with, an Engineering Acceptance Certificate will be issued by IÉ or its representative. Each Engineering Acceptance Certificate will identify the vehicle, define the vehicle configuration, and identify the maintenance documentation and any limitations applicable for the safe use of the vehicle. Copies of the Engineering Acceptance Certificate must be carried on all vehicles at all times.

- 1.2.7 The expiry date for Engineering Acceptance Certificate must be displayed on a label on each side of machine, adjacent to the data panel. A sample of the label is shown in Appendix A. The label must be yellow with black text, and the IE Logo included. The label must fit a sheet of A4 paper, minimum size 230mm x 150mm. The label must be a sticky label, not a paper print.
- 1.2.8
- 1.2.9 Modifications to vehicles must also be in accordance with this standard and assessed by IÉ or its representative. A new Engineering Acceptance Certificate will be issued for the modification.
- 1.2.10 An application for derogation will need to be made to IÉ if any RRV is not able to fully meet the requirements of this standard or if it is not thought reasonable to comply with the standard.
- 1.2.11 Approved equipment must meet the requirements of Safety, Health and Welfare at Work (Construction) Regulations 2006 and Safety, Health and Welfare at Work (General Application) Regulations 2007 - Use of Work Equipment.
- 1.2.12 Terms such as craftsmen in this standard are not gender specific.

2 ABBREVIATIONS

- 2.1.1 The established definitions of all permanent way terminology used in standards and procedures are set out in *CCE-TMS-399 Glossary of Civil and Permanent Way Engineering Terms*. The abbreviations below are of particular relevance to this standard:
- **CSCS** – Construction Skills Certificate Scheme
 - **EMC** – electromagnetic compatibility
 - **GVW** – gross vehicle weight
 - **HLD** – height limiting device
 - **IÉ** – Iarnród Éireann
 - **MEWP** – mobile elevated work platform
 - **OHLE** – overhead line equipment
 - **PPE** – personal protective equipment
 - **PTS** – personal track safety
 - **RCI** – rated capacity indicator
 - **RRV** – road/rail vehicle
 - **SWL** – safe working load
 - **WLL** – working load limit

3 STRUCTURAL DESIGN

3.1 Rail Wheels and Axles

- 3.1.1 Rail wheels and axles must be ferrous and their structural integrity proven as fit for purpose for the intended use of the RRV. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.1.2 For new vehicles of new design, this must be demonstrated by calculation.
- 3.1.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration will be through written evidence of identical vehicles with the same or worse operating conditions.
- 3.1.4 For vehicles of less than 1 tonne GVW, wheels can be made from aluminium but they must comply with the above structural requirements.
- 3.1.5 Rail wheel loading must meet the requirements of the table below.

Table 1: Rail Wheel Diameter Requirements

Wheel diameter in new condition (mm)	Maximum static load per wheel (tonnes)
≥840	11
840> - ≥760	10
760> - ≥680	9
680> - ≥630	8.25
630> - ≥550	7.25
550> - ≥470	6
470> - ≥390	5
390> - ≥330	4.25
330> - ≥270	3.5
270> - ≥210	1.5
210> - ≥130	1

- 3.1.6 Rail wheels must be one of the following profiles: UK/ P1, UK/ P10 or UIC 510-2. They must be between 127 mm and 140 mm wide. The back-to-back flange dimension must be 1524 mm +0.0/-0.5.

3.2 Rail Gear

- 3.2.1 The structural integrity of the rail gear must be proven as fit for purpose within the intended use of the RRV. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.2.2 For new vehicles of new design, this must be demonstrated by calculation.
- 3.2.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration will be through written evidence of the safety record of identical vehicles with the same or worse operating conditions.

- 3.2.4 All rail gear must be positively locked by design or protected by hydraulic check valves. This locked state must be maintained if the operating system fails.
- 3.2.5 Vehicles which have an active type suspension, such as Unimogs, must have a system to warn the operator of a pressure loss and allow the vehicle to be safely brought to a stand.

3.3 General Structural Integrity

- 3.3.1 If the base vehicle is an existing CE-marked road vehicle (in accordance with EU Directive 93/68/EEC), any modifications for its use on rail must be assessed as fit for purpose by IÉ or its nominated representative.
- 3.3.2 Purpose-built rail vehicles such as trailers need full assessment to prove that their structural integrity is fit for the intended use of the vehicle. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.3.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration must be through written evidence of the safety record of identical vehicles with the same or worse operating conditions.

4 STATICS AND DYNAMICS

4.1 Statics

- 4.1.1 All vehicles must have adequate static wheel loadings to ensure the vehicle's stability both on level track and with the worst-case operating conditions of maximum cant, twist and gradient.
- 4.1.2 All vehicles must maintain a minimum of 600 kg load on the lightest rail wheel with the worst-case track conditions. Where this is not possible due to the design and base weight of the vehicle, a technical justification and dynamic test on worst-case conditions must be undertaken to prove the vehicle can operate safely.
- 4.1.3 Vehicles with wheel loads of less than 2 tonnes cannot be expected to operate train-operated points.

4.2 Dynamics: Travelling Mode

- 4.2.1 In the travel mode with the worst-case operating conditions, a vehicle must be capable of travel on any combination of the following track features:
- 165 mm cant
 - 80 m radius curve
 - 1-in-29 gradient
 - Track twist as in Appendix B
- 4.2.2 When a vehicle cannot be safely used on the track conditions detailed in 4.2.1, the worst-case conditions which it can safely negotiate must be clearly identified and listed on the vehicle's Engineering Acceptance Certificate.

4.3 Dynamics: Working Mode

- 4.3.1 In the working mode with the worst-case operating conditions, a vehicle must be capable of negotiating any combination of the following track features:
- 165 mm cant
 - 80 m radius curve
 - 1-in-29 gradient
 - Track twist as in Appendix B
- 4.3.2 When a vehicle cannot be safely used on the track conditions detailed in 4.3.1, the worst-case conditions which the vehicle can safely negotiate must be clearly identified and listed on the vehicle's Engineering Acceptance Certificate.
- 4.3.3 Vehicles that have a lift-and-carry duty must be restricted to a maximum working speed of 6 km/h (when operating in that mode) and be under the control of the RCI (rated capacity indicator) or below the SWL (safe working load) of the vehicle.

4.4 Dynamic Testing, Including Speeds

- 4.4.1 All vehicles must undergo a dynamic test at an IÉ-approved location. This test should cover a multitude of track conditions and features that the vehicle should negotiate at a variety of speeds.
- 4.4.2 As a minimum, the test should cover the following, as the site will allow:
- Gradients
 - Points and crossings
 - Welded and jointed track
 - Curves and curve transitions
 - Level and canted track
 - Vehicle speeds
- 4.4.3 The maximum speed on rail for any road/rail vehicle must be 32 km/h. If the vehicle is capable of exceeding 32 km/h on rail, it must be:
- Fitted with a device that prevents the vehicle from exceeding 32 km/h on rail, or
 - Fitted with an audible warning device which warns the operator that the vehicle speed has exceeded 32 km/h.
- 4.4.4 This maximum speed will need to be reduced when travelling in reverse should the visibility be reduced. The reverse movement must be controlled by a ground observer or rear control position.
- 4.4.5 Operators may need to adjust their maximum speed to take into account rail-head conditions, e.g. adhesion problems.
- 4.4.6 The maximum speed over points, switches and crossings must be 8 km/h.
- 4.4.7 The maximum speed through raised checkrails must be 2 km/h.

4.5 Road Wheels

- 4.5.1 RRVs must have a means of locking the road wheels in the straight-ahead position when on rail.

5 GAUGE

5.1 Travel Mode

- 5.1.1 Vehicles which require access to all parts of the infrastructure must be constructed within W492/39 or UK W6 gauge when in the travel mode, as set out in Appendix C.
- 5.1.2 Due to gauging problems with road wheels in some areas, the preference is for high-ride vehicles. Low-ride vehicles are not permitted to be used unless they meet the full requirements of this technical standard and have written permission to operate from IÉ or its representative.
- 5.1.3 Any parts of the vehicle that can exceed its normal swept envelope need to be adequately protected to ensure no inadvertent movement out of the gauge envelope. This protection must not require power to hold assemblies in position and must be fail-safe.
- 5.1.4 A vehicle which exceeds this gauge will need specific route approval by Iarnród Éireann.
- 5.1.5 No vehicle is permitted to travel under live OHLE unless it is within the permitted gauge as set out in 5.1.1 for the travel mode. The Engineering Acceptance Certificate must define if the vehicle can travel under live OHLE.
- 5.1.6 Vehicles permitted to travel under live OHLE must protect personnel with an all-metal roof.
- 5.1.7 All parts of the vehicle must be suitably earth bonded to the rail, maximum value 0.150 ohms.

5.2 Working Mode

- 5.2.1 A vehicle which has an increased working envelope over its travelling envelope must have the maximum amount of gauge exceedance detailed in its Engineering Acceptance Certificate. This information must be used in a site-specific method statement to decide if the vehicle is permitted to work with adjacent lines open to traffic and can clear any infrastructure features.
- 5.2.2 Any vehicle controls which move the vehicle out of its travel position must be protected against inadvertent operation. Additional movement-limiting devices may be required.
- 5.2.3 A vehicle which has an increased working envelope over its travelling envelope is not permitted to work under live OHLE without an approved vehicle height limiting device (HLD) being fitted and operational. The use of this HLD must ensure a minimum of 700 mm clearance from all live parts of OHLE. The Engineering Acceptance Certificate must define the minimum height of OHLE that permits work and any work must only be undertaken in accordance with a safe procedure.

- 5.2.4 Note: Other IÉ permits are required to work under OHLE.
- 5.2.5 Vehicles permitted to work under live OHLE must protect personnel with an all-metal roof.
- 5.2.6 All parts of the vehicle must be suitably earth bonded to the rail, maximum value 0.150 ohms.

6 BRAKING

6.1 Parking Brake

- 6.1.1 A parking brake must be fitted and must be capable of holding the fully laden vehicle on a 1-in-29 gradient.
- 6.1.2 If the parking brake of a trailing load cannot be applied from the cab of the towing vehicle, then the parking brakes which can be applied from the cab should hold the vehicle and trailer(s) on a 1-in-29 gradient while the operator leaves his cab to apply the parking brakes of the remaining vehicles.
- 6.1.3 To demonstrate the compliance of the parking brake, an alternative to a physical test on a 1-in-29 gradient is a horizontal pull-test of the vehicle that needs to be 6% of its GVW (gross vehicle weight) without any wheel revolving.

6.2 Service Brake

- 6.2.1 The service brake system on a vehicle can be one of the following:
 - A single braking system which is fail safe (i.e. loss of braking medium applies the brake) and capable of stopping the vehicle, and the vehicle with any trailing load, in the stopping distances shown in Table 2 below
 - Two independent braking systems which are capable of stopping the vehicle, and the vehicle with any trailing load, in the stopping distances shown in Table 2 (one of these systems may be the parking brake)

Table 2: Stopping Distances

Vehicle Speed (km/h)	Stopping Distance (m)
8	6
16	18
24	36
32	60

- 6.2.2 All braking tests should be conducted on level dry rail, and it is expected that 3 stops will be required in each condition to prove compliance.

6.3 Trailer Brakes

- 6.3.1 Trailers must be fitted with a spring-applied fail-safe parking brake. The operating medium can be air or hydraulic.
- 6.3.2 In the event of a trailer breakaway, the parking brake must be able to stop the vehicle within the distances shown in Table 2 above. If a hydraulic system is used, a 90° elbow must be used on the parking brake line next to the headstock and this should fail first in the event of a breakaway.
- 6.3.3 For the parking brake, hydraulic systems must use a 3/8 Faster VFB type connector which does not allow disconnection with the brakes released (i.e. brake control pressurised). The male connector must be fitted to the vehicle and the female connector to the trailer. A separate pressure relief device may be required, depending on the brake system design, to release any residual pressure.
- 6.3.4 Air systems must use a standard readily available type connector. The orientation of the connectors must be such that, when disconnected, the trailer brake system should vent to atmosphere and apply the brake.
- 6.3.5 All vehicles must display working pressure labels adjacent to all brake connection points to ensure compatibility between vehicles.

7 ELECTRICAL AND SAFETY

7.1 Electromagnetic Compatibility (EMC)

- 7.1.1 CE-marked base vehicles with electrical systems of 28 V do not require EMC testing as they will be compliant with EMC directives.
- 7.1.2 Any electrical components added to a vehicle must be assessed for compliance to the relevant IÉ EMC standard or the whole vehicle must be reassessed.

7.2 Safety Systems

- 7.2.1 **Movement Limiting Devices:** Any movement limiting device which is used to control vertical or horizontal movement must comply with this standard. It may be that a mechanical stop is not adequate for some applications as the inertia of the structure is too great. Both an electrical speed restrictor and a mechanical stop may be required.
- 7.2.2 **Mechanical Limiting Devices:** Mechanical limiting devices must be able to withstand all foreseeable forces and the design must be such that no single point failure will lead to an unsafe condition.
- 7.2.3 **Electrical Limiting Devices:** The design of electrical limiting devices should be such that no single point failure of the system will fail to an unsafe condition.
- 7.2.4 **Hydraulic Limiting Devices:** The design of hydraulic limiting devices should be such that no single point failure of the system will fail to an unsafe condition.

8 LABELS

8.1 Data Panel

8.1.1 As a minimum, a weatherproof, adhesive data panel must be displayed on both sides of a road/rail vehicle showing the following details:

- This vehicle is not permitted to work on or near the line when outside a possession
- Maximum travelling speed is XX km/h
- Maximum working speed is XX km/h
- Maximum speed through points and crossings is 8 km/h
- Maximum travelling cant is XXX mm
- Maximum working cant is XXX mm
- Maximum travelling gradient is 1-in-XX
- Maximum working gradient is 1-in-XX
- Minimum travelling radius is XX m
- Minimum working radius is XX m
- Trailer brake working pressures is XX bar
- Maximum non service braked towed load
- This vehicle can/cannot be used under live OHLE
- This vehicle can/cannot be used adjacent to a running line
- Vehicle identification number (996099 XXXX-X)
- Vehicle serial number
- Vehicle owner and telephone number

8.1.2 The panel must be red on a white background and clearly visible 2 m from the vehicle. The panel must fit a sheet of A4 paper, minimum size 230mm x 150mm. The panel must be a sticky label, not a paper print.

8.1.3 A sample data panel is shown in Appendix D.

8.2 Excavators

8.2.1 Excavators must display the following additional details:

- This vehicle is permitted to tow/propel XX tonnes
- SWL

8.3 Dumpers

8.3.1 Dumpers must display the following additional details:

- Tare weight is XX tonnes
- Laden weight is XX tonnes

- Max weight is XX tonnes

8.4 Mobile Elevating Work Platforms (MEWPs)

8.4.1 MEWPs should display the following additional label:

- MEWP EN280 identification plate showing maximum wind condition
- Max load in basket is XXX kg

8.5 Trailers

8.5.1 Trailers must display the following additional label:

- Tare weight is XX tonnes
- Laden weight is XX tonnes
- Max weight is XX tonnes

9 FIRE

9.1 General

9.1.1 Vehicles must be fitted with a fire extinguisher in all personnel areas. These must be capable of dealing with any types of fire likely to break out.

10 PERSONNEL AREAS

10.1 Requirements

10.1.1 Personnel travelling on RRVs must have a fixed seat position with suitable restraint. There must be adequate separation from tools and materials.

10.1.2 The seat must minimise the vibration to which the operator is subjected, and ergonomic non-slip handles and footsteps must be provided at all operating positions where required.

10.1.3 Any barriers provided to separate personnel from tools and materials must be capable of withstanding all likely load cases generated in worst-case conditions.

10.1.4 Personnel travelling in areas outside the operating cab must have a means of cutting drive traction, applying the brake and sounding the warning horn.

10.1.5 Access/egress from the vehicle must be from both sides of the vehicle or directly into the centre of the track. Access from only one side of the vehicle is not preferred but, where this occurs due to base vehicle design, additional door safety chains and labels are required to prevent inadvertent access to adjacent open tracks.

- 10.1.6 Operators must have a clear and unhindered view of all travel and work areas in both the forward and reverse directions. Where travel in the reverse direction does not have good visibility, reverse movements must be controlled by a ground operator, rear operator position or CCTV. Where CCTV is used, it must have adequate clarity to enable the driver/operator, when reversing, to see (from his or her own seat without slewing) any object at a distance of 1 metre away from the rear of the machine and 1 metre above ground level. This must take into account colour definition and all light conditions with regard to signs, features and signals.
- 10.1.7 If additional persons are carried remotely from the operating (driving) position, they must have a means of operating the warning horn and have communication with the driving position.
- 10.1.8 Where provision is made for more than one person to be carried in the driving cab, the following criteria must be met:
- a) Cab Access and Egress – A defined safe means to enter and leave the vehicle for all seating areas.
 - b) Seat Positioning –
 - A securely fitted operator seat to incorporate backrest and sufficient seat or bench width to accommodate an average-sized person.
 - When a second seat is fitted, it must be securely fixed and consist of a bucket seat which includes a backrest and, if possible, arm support. It should be of sufficient size to accommodate an average-sized person, and be fitted with suitable restraint.
 - c) Cab Dimensions – Cab size to be sufficient to accommodate the seat(s) as defined above.
- 10.1.9 The Engineering Acceptance Certificate for the vehicle must clearly state the permitted number of personnel to be carried in the vehicle cab.

11 VISIBILITY AND AUDIBILITY

11.1 Visibility

- 11.1.1 All vehicles must be predominantly yellow to one of the following colours: RAL 1003, RAL 1004, RAL 1018, RAL 1021, RAL 1023, BS 4800 Item 08E51, BR81 Item 202, NCS target value 1080 – Y10R or 1475 – Y11R and EC 222.69.79.
- 11.1.2 The yellow areas as a minimum should be the entire ends of the vehicle. Where the vehicle has a rotating superstructure, this must be entirely yellow except for access steps, locking devices and handrails which must be highlighted in the appropriate colour, preferably white.
- 11.1.3 All vehicles must be fitted with chassis-mounted marker lights that are capable of displaying white in the direction of travel and red to the rear. When stationary, marker lights should display red at both ends. Lights must auto-switch unless the switch is accessible in the cab of the vehicle. Vehicle Road Lights shall be inhibited while in rail mode.

- 11.1.4 Markers lights should be visible from 70 m during daylight hours.
- 11.1.5 Driving vehicles are also required to have additional headlights giving sufficient light for the operator to see any obstructions in the direction of travel. At night, this light should be capable of illuminating retro-reflective signs from a distance of 100 m and be sufficiently visible from the track to give 25 seconds warning of approach to ground workers.

11.2 Audibility

- 11.2.1 Driving vehicles should be equipped with a warning horn operable from the driving position and personnel areas to warn ground workers of vehicle movement.
- 11.2.2 This warning horn should be a minimum of 80 dB (A) and give a sound pressure increase of at least 10 dB over the working sound pressure level of the base machine.
- 11.2.3 The warning horn and base machine sound pressure measurements must be taken 1 m from the vehicle at 1.5 m height and at 4 equi-spaced positions around the vehicle.
- 11.2.4 A Reversing Alarm shall be fitted, with the ability to be switched off, if required.

12 TOWING AND PROPELLING

12.1 Requirements

- 12.1.1 Any vehicle which is permitted to tow or propel trailers must be limited to a maximum towing weight of 40 tonnes and two trailers, or a lower limit that the vehicle can safely haul and brake while meeting the braking requirements of this standard. In a situation where a parking brake system is used, the towing weight must be restricted to the gross vehicle weight of the towing vehicle.
- 12.1.2 Any vehicle that can tow or propel other vehicles must be fitted with a breakaway device to audibly warn the operator in the event of a breakaway. This device must be clearly audible to the vehicle operator.

13 VEHICLE SPECIFICS

13.1 Excavators

- 13.1.1 When used on rail, RRVs are likely to have two modes of operation: digging type duties and lifting duties.
- 13.1.2 Digging duties are conventional excavator type duties using buckets etc. It is normal not to use the RCI during these duties as the transient dynamic forces can be high and unpredictable.
- 13.1.3 Vehicles that are permitted to undertake lifting duties are required to have an RCI fitted and operational. An exception is allowed when the maximum SWL is less than 1 tonne in all positions while still maintaining a minimum of 600 kg on the lightest wheel.

- 13.1.4 If the activities involve the lifting of track panels using RRVs, then the requirements of departmental standard *I-PLM-5200 Tandem Lifting of Plain Track Panels* must be complied with.
- 13.1.5 The RCI, when fitted, must comply with EN 12077 – 2:1998 and the operator indicator with BS 7262.
- 13.1.6 When in lifting mode, the RCI must display a blue light which is visible from the outside of the vehicle.
- 13.1.7 The RCI must not allow any movement that would permit the vehicle and its load to go into a less safe state.
- 13.1.8 The RCI must control the SWL of the excavator so that, on all track conditions, the excavator cannot lift more than 67% of the point of zero rail wheel load on the lightest wheel with the axles unlocked and the vehicle undertaking a lift-and-carry duty. This can be increased to 90% when the vehicle has its axles locked and is static. It must give adequate audible warning to the operator of approach to this limit and inhibit further movement when the limit is reached.
- 13.1.9 From the testing and programming of the RCI, a set of duty charts should be produced showing the load limits for each lift point and in each position (see Appendix E). These duty charts should be used when planning lifts and method statements.
- 13.1.10 All load lifting points must be clearly marked with their SWL.
- 13.1.11 Any part of the hydraulic system which can fail and cause inadvertent movement of the vehicle or load must have burst protection.

13.2 Mobile Elevating Work Platforms (MEWPS)

- 13.2.1 When persons are lifted above ground level, the vehicle must meet the requirements of a valid EN280 certificate, except for wheel loads where a conflict occurs between this standard and EN280.

13.3 Attachments

- 13.3.1 Attachments can occur in many forms. It is difficult to cover all of them in this standard but they generally take power from a prime mover and are towed or lifted.
- 13.3.2 Attachments with three or more wheels must be classed as a trailer and meet the requirements of the relevant clauses of this standard.
- 13.3.3 All attachments to comply to IE standard and specification.
- 13.3.4 Attachments that are lifted by the prime mover must be used under the control of the RCI and any other safety systems, and shall not exceed the vehicle's capacity.
- 13.3.5 Where specified, attachments shall have a current certificate of engineering design approval, approved test and/or thorough examination by an approved body.
- 13.3.6 Attachments shall only be used and maintained in accordance with approved manufacturer's or approved engineering designer's safety and operating instructions.

- 13.3.7 The use of quick hitches will be in accordance with the manufacturer's operating and maintenance instructions and the rated lifting capacity must not be exceeded. Quick hitches must not be used with attachments that lift persons above ground level.

13.4 On/Off Tracking

- 13.4.1 Each RRV must have a documented procedure for on tracking and off tracking to ensure the following:
- It does not cause any damage to itself or the infrastructure while on tracking or off tracking
 - It does not get into an unstable condition
- 13.4.2 During the on and off tracking process, RRVs must at all times have at least one braked wheel (with the brakes applied during the road / rail transition phase), sufficient to hold the vehicle in contact with either the rail or ground on the most adverse gradient on which it can be on and off tracked. This state must be achieved by engineering means (for example an interlocking system) and not be reliant on procedural controls.
- 13.4.3 For high-ride vehicles where the rail gear movement is controlled from an operator position, the first rail axle lifting device or bogie must be fully deployed and locked in position before any subsequent rail axle lifting device or bogie is capable of being operated. There must also be a visual indication (i.e. an illuminated LED) at the operator position when axles are in the locked position.

13.5 Emergency Recovery

- 13.5.1 Each RRV must have a documented recovery system that can recover a vehicle into its travel position and allow it to be moved from the infrastructure within one hour.

14 MAINTENANCE PLANS

14.1 Principle

- 14.1.1 Each vehicle must have an approved maintenance plan that will ensure the vehicle and associated equipment is kept in compliance with this standard throughout its working life.

14.2 Documentation

- 14.2.1 Maintenance plans must be controlled documents kept within the operator's quality system and should include the following:
- A unique identifier, issue and/or revision and date
 - Approval and authorisation by appropriate persons
 - A numbered list of contents
 - Numbered sections to facilitate referencing, including job descriptions

- Pages identified so that it is obvious if any are missing or out of date
- 14.2.2 The plan must also undergo an annual review and indicate this review period. This review should consider the following:
- Vehicle performance
 - Change of use patterns
 - Manufacturer's/converter's advice
 - Directives from the infrastructure owner
- 14.2.3 Records must be maintained to demonstrate that the maintenance plan is being followed.

14.3 Contents of a Maintenance Plan

- 14.3.1 Each maintenance plan must include details on the following:
- Staff
 - Facilities
 - Base vehicle document
 - Frequency of maintenance
 - Job description
 - Component-specific requirements

14.4 Staff

- 14.4.1 The maintenance plan must contain a statement on the minimum level of staff competence engaged in RRV maintenance. The statement should include the following or similar clauses:
- In order to carry out this maintenance plan in a manner that will achieve the required safety and quality, the following minimum level of staff competence is required.
 - For all activities, the person leading the task must be able to follow and carry out the instruction detailed in this document.
- 14.4.2 All safety-critical work must be carried out by competent persons.
- 14.4.3 Staff undertaking this work must have been trained and hold the following competency:
- Approved for safety-critical work
 - Apprentice-trained craftsmen

14.5 Facilities

- 14.5.1 The maintenance plan must contain a statement defining the minimum facilities required to undertake RRV maintenance. For example, this could include:
- Clean, dry, covered accommodation for dealing with wheelsets, bearings, mechanical hydraulic and electrical components etc.

- Adequate illumination for inspection of components, bogies and underframes
- Cleaning facilities which will not cause damage to the components
- Handling facilities for removal and refitting of components such as rail bogies and engines
- Protection from the weather of vulnerable areas of the vehicles and their components
- Any specific requirements additional to those listed on the applicable job description
- A suitable length of straight level rail track for carrying out brake tests

14.6 Base Vehicle Document

- 14.6.1 If the maintenance requirements of the base vehicle are not included in the primary document, the relevant document(s) must be referenced.
- 14.6.2 In the case of a vehicle that is a conversion or derived from a non-rail vehicle, the manufacturer’s manual for the base vehicle should form part of the maintenance plan. If it is not practical to include the content of the document, it should be referenced in the maintenance plan.
- 14.6.3 Wherever possible, the location of the relevant sections of the base vehicle manual should be given in the appropriate parts of the primary document.

14.7 Maintenance Frequency

- 14.7.1 The maintenance plan must include a statement of the time period for each activity and a good method is the use of a code letter as shown in Table 3 below.

Table 3: Sample Period Codes

Exam Code	Calendar Time
A	Daily
B	Weekly
C	6-monthly
D	12-monthly

14.8 Job Description

- 14.8.1 Each maintenance plan must contain a job description for each component or system that requires attention. The examples below also include the frequency of maintenance.

Table 4: Sample Maintenance Checklist A

Component	Activity	Exam Code			
		A	B	C	D
Rail Marker Lights	Test	✓	✓	✓	✓
	Clean		✓	✓	✓

Component	Activity	Exam Code			
		A	B	C	D
Wipers	Test	✓	✓	✓	✓
Safety Labelling	Examine	✓	✓	✓	✓
Leaks of Inflammable Fluids	Beneath vehicle	✓			
	Each system		✓	✓	✓
Underframe and Structural Components	Check for obvious defects	✓	✓		
	Examine			✓	✓
Bogies and Rail Guidance Systems	Check for obvious defects	✓	✓		
	Examine			✓	✓
Yellow Panels	Clean		✓	✓	✓
	Check for deterioration			✓	✓
Brake Systems	Simple checks	✓	✓	✓	
	Stopping Distance Test				✓
Rail Wheels and Axles	Check for obvious defects	✓	✓		
	Examine and gauge			✓	✓
Rail Wheel Bearings	Check for rumble/play			✓	✓
Road Tyres on Friction Drive	Examine		✓	✓	✓
	Check pressure		✓	✓	✓
Rail Gear Check Valves	Test				✓

14.8.2 It is also good practice to further identify each element or job within each system as in the example below.

Table 5: Sample Maintenance Checklist B

Job	Activity	Exam Code			
		A	B	C	D

BRAKES

B01	Brakes – Check	*	*	*	
B06	Brake Fluid Level – Check		*	*	*
B07	Brake System Hoses and Pipework – Examine			*	*
B08	Air Tanks – Drain		*	*	*
B10	Parking Brake – Test				*
B11	Footbrake – Test				*
B12	Brake Linings – Check				*

CAB AND SUPERSTRUCTURE

C01	Windscreen Wipers – Check	*	*	*	*
C03	Cab Door Security – Check		*	*	*
C04	Access Panel Security - Check		*	*	*
C05	Yellow Paintwork – Check		*	*	*
C06	Safety Labels – Check		*	*	*

C11	Screen Wash Bottle – Refill		*	*	*
C15	Machine General Condition – Check	*			

WHEELS

W01	Road Wheel Nuts and Tyres – Check	*			
W02	Rail Wheels – Check	*	*		
W12	Rail Wheels and Bearings – Examine			*	*
W21	Road Wheels and Tyres – Examine		*	*	*
W22	Rail Wheels Back to Back – Gauge				*

14.9 Examples of Component-Specific Requirements

(a) Brakes

14.9.1 Each maintenance plan must detail brake test instructions. As a minimum, there must be an annual brake test of the vehicle and any trailing load in worst-case conditions. In addition to checking that the vehicle meets the stopping distance requirements, its performance should also be compared to previous results. If these differ significantly, further checks must be conducted.

14.9.2 Parking brakes can be tested by applying a pull force to the vehicle equivalent to 6% of its GVW. The vehicle should be able to hold this pull force without a wheel rotating.

(b) Rail Wheels

14.9.3 The maintenance plan must detail the maintenance requirements of rail wheels and detail the wear limits for that particular wheel type. These requirements should at least detail minimum wear diameters, maximum size of defects (including flats, cavities, cracks and false flanges) and back-to-back dimension.

(c) Road Wheels

14.9.4 When vehicles are used in high-ride mode with road wheels driving and braking the rail wheels, it is also important to define the maintenance requirements for the road tyres. This should include minimum wear limits, tyre type, tread pattern and interference with the rail wheel.

15 REVISION HISTORY

<i>Issue No and Date</i>	<i>Section No and Reason for Change</i>
1.0, 01/06/2009	Original issue
1.1, 12/08/2010	Section 1.2: removal of reference to standards not yet issued Review Section removed (previously Section 15)

1.2, 30/06/2011	Revised operative date 30 th June 2011 - all double line routes or greater January 2013 - all other single routes Change to the wording in clause 13.2.1
1.3, XX/XX/2012	The term Acceptance Engineering Certificate replaces certificate of competence Change to the wording in clauses: 10.1.7, 11.1.1, 11.1.2, 12.1.1 New Clauses: 1.2.7, 8.1.2, 10.1.8 and 10.1.9; 13.4.2, 13.4.3 and 14.2.3 New Section: 13.5 (previously part of 13.4) New Appendix A New Appendix D

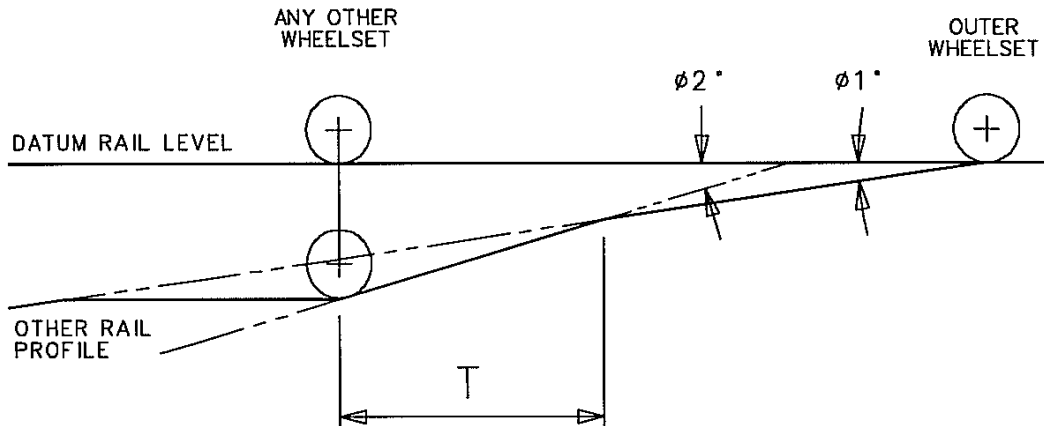
APPENDIX A EXPIRY DATE LABEL FOR ENGINEERING CERTIFICATE OF ACCEPTANCE

A label showing the expiry date for the Engineering Certificate of Acceptance is required on both sides of an Iarnród Éireann certified road/rail vehicle, adjacent to the data panel.

The label below is a sample given for guidance. Please refer to Section 1.2 of this document.



APPENDIX B TRACK TWIST MEASUREMENTS



- f1 = Long wave length track twist angle between running rails = 1:300
- f2 = Short wavelength track twist angle between running rails = 1:150
- T = Semi-span of short wavelength discontinuity - 6m

The short wavelength discontinuity can occur at any position relative to the vehicle as the vehicle moves over it.

Track twist is where one wheel is effectively in a dip, as shown in the diagram above. Most possession-only rail vehicles have a wheel base of less than 6 m, in which case the amount of the dip is a simple calculation:

$$\text{dip (mm)} = \text{wheelbase (mm)} / 150$$

Where the vehicles has a wheel base greater than 6 m the amount of the dip is calculated:

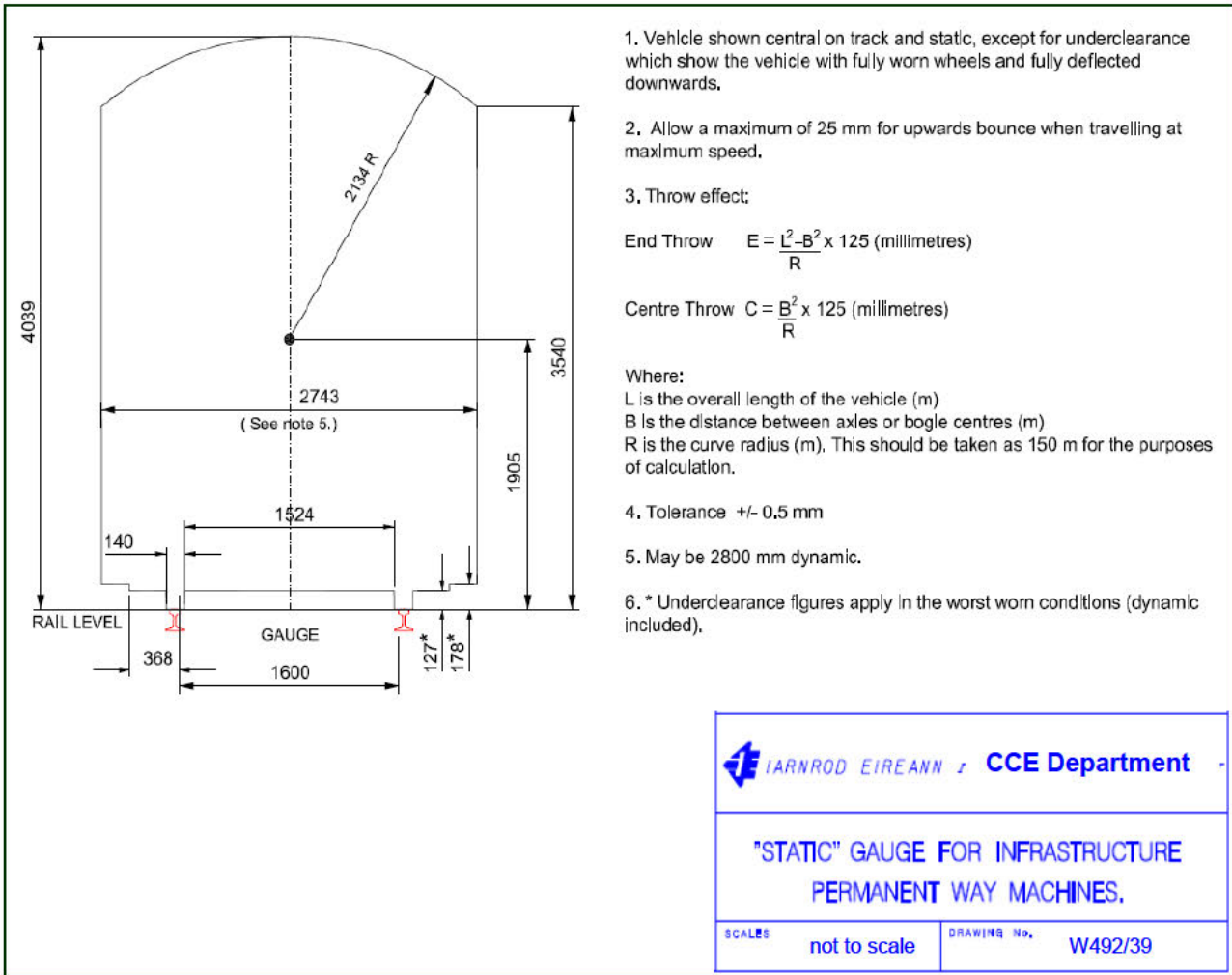
$$\text{dip (mm)} = (\text{wheelbase (mm)} - 6000) / 300 + 40$$

The above measurements check the ability of a road/rail vehicle to negotiate a dipped rail joint while on a track twist without unloading the rail wheels enough to cause flange climb and derailment. This is simulated by putting the rail wheels on load cells to first measure the level rail wheel loads and then packing each single rail wheel to simulate the above track twist and dipped joint (lifting the rail wheels has the same effect on the chassis twist as lowering them).

No vehicle wheel load should reduce by more than 50% of its level value (60% for vehicles with bogies).

APPENDIX C TRAVEL MODE GAUGE

All road/rail vehicles, when in travel mode, must not exceed the outer gauge envelope as shown in the gauge diagram below.

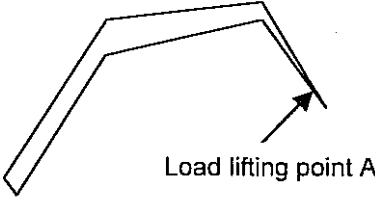


APPENDIX D SAMPLE DATA PANEL

A data panel must be displayed on both sides of each road/rail vehicle. The panel below is a sample given for guidance. Please refer to Section 8 of this document for exact requirements.

99 60 99xx XXX-X			
Vehicle Owner: XXXXXXXX		Contact Telephone Number: XXXXXXXXXXXXX	
Maximum travelling speed	32 km/h	Can be used under LIVE overhead lines	NO
Maximum working speed	6 km/h	May be used adjacent to running line	NO
Maximum travelling through S&C	8 km/h	Trailer brake working pressure	N/A
Maximum travelling cant	165mm	Maximum non service braked towed load	N/A
Maximum working cant	165mm		
Maximum travelling gradient	1:29		
Maximum working gradient	1:29		
Minimum travelling radius	80m	Serial: YV2E4CCD01B290388	
Minimum working radius	80m		

APPENDIX E DUTY CHARTS OF LIMIT LOADS

RAILWAY PLANNERS LIFTING DUTY CHART FOR VEHICLE XXXXX XXXXXX-X											
First of class number XXXXX XXXXXX-X Date of test XX-XX-XXXX											
0 – 50 mm cant, static mode, 10 ⁰ - 45 ⁰ , 315 ⁰ - 350 ⁰											
											
		Radius (m)									
		1	2	3	4	5	6	7	8	9	10
		Maximum lift (t)									
Height (m)	7		5	4.5	4	4	2				
	6		5	4.5	4.5	4	3	2			
	5		6	5.5	5	5	4	3.5	2		
	4	5	8	6.5	6	5.5	5	4.5	3		
	3	5	9	8	7	6	6	5.5	3		
	2	4.5	9	9	9	7	6.5	6	4	1	0.5
	1		9	9	9	9	7	6	4	1	0.5
	0		9	9	9	8	6.5	5.5	2	0.5	
	-1		7	9	7	7	6	4	1		
	-2			7	4	5	3	1			
-3			4.5	2.5	2						
ARL											

The above chart is an example of a typical lifting duty chart for a road/rail vehicle (RRV). It shows a vehicle's SWL (maximum lift) for a particular height and radius of the RRV lift point. Each RRV will have several sets of duty charts for a particular slew sector or cant duty.

These duty charts should be used by lift planners and operators to ensure an RRV is capable of lifting the planned load at the required height or radius.



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Checked by	[REDACTED]
Approved by	[REDACTED]

CCE DEPARTMENT

QUALITY MANAGEMENT STANDARD

CCE-QMS-008

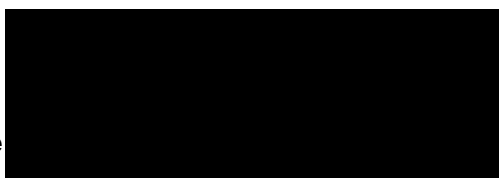
CCE Environmental Management System

This CCE Department Quality Standard sets out the requirements for an Environmental Management System within the Department of the Chief Civil Engineer.

This CCE Department Quality Document is mandatory.

The principles in this Quality Standard are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department.

Signe



Chief Civil Engineer

This standard, along with all CCE Department Standards, is available from the CCE Website. Electronic copies of the standards are controlled and live. Holders of printed copies of the standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

This is a Controlled Document, as presented on-line.

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1 Policy, Scope and Principles

1.1 Policy

- 1.1.1 The system of standards, procedures, responsibilities and other EMS documents described in this Department Standard, CCE-QMS-018, referred to herein as the “CCE EMS”, shall be used to support the Infrastructure Manager Environmental Policy, comply with environmental legislation and meet the requirements of ISO 14001 “Environmental System Requirements” outlined within IM-QMS-008 “Infrastructure Manager Environmental Management System.
- 1.1.2 The IM Environmental Policy is included as Appendix 1 of this document and is available on the IM and CCE websites.
- 1.1.3 The IM Environmental Policy shall be displayed at IM locations.

1.2 Scope

- 1.2.1 This Environmental Management System covers only the activities in the CCE Department.
- 1.2.2 The CCE EMS describes the processes and accountabilities of employees that ensure environmental compliance. This CCE EMS also determines the sequence and interaction of such processes.
- 1.2.3 This EMS is supported by CCE Quality Documentation including specific CCE Quality Management Standards, an CCE Safety Management System supported by CCE Safety Documentation, and CCE and SET Technical Management Systems supported by CCE and SET Technical Documentation.

1.3 Principles

- 1.3.1 The CCE EMS forms an intrinsic part of the overall CCE Quality Management System (QMS), as set out in CCE-QMS-001, and is designed to be compatible with the other elements of the CCE QMS and IM-QMS-001 “Infrastructure Manager Quality Management System”.
- 1.3.2 The Standards and Operating Procedures for the CCE EMS are written in conformance with ISO 14001 “Environmental System Requirements”. Compliance of this CCE EMS with ISO 14001 is provided in Appendix 2.
- 1.3.3 Accountable Line Managers shall consider environmental aspects when agreeing their annual departmental budgets to ensure the availability of the required resources, personnel, appropriate equipment and adequate time to conform to requirements of this CCE EMS.
- 1.3.4 Adherence to the requirements within this CCE EMS is demonstrated by Environmental Aspects Registers and through external and internal auditing.
- 1.3.5 Safety definitions that apply to all standards are set out in CCE-SMS-001 CCE Safety Management System.
- 1.3.6 Terminology such as “his” or “manager” in this Standard is not gender specific.

2 Definitions

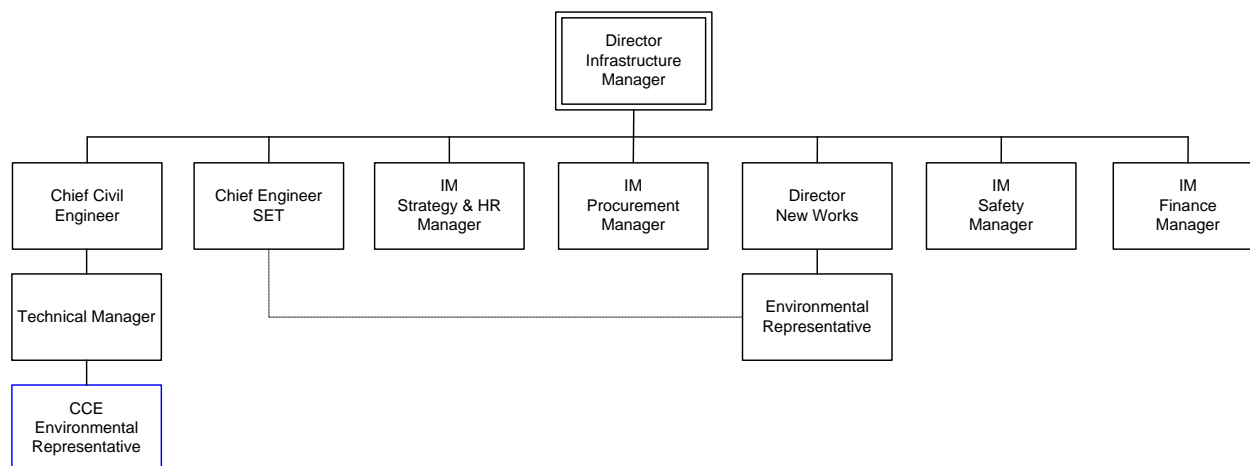
2.1 Standard-Specific Definitions

- 2.1.1 The full list of CCE Quality Definitions is shown in CCE-QMS-001 CCE Quality Management system. The following definitions are specific to this CCE Standard.
- 2.1.2 **Appropriate Assessment** - An ecological assessment of plans or projects which may have a direct or indirect effect on a Natura 2000/European Designated Sites. The requirement to undertake an Appropriate Assessment is provided for under Article 6 part 3 and 4 of the EC Habitats Directive.
- 2.1.3 **Environmental Aspects** – The elements of an organisation’s activities or products or services that can interact with the environment (air, water, soil, etc.).
- 2.1.4 **Environmental Aspects Register** – A formal register of the Location’s Environmental Aspects, activities relating to those aspects and the environmental risks they pose.
- 2.1.5 **Environmental Representative** – A person designated to manage environmental issues on behalf on IM Departments.
- 2.1.6 **EPA** – Environmental Protection Agency.
- 2.1.7 **NPWS** – National Parks & Wildlife Service.
- 2.1.8 **Significant Environmental Issue** – An event or situation which has a direct effect on the environment and can create a potential liability for the Company (e.g. the migration of a pollutant from Iamnród Éireann property).
- 2.1.9 **Significant Environmental Task** – A task involving carrying out works which could cause a significant environmental impact (e.g. fuel dispensing, use of chemicals near a watercourse).

3 Accountabilities and Responsibilities

The full listing of CCE Management Accountabilities and Responsibilities is shown in CCE-QMS-001 CCE Quality Management System. The following accountabilities and responsibilities are specific to this CCE Standard.

3.1 Environmental Technical Support IM & CCE



3.2 Chief Civil Engineer (CCE)

3.2.1 The CCE is the owner of this Standard and is Accountable for the management of the Environmental Aspects of the CCE Department and for revising, as required, the processes as described in this Standard.

3.2.1.1 This accountability for environmental management includes:

3.2.1.2 Accountability, as the Head of the CCE Department, for ensuring that the CCE Department's EMS is implemented and that the Accountable Line Managers are managing their activities accordingly.

3.2.1.3 Setting and reviewing the CCE Environmental Objectives with the Environmental Representative annually.

3.2.1.4 Ensuring promotion of the IM Environmental Policy, CCE Environmental Objectives and the CCE EMS throughout the CCE Department and ensuring its adoption by the CCE Locations.

3.2.1.5 Reporting periodically to the Director IM on the environmental performance of the CCE Department.

3.2.1.6 Managing all the CCE Department's resources, facilities and workplaces in such a manner as to minimise the impact on the environment and comply with relevant environmental legislation.

3.2.1.7 Ensuring that all the maintenance activities in CCE are delivered in accordance with the CCE EMS.

3.2.1.8 Measuring and reviewing the environmental performance of the different teams in the CCE Department, through the CCE Quality Review process, against the Environmental Objectives.

3.2.1.9 Promoting continuous improvement of CCE activities to enhance environmental compliance of the CCE Department.

3.3 Accountable Line Managers

3.3.1 CCE Infrastructure Managers, Technical Manager, Buildings and Facilities Manager, Senior Track & Structures Engineers, Principal Engineer Structures, Principal Engineers Track, Manager IAMS, Infrastructure Production Plan Manager, Regional Managers and Supervisors

3.3.2 Every manager of a team, as listed above in 3.3.1, is Accountable for environmental management of all the activities associated with his team.

3.3.3 This environmental accountability includes:

3.3.3.1 Setting out his budget to ensure compliance with this CCE EMS and facilitate management of his CCE Location's Environmental Aspect Register.

- 3.3.3.2 Ensuring compliance with the CCE EMS within his Location.
- 3.3.3.3 Performing a regular review of the Environmental Aspects Register with the Environmental Representative.
- 3.3.3.4 Ensuring that the employees assigned to Significant Environmental Tasks within the CCE Department are briefed on those tasks and trained where required.
- 3.3.3.5 Ensuring that consideration is given to the environmental impact of his work proposals and that appropriate mitigation options are taken.
- 3.3.3.6 Facilitating Environmental Auditing as agreed with the Environmental Representative.
- 3.3.3.7 Ensuring that the Environmental Representative is advised, in a timely fashion, of planned works that could have a significant environmental impact.
- 3.3.3.8 Ensuring that the Environmental Representative is advised of any significant environmental issues or events within his Department, and complaints / issues raised from external parties as they occur.

3.4 Environmental Representative

- 3.4.1 The Environmental Representative is designated by the CCE to manage environmental issues on behalf of the CCE Department
- 3.4.2 This environmental accountability in relation to the Department includes:
 - 3.4.2.1 Providing specialist support on environmental legislation and compliance as well as technical advice on Environmental Aspects to the CCE Departments.
- 3.4.3 Preparing and agreeing the Departmental Environmental Objectives annually with the CCE.
- 3.4.4 Preparing Environmental Aspects Registers to identify, record and rate environmental risks, and to set out proposed mitigations, targets and action plans.
 - 3.4.4.1 Responsibility for the creation and maintenance of the Environmental Aspects register.
 - 3.4.4.2 Reviewing the Environmental Aspects register with the Accountable Line Manager.
 - 3.4.4.3 Preparing Operating Procedures in relation to Significant Environmental Tasks.
 - 3.4.4.4 Liaising with and preparing submissions to statutory bodies on behalf of the CCE Department.
 - 3.4.4.5 Researching and investigating environmental queries.
 - 3.4.4.6 Liaising with the CCE Quality Managers/Quality Representatives to schedule environmental audits.
 - 3.4.4.7 Scheduling, planning and conducting Environmental audits.
 - 3.4.4.8 Liaising with the CCE Quality Manager to completing auditing requirements for ISO certification.
 - 3.4.4.9 Ensuring compliance with and integration of the CCE EMS and CCE QMS.
 - 3.4.4.10 Presenting an updated Environmental Period Review Report at the CCE Period Reviews which illustrates progress on mitigations.

3.5 RU Environmental Officer

- 3.5.1 The RU Environmental Officer is responsible for maintaining the IE register of environmental legislation.

3.6 Employees

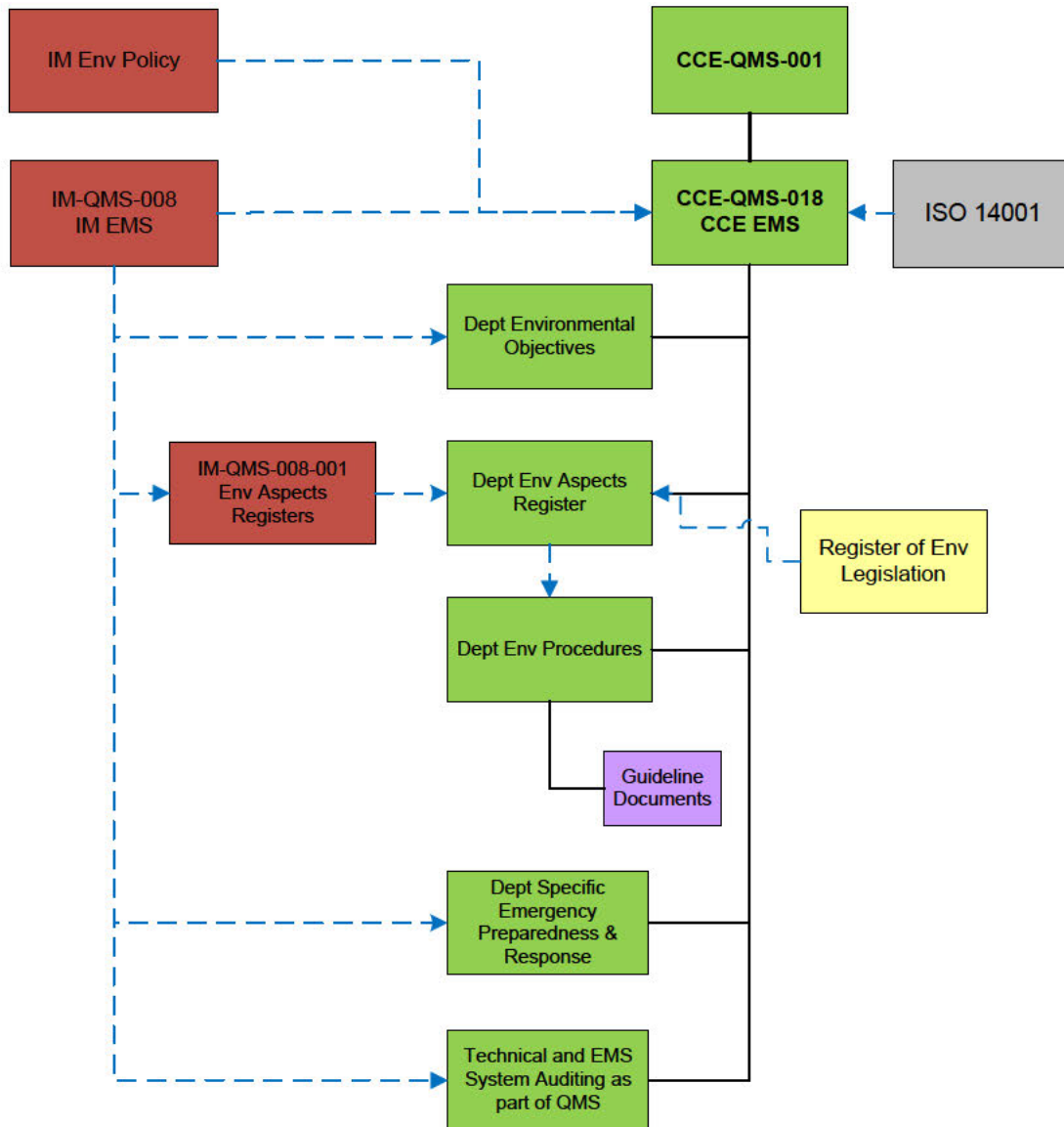
- 3.6.1 Every employee has a responsibility to the Environment.
- 3.6.2 Every employee is Accountable for complying with all applicable environmental legislation (available through the CCE Website) and by acting in accordance with this standard.

3.7 Further Accountabilities and Responsibilities

- 3.7.1 Section 4, Implementation, of this standard describes further the specific accountabilities, responsibilities and duties required under this standard.
- 3.7.2 Staff must ensure that any difficulties with the implementation of this standard are brought to the attention of the CCE Environmental Representative or the CCE Quality Manager.

4 Implementation

4.1 IM and CCE Environmental Management Systems



4.1.1 What is Environmental Management?

4.1.2 Environmental management is the process of identifying and managing the effect our business has on the environment.

4.1.3 The IM EMS is supported by and integrated with the IM quality Management System (QMS).

4.1.4 The main elements of the IM EMS are;

- Environmental Objectives
- Environmental Aspects Register
- Register of Environmental Legislation
- Emergency Preparedness and Response
- Environmental Procedures
- Guideline Documents
- External Communications Register (ECR)

5 Planning

5.1 Environmental Objectives

- 5.1.1 The CCE Environmental Objectives are prepared by the Environmental Representative and reviewed and approved by the CCE annually.
- 5.1.2 The Environmental Objectives are monitored and reported on a periodic basis.
- 5.1.3 Environmental audits assist in the identification of continuous improvements and the identification of environmental objectives for the following year.

5.2 Environmental Aspects Register

- 5.2.1 The aim of the Environmental Aspects Register is to achieve the Department's Environmental Objectives as well as improve the environmental performance of a particular IÉ Location.
- 5.2.2 The Environmental Aspects Register is a tool to:
- 5.2.3 Identify the CCE Location's interactions with the various environmental aspects (air, water, soil, etc.);
- 5.2.4 Identify impacts and risks associated with these interactions and their significance;
- 5.2.5 Determine the appropriate control measures to mitigate risks; and
- 5.2.6 Set targets to ensure the completion of proposed mitigation measures.
- 5.2.7 Environmental Aspects Registers will adhere to relevant environmental legislation as listed on the Company's Register of Environmental Legislation, available through the CCE Website.
- 5.2.8 The Environmental Aspects Register per CCE Location will be kept as a live document on the CCE Website.
- 5.2.9 Environmental Aspects Registers shall conform to requirements outlined in IM-QMS-008-001, "Environmental Aspects Registers".
- 5.2.10 The Environmental Representative will update the CCE Locations' Environmental Aspects Registers with the Accountable Line Manager as required.
- 5.2.11 The CCE Locations' Environmental Aspects Register shall be reviewed by the Environmental Representative and the CCE Technical Manager at the Technical Review Meeting.
- 5.2.12 The Environmental Representative shall support the Accountable Line Manager in the interpretation of the Environmental Aspects Register ensuring that the proposed actions are appropriate.

5.3 Register of Environmental Legislation

- 5.3.1 A live register of environmental legislation that applies to Iarnród Éireann operations is available to assigned IÉ staff on an online system called "Pegasus".
- 5.3.2 The IÉ Energy & Environmental Unit shall make available on the IM Website a summary list of environmental legislation from Pegasus. This list shall chart the various departments within Iarnród Éireann and indicate which legislative document directly or indirectly applies to a particular department.
- 5.3.3 The IÉ Energy & Environmental Unit shall take note of the electronic updates sent by Pegasus and update the compiled list of environmental legislation on the IM Website every 6 months (January and July each year).

6 Implementation and Operation

6.1 Competency, Training and Awareness

- 6.1.1 CCE Environmental Representatives shall be trained and competent in the field of Environmental Management.
- 6.1.2 The Environmental Representative shall inform the Accountable Line Manager when there is a reoccurring Significant Environmental Task within the Department.
- 6.1.3 The Accountable Line Manager with the assistance of the Environmental Representative shall ensure a documented procedure is created to address the Significant Environmental Task.
- 6.1.4 The Accountable Line Manager must ensure staff members who are implementing these procedures, which have a significant environmental impact, are briefed on the environmental implications of those tasks and trained where required.

6.2 Communication

6.2.1 Internal Communication

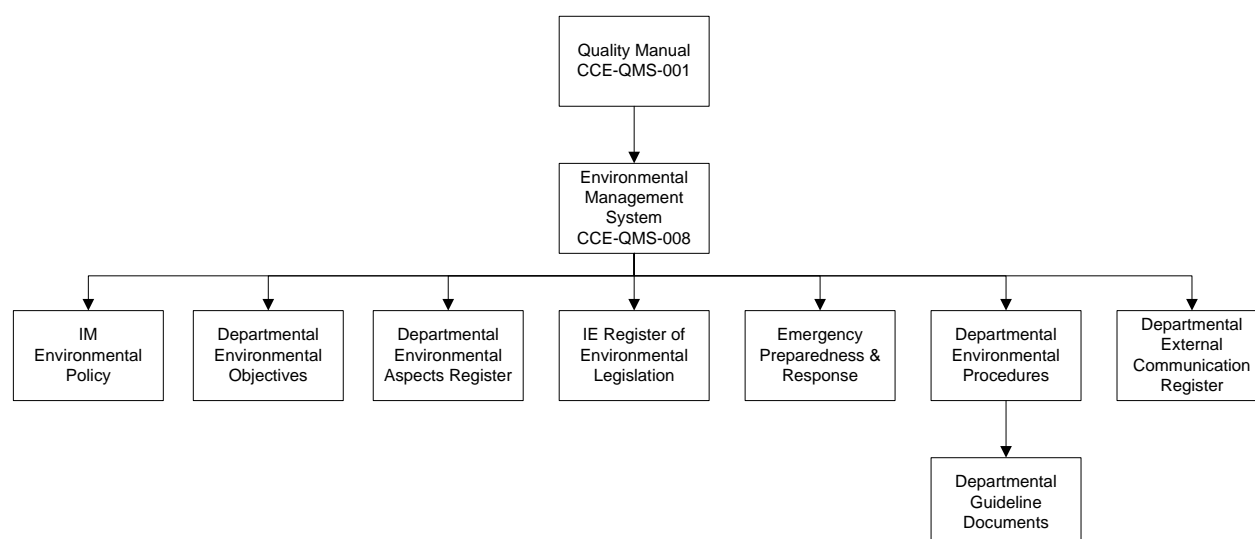
- 6.2.1.1 Environmental Standards, Operating Procedures and guidance documents are available to all staff on the CCE website.
- 6.2.1.2 Briefing of EMS documentation shall be done in accordance with IM-SMS-003, "Briefings".

6.2.2 External Communication

- 6.2.2.1 Accountable Line Managers and the Environmental Representative shall maintain an external communication register (ECR) with the purpose of recording correspondence with external bodies and other third parties in relation to environmental issues, queries or complaints.
- 6.2.2.2 The external communications register will also assign actions and planned completion dates against each item of correspondence.
- 6.2.2.3 The external communications register shall be made available on the CCE website and audited in conformance with the IM-QMS-007 "Quality Audits".

6.3 Documentation

- 6.3.1 The CCE EMS includes the following documentation;



6.4 Control of Documents & Records

- 6.4.1 The control of documentation for the CCE EMS shall comply with CCE-QMS-002 Document Management available on CCE Website.
- 6.4.2 All CCE EMS documentation (see section 6.3.1) shall be made available on the CCE Website.

6.5 Emergency Preparedness and Response

- 6.5.1 For major emergencies relating to train operations (e.g. derailments, severe impacts), please refer to the IM's Emergency Response Handbook (the Red Book), which includes information regarding environmental protection.
- 6.5.2 Environmental considerations shall be incorporated in CCE Department's specific localised emergency response plans and project method statements. The Environmental Representative will provide technical advice to the Department's Safety Team in reviewing this documentation.

6.6 CCE Department Environmental Operating Procedures

- 6.6.1 Management of CCE Environmental Aspects and the achievement of the CCE Environmental Objectives and related targets are accomplished through compliance with defined CCE Environmental Operating Procedures.
- 6.6.2 The Accountable Line Manager shall be advised by the Environmental Executive if a particular Environmental Operating Procedure is required for a Significant Environmental Task.
- 6.6.3 The Environmental Executive will prepare the Environmental Operating Procedure for approval by the Accountable Line Manager.
- 6.6.4 The Accountable Line Manager shall approve and brief the Environmental Operating Procedure to his staff in accordance with CCE-QMS-003 "Briefings".

6.7 Guideline Documents

- 6.7.1 These are documents which provide information, advice and reference material on particular environmental concerns such as:
- 6.7.2 *Protected Species Guidelines* – descriptions of protected species such as bats, badgers and otters; how to build bat boxes; advice on moving badger setts; etc.
- 6.7.3 *Litter Management and Guideline Document* – implementation of formulated plans and programmes which manage incidents of litter along the rail network.
- 6.7.4 CCE Guideline documents are available on the CCE Website.

7 Checking

7.1 Monitoring and Measuring

- 7.1.1 Accountable Line Managers are Accountable for implementing and monitoring mitigation measures at his Location to correct / prevent environmental issues and improve Environmental Performance. These mitigation measures are and their progress are recorded on the Environmental Aspects Register.
- 7.1.2 The CCE Locations' Environmental Period Review Report shall be presented quarterly at CCE Period Review Meeting to the Head of Department.

7.2 Auditing and Compliance

- 7.2.1 Technical Environmental Audits per location will be conducted at a minimum annually by the Environmental Representative.
- 7.2.2 Auditing of an IM EMS system shall be in compliance with the IM-QMS-007 "Quality Audits".

7.3 Corrective / Preventive Actions & Continuous Improvement

- 7.3.1 Corrective / preventive actions and continuous improvements are tracked and monitored on the Environmental Aspects Register as mitigation and control measures.
- 7.3.2 The Environmental Representative will provide specialist advice and support to the Accountable Line Managers on proposing mitigation and control measures.
- 7.3.3 The Accountable Line Manager will agree the final set of mitigation and control measures to address nonconformities and target completion dates with the Environmental Representative.
- 7.3.4 The Accountable Line Manager shall ensure target dates are achieved and action items are closed out on the Environmental Aspects Register.
- 7.3.5 The Accountable Line Manager shall initiate continuous improvement projects arising from reviews of the Environmental Aspects Register, Annual Environmental Reports and ISO compliance audits.

8 Environmental Management Review

- 8.1.1 The CCE Departments shall conduct an “Environmental Management Review” of the CCE EMS to ensure its continuing suitability, adequacy and effectiveness.
- 8.1.2 The preparation for the “Environmental Management Reviews” are co-ordinated by the Quality Managers/Quality Representatives and Environmental Representatives who are responsible for preparing the presentations and for recording and following-up on the actions as in the minutes.
- 8.1.3 Every Accountable Line Manager is Accountable for closing out any actions that may arise from this review.
- 8.1.4 The input to the “Environmental Management Review” shall include:
- Results of Audits
 - Communications from external parties
 - The extent to which objectives and targets have been met
 - Status of preventive and corrective actions
 - Follow up actions from previous management reviews
 - Changes that could affect the EMS
 - Recommendations for improvement
- 8.1.5 Outputs from the “Environmental Management Review” shall include:
- Improvement of the effectiveness of the EMS and its processes
 - Resource needs
- 8.1.6 Recommendations for a change to any IM-QMS standards or OP’s must be forwarded to the QMS Review Group.

End of Standard

Appendix 1 Infrastructure Manager Environmental Policy



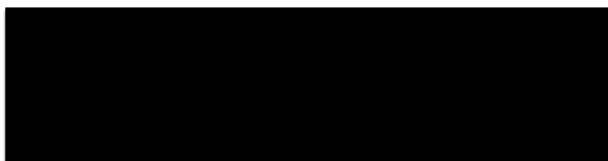
INFRASTRUCTURE MANAGER ENVIRONMENTAL POLICY

In IM Department, we recognise that our activities have an impact on the environment. It is our responsibility to minimise, as far as is practicable, our impact on the environment and to continuously explore ways to improve our efficiency and reduce our consumption of natural resources.

The IM Department commits to:

- Conduct our activities, and those undertaken on our behalf, in an environmentally responsible manner and in compliance with all applicable legislation, Company Policy and Standards
- Consider environmental implications in our planning and decision-making
- Procure vehicles, materials and supplies that meet or exceed applicable legislation and EU Directives in order to support our objective to minimise our impact on the environment
- Minimise pollution risks and reduce emissions as far as is practicable
- Record and respond swiftly to all complaints on environmental matters
- Minimise the generation of all wastes as far as practicable and maximise the volume of waste that is recycled or reused
- Act responsibly in our use of natural resources.
- Continuously explore new ways to optimise our energy efficiency
- Review our Environmental Management System annually, both system and results, with a view to improving our future performance
- Inform our employees, suppliers and contractors of our Environmental Policy and provide the necessary training and support required to meet our environmental objectives
- Communicate our environmental status and objectives to our employees on a regular basis

The IM Department commits its employees to actively support this Policy and to implement it at all levels throughout the organisation.



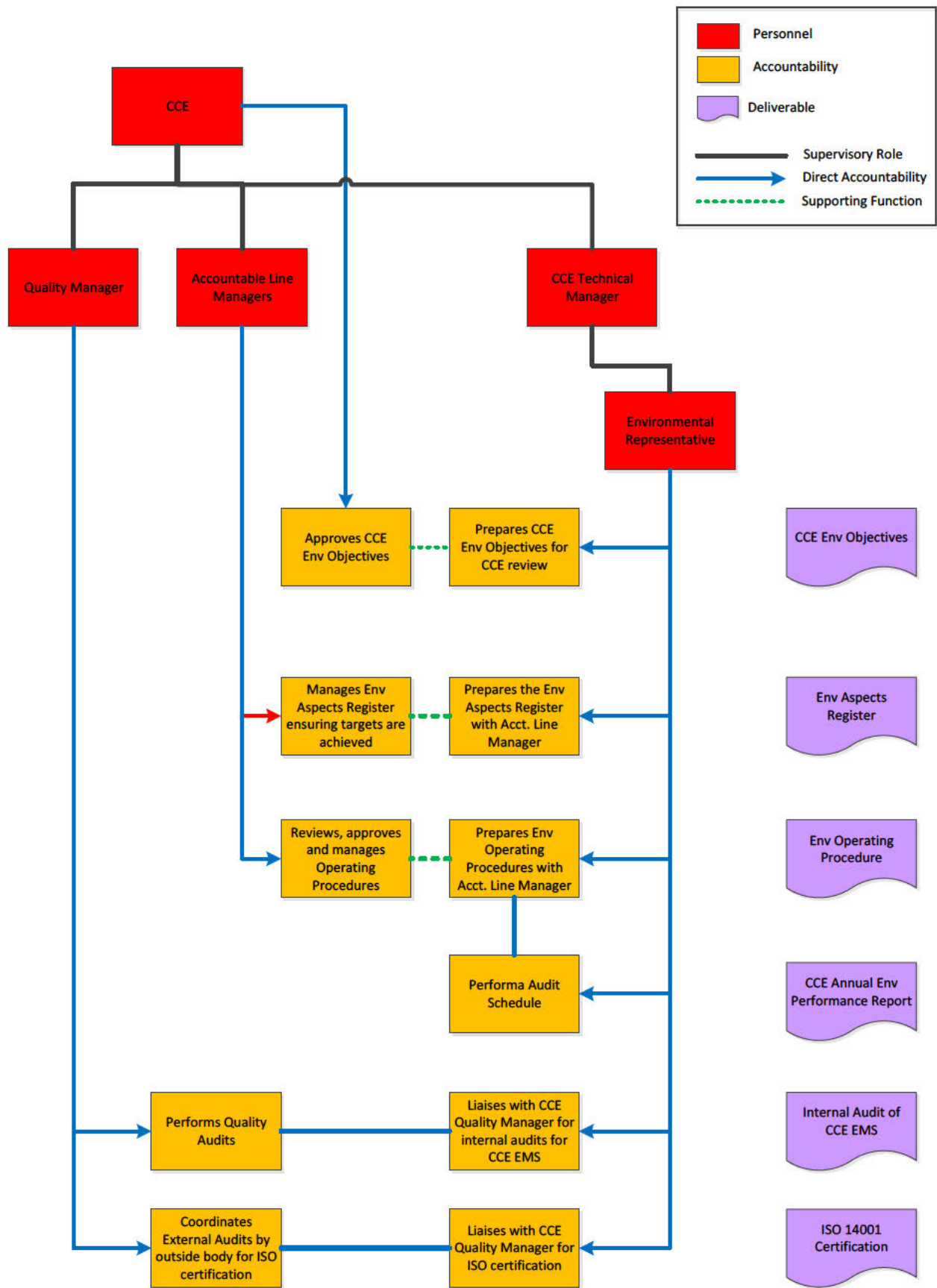
Director Infrastructure Manager

Issue 1 – March 2013

Appendix 2 ISO 14001 Compliance Matrix for IM EMS

ISO14001		IM-QMS-008 Environmental Management System which satisfies ISO14001 requirements
Section	Description	
	Introduction	
1	Scope	Section 1.2
2	Normative references	N/A
3	Terms and definitions	Sections 2, IM-QMS-001
4	Environmental Management system requirements	
4.1	General requirements	Section 1
4.2	Environmental policy	Appendix 1
4.3	Planning	
4.3.1	Environmental aspects	Section 5.2
4.3.2	Legal and other requirements	Section 5.3
4.3.3	Objectives, targets and programme(s)	Section 5.1
4.4	Implementation and operation	
4.4.1	Resources, roles, responsibilities and authority	Sections 3, IM-QMS-001
4.4.2	Competence, training and awareness	Section 6.1
4.4.3	Communication	Section 6.2
4.4.4	Documentation	Section 6.3
4.4.5	Control of documents	Sections 6.4, IM-QMS-002
4.4.6	Operational control	Section 6.6
4.4.7	Emergency preparedness and response	Section 6.5
4.5	Checking	
4.5.1	Monitoring and measuring	Section 7.1
4.5.2	Evaluation of compliance	Section 7.2
4.5.3	Nonconformity, corrective action and preventive action	Section 7.3
4.5.4	Control of records	Sections 6.4, IM-QMS-002
4.5.5	Internal audit	Sections 7.2, IM-QMS-007
4.6	Management review	Section 8

Appendix 3 CCE EMS Accountabilities Organisational Chart



Briefing Note

<p>Purpose: This standard outlines the accountabilities, responsibilities and processes applicable to the CCE Environmental Management System (EMS) ensuring compliance with environmental legislation and the requirements of ISO 14001:2004 “Environmental Management System.</p>	<p>Scope: This Environmental Management System covers only the activities in the CCE Department.</p>
<p>What’s New / What’s Changed & Why?</p> <p>This document is the second issue of the Environmental Management System (EMS) for the CCE Department and forms part of the CCE Quality Management System.</p> <p>CCE QMS 008 “Environmental Management System” describes the following:</p> <ul style="list-style-type: none"> • The Policy, Scope & Principals of the CCE EMS. • The Definitions of words and phrases used within the CCE EMS. • The Environmental Accountabilities and Responsibilities of personnel in the CCE Department. • What is the EMS and what are its components? • How the EMS is implimented and operated? • How the EMS is monitored, audited and improved? <p>This Standard also includes;</p> <ul style="list-style-type: none"> • The IM Environmental Policy • How this Standard relates to ISO 14001 <p>Version 2.0 reflects the change in structure arising from the RU/IM split and specifically how the CCE EMS related to ISO14001.</p>	
<p>Target Audience:</p> <p>CCE Staff should be briefed in full on CCE EMS to the level of PWI.</p>	
<p>Type of Briefing Required?</p> <p>Full Briefing <u> X </u> <i>Briefing of the OP is required in full to Target Audience.</i></p> <p>Content Changes Briefing <u> </u> <i>Brief Target Audience on revisions to the OP.</i></p> <p>Awareness Briefing <u> </u> <i>Brief Target Audience of the existence of the OP .</i></p>	
<p>Note:</p> <p>Advise target audience to read thoroughly any sections that affect them directly.</p> <p>Be more specific and expand on sections as appropriate for the audience.</p> <p>Encourage feedback. If any feedback, Briefer should forward details to the Quality Manager / Representative.</p>	

9 Revision History

Version No and Date	Section No and Reason for Change
2.0 30.01.2014	Structure of Document changed to reflect components of ISO14001
1.0 01.05.2013	Structure of document changed to reflect RU/IM split within Organisation.

End of Standard

Reference No.	CCE-TMS-SPN-037
Version	1.4
Operative Date	30/05/2019
Status	Live
Prepared by	[REDACTED]
Checked by	[REDACTED]
Approved by	[REDACTED]

CCE DEPARTMENT

TECHNICAL SPECIFICATION

CCE-TMS-SPN-037

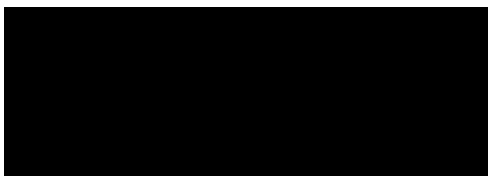
Fencing Specification

This CCE Department Technical Document sets out the requirements for the provision of fencing on the Iarnród Éireann network.

This CCE Department Technical Document is mandatory.

The principles in this Technical Specification are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department.

Signed



Chief Civil Engineer

This technical specification, along with all CCE Department Technical Documents, is available on the CCE Website. Electronic copies of the documents are controlled and live. Holders of printed copies of the document are responsible themselves for ensuring that they have the most up to date version as appropriate.

This is a Controlled Document, as presented on-line.

**It is Uncontrolled if printed, unless endorsed
on this page with the approved and completed
"Controlled Copy" label/stamp.**

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1 Scope and Principles

1.1 Scope

1.1.1 This specification details the requirements of Iarnród Éireann with respect to the manufacture, supply and installation of various types of new fencing required adjacent to the railway track in urban and rural areas.

1.2 Principles

1.2.1 This specification applies from the operative date and supersedes all existing Iarnród Éireann fencing specifications.

1.2.2 Iarnród Éireann reserves the right to modify or amend this specification.

1.2.3 Unless otherwise stated in this specification, the manufacture, supply and installation of all types of fencing must be in accordance with the following documentation:

1.2.3.1 S 148 March 2013 Minimum Specification for Farm Fencing (Department of Agriculture, Food and the Marine).

1.2.3.2 I.S. 436: 2007 Farm Fencing – Timber Post and Wire.

1.2.3.3 I.S. 437: 2008 Horse and Stud Fencing- Timber Post and Rail.

1.2.3.4 I.S 136: 1982 Concrete Fence Posts.

1.2.3.5 EN ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods.

1.2.3.6 I.S. EN 10230-1 2000. Steel wire nails Loose nails for general applications.

1.2.3.7 I.S.105-1: 1977 Wire and Cut Nails for Building Purposes.

1.2.3.8 I.S EN 10244-2: 2009 Steel Wire and Wire Products - Non-ferrous Metallic Coatings on Steel Wire - Part 2: Zinc or Zinc Alloy Coatings.

1.2.3.9 I.S. 126: 1982 Galvanised Fencing Wire.

1.2.3.10 I.S. EN 10223-1:2012 Steel Wire and Wire Products for Fences - Part 1: Zinc and Zinc-alloy Coated Steel Barbed Wire.

1.2.3.11 I.S. EN 10223-2:2012 Steel Wire and Wire Products for Fencing and Netting - Part 2: Hexagonal Steel Wire Netting for Agricultural, Insulation and Fencing Purposes.

1.2.3.12 I.S. EN 10223-5:2012 Steel Wire and Wire Products for Fencing and Netting - Part 5: Steel Wire Woven Hinged Joint and Knotted Mesh Fencing.

1.2.3.13 I.S. EN 10223-6:2012 Steel Wire and Wire Products for Fences - Part 6: Steel Wire Chain Link Fencing.

1.2.3.14 I.S. EN 206-1:2002 Concrete - Part 1: Specification, performance, production and conformity.

1.2.3.15 BS3692:2001 ISO metric precision hexagon bolts, screws and nuts. Specification

1.2.3.16 BS 4320:1968. Specification for metal washers for general engineering purposes. Metric series.

1.2.3.17 BS 4102:1998. Specification for steel wire for general fencing purposes.

1.2.3.18 BS1722:2006 Fences.

2 Implementation

2.1 General Requirements

2.1.1 General

- 2.1.1.1 Fences shall be accurately set out and erected to provide a smooth alignment in plan and elevation and shall follow the profile of the ground along the length of the fence as closely as is practicable.
- 2.1.1.2 The line of the fence shall follow the exact same line as the existing fence line that is to be removed, if it is not possible to achieve this then the contractor must seek written agreement from the Iarnród Éireann Engineer, after consultation with the relevant property owner.
- 2.1.1.3 The Contractor must satisfy him/herself that accesses are adequate at tender stage to execute the works in accordance with their method statements.
- 2.1.1.4 The contractor shall supply material data sheets (and samples, where practicable e.g. fencing wire) for all fencing materials to be installed to the Iarnród Éireann Engineer, prior to works commencing.

2.1.2 Site Clearance

- 2.1.2.1 The Contractor shall clear all vegetation including any tree / bush growth and other obstructions when the fence is being erected and must remove all vegetation (Trees, Bushes, Entire Hedgerow etc) down to ground level from the running rail to 5m the field side of the boundary.
- 2.1.2.2 Where an existing fence is present, the contractor shall remove the existing fence before the installation of new fencing.
- 2.1.2.3 A definite plan by the contractor is to be agreed with the Iarnród Éireann Engineer and the property owner in relation to the construction of the fence so that animals/people trespass are catered for during construction.
- 2.1.2.4 Any request to leave existing hedgerows in place must be agreed in writing with the Iarnród Éireann Engineer prior to works commencing.
- 2.1.2.5 Where there is a stone wall all vegetation from around the wall must be removed and the fence erected on the property owner's side of the stone wall taking care not to damage the existing wall as the existing boundary must be maintained.
- 2.1.2.6 The contractor must take due care when removing vegetation and levelling the ground so as not to damage any Iarnród Éireann Infrastructure, if infrastructure is damaged, the contractor must bring this to the attention of the Iarnród Éireann Engineer, in writing and the contractor shall repair the infrastructure and bear the associated costs.
- 2.1.2.7 If it is not possible to remove the trees stumps/hedge row without compromising the formation, the Iarnród Éireann Engineer must be notified in writing and confirmation must be sought by the contractor in writing.
- 2.1.2.8 All remaining tree stumps must be treated with a Department of Agriculture approved Herbicide, as per the manufacturers guidelines, to ensure the leaves and root system are destroyed, preventing regrowth.
- 2.1.2.9 The contractor must saw cut all remaining tree stumps that are greater than 150mm diameter and remain jagged, prior to treating with herbicide as per cl 2.1.2.8.
- 2.1.2.10 Where boundary drains exist along the fence line, they shall be cleaned by removing vegetation from the bottom and sides of the drain.
- 2.1.2.11 The contractor shall prepare the ground by levelling with an excavator, after vegetation has been removed and the drain has been cleaned.
- 2.1.2.12 Once the ground along where the fence is to be erected is cleared and levelled the new fence can be erected.

2.1.2.13 If property owner restricts the contractor from erecting any element of the fencing or cutting any vegetation on Iarnród Éireann boundary/property, Iarnród Éireann engineer must be immediately notified in writing of the situation.

2.1.3 Disposal of Material/Vegetation

2.1.3.1 The Contractor shall legally dispose off-site, any existing fencing materials removed as part of the Scope of Works.

2.1.3.2 No tree/undergrowth removed by the contractor is to remain on Iarnród Éireann property.

2.1.3.3 No tree/undergrowth removed by the contractor is to remain on a landowners property, unless agreed in writing between the contractor and the landowner.

2.1.3.3.1 The contractor must agree a location to stockpile the vegetation with the landowner that is clear of the railway boundary (greater than 20m from the fence line).

2.1.3.3.2 If the landowner is offered any timber/trees the contractor must saw them into manageable lengths (2.5m) and stack in the agreed location.

2.1.3.4 A copy of this agreement must be provided to the Iarnród Éireann Engineer.

2.1.3.5 All undergrowth is to be mulched by use of a mulching head attachment to a suitable machine and shall be removed off site prior to completion of works.

2.1.3.6 Due care is to be taken by the Contractor with regard to the use of mulching heads when used near livestock and people.

2.1.3.7 The contractor must tidy up after mulching takes place to the satisfaction of the Iarnród Éireann Engineer, ensuring all vegetation and vegetation fragments are removed from site and disposed of legally in accordance with relevant legislation.

2.1.3.8 On completion of works the site must be left clean and tidy, to the satisfaction of the Iarnród Éireann Engineer.

2.1.4 Arrangements with Third Parties

2.1.4.1 Contractor to liaise directly with all third parties in relation to carrying out these works including ESB, Local Authorities/County Councils, Bord Gais, Eircom, Property Owners and any others as required before, during and after the works.

2.1.4.2 Contractor to ensure that all services are identified prior to commencement of work, contractor must exercise due care in relation to working around these services.

2.1.4.3 Contractor must agree terms and conditions with all property owners prior to entry onto their property. These terms and conditions are entirely between the contractor and the property owner and not Iarnród Éireann.

2.1.4.4 All access used by the contractor are to be made good and returned to original condition or better (the contractor must take photographs as proof of condition of access prior to works commencing)

2.1.4.5 The contractor to make good and bare the associated costs for any damage caused by the works to the property, both Irish Rail and property owners, this includes any reseeded required as a direct result of the fencing works.

2.1.4.6 It is the contractor's responsibility to determine if traffic management is required and if so they shall bare the associated costs and execute the works in accordance with Chapter 8 of the Traffic Signs Manual.

2.1.5 Unauthorised Access during Works

2.1.5.1 Temporary fences are to be provided by the contractor, where livestock need to be contained for the duration of the fencing works.

2.1.5.2 As soon as the Contractor is placed in possession of the site he shall immediately close and secure the area to the public. Such arrangements shall be made so as pedestrians in the area shall be unable to access the worksite at any time, day or night.

2.1.6 Adjoining Fences, Walls, Structures

- 2.1.6.1 Fences shall be effectively terminated at existing fences, walls and other structures to provide a complete barrier to persons or animals as appropriate.
- 2.1.6.2 Fencing shall not continue across or within a water course, fencing shall be returned to the structure both sides, providing a complete barrier to persons or animals as appropriate.

2.2 Concrete Post and Wire

2.2.1 General

2.2.1.1 Concrete Post and Wire fencing shall be of the type detailed in the following clauses and as shown in appendix A, drawing A.1 and shall comply with all other statutory requirements and other specified requirements.

2.2.2 Precast Concrete Posts and Struts

2.2.2.1 Precast concrete fence posts and struts shall conform with the requirements of I.S. 136 : 1982 in all aspects other than length.

2.2.2.2 The minimum length of posts and struts, shall be as follows:

2.2.2.2.1 The minimum overall length of the intermediate post shall be 1990 mm.

2.2.2.2.2 The minimum overall length of the straining post shall be 2270 mm.

2.2.2.2.3 The minimum overall length of the strut shall be 2140 mm.

2.2.2.3 The minimum cross sections of posts and struts, in accordance with I.S.136:1982, shall be as follows:

2.2.2.3.1 The cross section of the intermediate post shall be 100mmx100mm at the base and 100mmx75mm at the top.

2.2.2.3.2 The cross section of the straining post shall be 125mmx125mm at the base and 125mmx125mm at the top.

2.2.2.3.3 The cross section of the strut shall be 125mmx100mm at the base and 125mmx100mm at the top.

2.2.2.4 Posts shall be holed to the appropriate size to allow the fixing of the line wire specified in section 2.2.3 below.

2.2.2.5 Heads of posts shall be half rounded in order to prevent the lodgment of water.

2.2.2.6 Any section of concrete post fencing (including branches or spurs) shall start with a straining post and shall end with a straining post.

2.2.2.7 Straining posts should be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.

2.2.2.8 On straight sections of fence, straining posts shall be spaced at a distance not greater than 70 metres. In these cases, the wire must be tensioned at these posts by one of the means outlined in clause 2.2.3.6 below, then continue the fencing with another length of 70m.

2.2.2.9 The spacing between intermediate posts or between an intermediate post and a straining post, measured centre to centre of posts, shall not be greater than 3.5 metres.

2.2.2.10 Struts shall be fitted to all straining posts in the direction of the line of fencing and shall be securely fastened together.

2.2.3 Fencing Wire

2.2.3.1 All wire (line, sheep, barbed, tying) shall conform to IS EN 10223 and be galvanized, complying with I.S. EN 10244-2 (Class A) and I.S 126:1982.

2.2.3.2 Line wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:

2.2.3.2.1 Line wire shall consist of 10 s.w.g. (3.15 millimetre diameter) high tensile steel wire complying with I.S. 126:1982.

2.2.3.2.2 There are to be seven strands of line wire and each strand shall pass through each of the holes in the post.

- 2.2.3.2.3 The height of the top strand of line wire from the ground is to be 1420mm.
- 2.2.3.2.4 Spacing of line wire shall be as detailed on drawing within appendix A and in accordance with I.S. 136:1982.
- 2.2.3.3 Sheep wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:
 - 2.2.3.3.1 Sheep wire shall be HT8/80/15.
 - 2.2.3.3.2 Sheep wire shall be manufactured to IS EN 10223-5 with a minimum class 'medium 2M' high tensile steel and galvanized to IS EN 10244-2 (Class A)
 - 2.2.3.3.3 The maximum opening size at the bottom of the sheep wire shall not exceed 150mm x 75mm, while the maximum opening at the top of the sheep wire shall not exceed 150mm x 150mm.
 - 2.2.3.3.4 Sheep wire is to be fixed to the field side of the fence, 100mm above ground level and shall be fixed to the line wires adequately with tying wire or ring staples at a minimum of three locations per line between posts (see clauses 2.2.4.6 and 2.2.4.7 for tying wire and staples specification).
- 2.2.3.4 Barbed wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:
 - 2.2.3.4.1 Heavy gauge high tensile
 - 2.2.3.4.2 Barbed wire shall be constructed of two number 2 mm high tensile line wires, to I.S. EN 10223-1:2012.
 - 2.2.3.4.3 Shall be galvanized to comply with I.S. EN 10244-2 (Class A).
 - 2.2.3.4.4 There shall be five strands of barbed wire and barb spacings shall comply with I.S. EN 10223-1
 - 2.2.3.5 The top two strands of barbed wire shall be adequately attached (with tying wire or ring staples at a minimum of three locations per line between posts) to the top two strands of line wire and the third adequately attached to the top of the sheepwire, the fourth adequately attached to the fifth from the top strand of linewire and the fifth to the bottom strand of line wire. See drawing A.1 within appendix A.
 - 2.2.3.6 Each line wire and barbed wire shall be strained tightly and secured to each straining post by one of the following means:
 - 2.2.3.6.1 Winding brackets shall be attached to the post with fixing bolts.
 - 2.2.3.6.2 Eyebolt strainers shall be passed through a hole in the post and secured with a nut and washer.
 - 2.2.3.6.3 Eyebolt strainers fixed to intermediate posts shall, in addition, be fitted with ring nuts; in this case the wire attached to the eye of the eyebolt strainer shall be tensions before the ring nut is fixed.
 - 2.2.3.7 Wire shall be erected on the property owner side of the posts.

2.2.4 Ancillary Items (fixings)

- 2.2.4.1 Eye bolt strainers, winding brackets and fixing bolts and nuts shall be hot dipped galvanised in accordance with EN ISO 1461 with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).
- 2.2.4.2 Eye bolt strainers shall consist of bolts of 250 mm overall length and not less than 9.5 mm diameter with a welded eye at one end. They shall be threaded and fitted with nuts and washers.
- 2.2.4.3 Two-way eye bolt strainers shall be fitted with ring nuts.
- 2.2.4.4 Winding brackets intended for attachment to a post shall be manufactured from mild steel flat not less than 45mm x 2mm and shall be fitted with a winding bolt of 12 mm minimum diameter and with a friction type ferrule or ratchet winder. One end of the winding bracket shall be provided with a hole for the attachment of the line wire.

- 2.2.4.5 The Contractor shall ensure that connectors are designed to match the diameter and type of line wire used. One connector is adequate for terminating a line wire at a straining post, two connectors are required to join two line wires in a continuous run.
- 2.2.4.6 Tying wire shall be 1.6mm diameter galvanized mild steel to I.S 126. The galvanizing shall comply with I.S. EN 10244-2 (Class A).
- 2.2.4.7 Staples shall be galvanized or zinc/aluminum coating, minimum 40mm x 3.55mm round standard or barbed wire to I.S 105-1. The coating shall comply with I.S. EN 10244-2.

2.2.5 Foundations

- 2.2.5.1 Minimum sizes of excavated holes for each post and strut shall be as follows:

Straining post	-	900mm deep x 450mm square
Intermediate post	-	600mm deep x 300mm square
Strut	-	750mm x 300mm x depth to suit (min 450mm)

- 2.2.5.2 Concrete for surrounding the bases of posts and struts shall be batched concrete to at least ST2 concrete to IS EN 206. The concrete shall be placed in position before the commencement of the initial set.
- 2.2.5.3 The contractor must make available concrete samples for cube tests if requested by the Iarnród Éireann Engineer at any stage.
- 2.2.5.4 Excavated holes for posts and struts shall have vertical sides except that it shall be permissible for the side of a strut hole adjacent to the post to be sloped.
- 2.2.5.5 After insertion of the post or strut, the hole shall be filled with concrete and well rammed as the filling proceeds. After the concrete has hardened, the remainder of the hole (75mm as per drawing A.1) shall be filled with an approved good quality material (topsoil) which shall be finished proud of the surrounding ground.

2.2.6 Installation

- 2.2.6.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.
- 2.2.6.2 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence.
- 2.2.6.3 When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging.
- 2.2.6.4 The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.
- 2.2.6.5 Struts shall be fitted to all straining posts in the direction of each line of fencing. See mid and intermediate corner detail on drawing A.1

2.3 Timber Post and Wire

2.3.1 General

2.3.1.1 Timber post and wire fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A.

2.3.2 Timber Posts and Struts

2.3.2.1 The minimum length of posts and struts, shall be as follows:

2.3.2.1.1 The minimum overall length of the intermediate post shall be 2100mm.

2.3.2.1.2 The minimum overall length of the straining post shall be 2500mm.

2.3.2.1.3 The minimum overall length of the strut shall be 1800 mm.

2.3.2.2 The minimum cross sections of posts and struts, in accordance with I.S.436:2007, shall be as follows:

2.3.2.2.1 The cross section of the intermediate post shall be 125mm diameter (circular or octagonal) octopost (or similar approved).

2.3.2.2.2 The cross section of the straining post shall be 150mm diameter (circular or octagonal) octopost (or similar approved).

2.3.2.2.3 The cross section of the strut shall be 100mm.

2.3.2.3 Posts shall be scots pine (*Pinus Sylvestris*) or similar approved, grading in accordance with table 2A of the Department of Agriculture and Food minimum specification for Farm Fencing, full pressure impregnated with Creosote classified and approved in accordance with European directive 94/60EC, penetration class P8 and retention demand Post Class A and shall have a moisture content not exceeding 28% when measured in accordance with I.S. 436 and shall be certified in accordance with ISO 9002 and ISO14001.

2.3.2.4 The requirements for the length of posts have been related to 'normal' ground conditions. In soft ground it may be necessary to increase the specified lengths of posts to provide the necessary stability. Where ground conditions are other than 'normal', approval shall be obtained, in advance, in writing, from the Iarnród Éireann Engineer on what modifications are required.

2.3.2.5 Strainers should be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.

2.3.2.6 On straight sections of fence, straining posts shall be spaced at a distance not greater than 150 metres. In these cases, the wire must be tensioned at these posts by one of the means outlined in clause 2.3.3.5, then continue the fencing with another length of 150 metres.

2.3.2.7 The spacing between intermediate posts or between an intermediate post and a straining post shall not be greater than 3.5 metres.

2.3.2.8 Struts shall be fitted to all straining posts in the direction of the line of fencing, at a point within one half and two thirds up the straining post measured from ground level and shall be securely fastened together. See mid and corner detail on drawing A.2-1 and A.2-2.

2.3.3 Fencing Wire

2.3.3.1 All wire (sheep, barbed, tying) shall conform to IS EN 10223 and be galvanized, complying with I.S. EN 10244-2 (Class A).

2.3.3.2 Sheep wire shall be as specified and detailed on drawing A.2 within appendix A and shall meet the following requirements:

- 2.3.3.2.1 Sheep wire shall be HT8/80/15.
- 2.3.3.2.2 Sheep wire shall be manufactured to IS EN 10223-5 with a minimum class 'medium 2M' high tensile steel and galvanized to IS EN 10244-2 (Class A).
- 2.3.3.2.3 The maximum opening size at the bottom of the sheep wire shall not exceed 150mm x 75mm, while the maximum opening at the top of the sheep wire shall not exceed 150mm x 150mm.
- 2.3.3.2.4 Sheep wire is to be fixed to the field side of the fence, 100mm above ground level and shall be fixed to the posts with five number staples at each post, staples as specified in section 2.3.4.7.
- 2.3.3.2.5 To prevent splitting of the post, staples shall be driven at an angle and staggered along the length of the post. Staples shall not be driven home fully as this will inhibit movement of the barbed wire and will damage the galvanising coating.
- 2.3.3.3 Barbed wire shall be as specified and detailed on drawing A.2 within appendix A and shall meet the following requirements:
 - 2.3.3.3.1 Heavy gauge high tensile.
 - 2.3.3.3.2 Barbed wire shall be constructed of two number 2 mm high tensile line wires, to I.S. EN 10223-1:2012.
 - 2.3.3.3.3 Shall be galvanized to comply with I.S. EN 10244-2 (Class A).
 - 2.3.3.3.4 There shall be five strands of barbed wire and barb spacings shall comply with I.S. EN 10223-1
 - 2.3.3.4 The third strand of barbed wire from the top shall be adequately attached (with tying wire or ring staples at a minimum of three locations per line between posts) to the top of the sheepwire, the fourth strand of barbed wire shall be adequately attached to middle of the sheepwire and the fifth strand of barbed wire shall be adequately attached to the bottom of the sheepwire. See drawing A.2-1 and A.2-2 within appendix A.
 - 2.3.3.5 Each line of barb wire shall be strained tightly around each straining post using a suitable straining tool. Once strained the free end of the wire shall be secured to the main length by means of a wire connector and shall be secured and maintained at the required height with a staple driven into the post.
 - 2.3.3.6 Wire shall be erected on the adjacent landowner side of the fence.

2.3.4 Ancillary Items (fixings)

- 2.3.4.1 The Contractor shall ensure that connectors are designed to match the diameter and type of barb wire used. One connector is adequate for terminating a barb wire at a straining post, two connectors are required to join two barb wires in a continuous run.
- 2.3.4.2 Tying wire shall be 1.6mm diameter galvanized mild steel to I.S 126. The galvanizing shall comply with I.S. EN 10244-2 (Class A).
- 2.3.4.3 Staples shall be galvanised or zinc/aluminum coating, minimum 40mm x 3.55mm round standard or barbed wire to I.S 105-1. The coating shall comply with I.S. EN 10244-2.

2.3.5 Foundations

- 2.3.5.1 1350mm of the post shall be above ground.
- 2.3.5.2 Posts with pointed ends shall be driven into the ground to the following depths:
 - 2.3.5.2.1 For intermediate posts 750mm.
 - 2.3.5.2.2 For straining posts 1150mm.
 - 2.3.5.3 Posts with flat ends shall be placed by excavation and set in concrete (see alternative foundation drawing A.2-2, if this arrangement has been specified by the Iarnród Éireann Engineer in advance).

2.3.6 Installation

- 2.3.6.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.
- 2.3.6.2 Timber posts with pointed ends shall be driven into the ground. If timber posts with square cut ends or steel posts fitted with baseplates are specified by the Iarnród Éireann Engineer, they shall be set in concrete, as specified for concrete posts in Clause 2.2.5 of this Specification.
- 2.3.6.3 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence.
- 2.3.6.4 When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging.
- 2.3.6.5 Struts shall be fitted to all straining posts in the direction of each line of fencing (see cl 2.3.2.7 above).
- 2.3.6.6 The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.

2.4 2.4m Security Purpose (SP) Palisade Fencing

2.4.1 General

- 2.4.1.1 Palisade fencing shall be in accordance with BS1722-12:2006 and as shown in appendix A, drawing A.3-1 and shall comply with all other statutory requirements and other specified requirements.
- 2.4.1.2 The type of fencing shall be a 2.4m (i.e. the top of the fencing pales shall be 2.4 metres above ground level) steel security palisade (SP) in accordance with B.S. 1722 : Part 12 : 2006 and shall meet the specific requirements as set out in the following clauses.
- 2.4.1.3 Materials and strength requirements shall be in accordance with SP fencing requirements as detailed in Section 3 and 4 of B.S. 1722 : Part 12 : 2006, unless otherwise stated.
- 2.4.1.4 All steel palisade fencing components shall be of steel grade S275 to BS EN 10025:1993, in accordance with table 7 of BS1722-12:2006, unless otherwise specified.
- 2.4.1.5 After fabrication of fencing components, including the punching or drilling of any holes and all welding, the fencing shall be hot dip galvanised with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns) and shall be polyester powder coated green (Ral6005) in accordance with BS EN ISO 1461 or BS EN 10240 unless otherwise specified by Iarnród Éireann Engineer.
- 2.4.1.6 The fence shall be inspected after erection and any damaged areas found in the hot dipped galvanized coating and green powder coating (if specified) shall be repaired in accordance with BS EN ISO 1461:1999.
- 2.4.1.7 The zinc content of any such paint shall be in accordance with BS 4652 (i.e. at least 80% in the dry film). The coating thickness in the repaired area shall exceed that of the local galvanized coating layer.
- 2.4.1.8 On delivery, the contractor shall provide the Iarnród Éireann Engineer with a certificate confirming that the fence is manufactured in accordance with Iarnród Éireann instructions and BS 1722-12:2006.

2.4.2 Pales

- 2.4.2.1 Pales shall be 3.0mm thick corrugated, with a 'W' profile.
- 2.4.2.2 The tolerance on the length of the pale shall be ±5mm.
- 2.4.2.3 The pale head shall be the triad top (or triple pointed, splayed and returned) type.
- 2.4.2.4 Pales shall be secured to the rails at every intersection by full profile 3mm fillet welds of minimum length 30mm on each side of the pale.
- 2.4.2.5 All welding operation shall be carried out in accordance with BS EN 1011-1 and BS EN 1011-2, by suitable personnel qualified in accordance with BS EN 287-1.
- 2.4.2.6 The maximum spacing of pales, centre to centre, shall be 155mm.
- 2.4.2.7 The minimum face to view (width) shall be 70mm.
- 2.4.2.8 By exception and where it has been agreed in advance with the Iarnród Éireann Engineer, riveted pales may be used only if the pales are then tack welded on site and coated with an anti-rust coating.
- 2.4.2.9 Riveted pales shall be secured with fixings of minimum diameter 8mm. The heads of all fastening shall have the minimum possible projection beyond the face of the pale to minimize tampering and footholds.

2.4.3 Posts

- 2.4.3.1 The posts shall be to the minimum requirements of BS type SP30 in Table 2 of B.S. 1722 : Part 12 (127x76x13kg/m UB).
- 2.4.3.2 The post head shall be pointed type to match the specified pales.
- 2.4.3.3 The maximum centre of posts shall be 2.75 metres.

- 2.4.3.4 The posts shall be set in concrete in the ground to a minimum depth of 750mm.
- 2.4.3.5 The requirements for the length of posts have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.4.4 Rails

- 2.4.4.1 A minimum of two number horizontal rails shall be installed.
- 2.4.4.2 The rails shall be to the minimum requirements of BS type SP30 in Table 2 of B.S. 1722 : Part 12, as shown on drawing (50x50x6 RSA)
- 2.4.4.3 The oversail shall be as per SP30 in Table 2 of B.S. 1722 : Part 12. The oversail from the centre of the upper rail fixing to the top of the pales shall be 475mm. The oversail from the centre of the lower fixing to the bottom of the pales shall be 380mm.

2.4.5 Post to Rail Connections

- 2.4.5.1 Rails shall be secured to posts with connector plates fitted to the web of the post. The diameter of the bolt shall be 12mm as per SP30 in table 2 of BS1722-12:2006.
- 2.4.5.2 Provision shall be made for thermal expansion by providing slotted holes at the rail to plate connection.
- 2.4.5.3 Plates shall be a minimum of 6mm thick, and of sufficient section to give a minimum distance of 9mm to the edge of the hole.
- 2.4.5.4 Connector plates shall be connected to the post by welding at the clear and rail end interface (not at the bolts) with 5mm full profile fillet welds of minimum length 30mm, this should be carried out when the fencing has been lined, levelled and bolts tightened and the concrete bases set.

2.4.6 Ancillary Items (Fixings)

- 2.4.6.1 All bolts shall comply with BS3692 and shall be strength grade 8.8. Nuts shall be strength grade 8 for grade 8.8 fasteners and washers shall conform to BS4320.
- 2.4.6.2 Panel fixing bolts shall be cup square headed.
- 2.4.6.3 Bolts for pales shall have special formed heads to suit pale profiles and shall be tamper resistant i.e. not easily removed using simple tools
- 2.4.6.4 All bolts, nuts and washers shall be hot dipped galvanised in accordance with EN ISO 1461.
- 2.4.6.5 On completion all fixings shall be vandal proof (secure and tamper resistant).

2.4.7 Foundations

- 2.4.7.1 Excavated holes for each post shall be formed with vertical sides, with a dimension in plan of either 350mmx350mm square or 450mm diameter round and to a depth of 800mm.
- 2.4.7.2 The posts shall be set in concrete in the ground to a depth of 750mm.
- 2.4.7.3 The hole for the post shall be filled to ground level with concrete which shall be rammed as the filling proceeds and the top of the concrete weathered.
- 2.4.7.4 The top of the concrete shall have a raised profile to aid in drainage around the post.
- 2.4.7.5 Concrete for post foundations shall be 30N20 concrete to IS EN 206 and shall be placed in position before commencement of the initial set.

2.4.7.6 The requirements for the foundation sizes have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.4.8 Gates

2.4.8.1 Gates, if specified, shall be in accordance with section 7 of BS1722-12:2006 and shall be of comparable quality and provide a comparable degree of security to the adjacent fence.

2.4.9 Additional Security Measures

2.4.9.1 When the Iarnród Éireann Engineer considers a section of fencing to be at risk from burrowing the contractor shall provide one of the additional security measures as outlined in Section 6.2 of B.S. 1722 : Part 12 : 2006 the method of which shall be agreed in advance with the Iarnród Éireann Engineer.

2.4.9.2 If specified, in areas where increased resistance to pale removal is required, the contractor shall provide an additional rail which shall be attached to the lower part of each pale. This additional rail shall be fixed to the pales 100mm from the bottom of the pales.

2.4.10 Installation

2.4.10.1 The steel palisade fencing shall follow the site gradients and special panels shall be fabricated to suit.

2.4.10.2 The contractor shall prepare the ground to provide a fully compacted level gradient.

2.4.10.3 The contractor shall ensure the finished palisade fence the bottom of the fence shall not be more than 50mm above mean ground level or concrete sill level.

2.4.10.4 The contractor shall carry out the necessary surveys in each section where a gradient occurs to enable special fencing panels be fabricated to fit to the gradient.

2.4.10.5 To reduce the final amount of deflection in the fence rails, during the installation of palisade fences the bottom horizontal rail shall be supported so that, after propping, tightening of the bolts, aligning and plumbing to the fence and before placing concrete to posts surround, there is a slight upward chamber. The temporary props to the bottom rail shall be removed only after the concrete has set.

2.5 2.4m General Purpose (GP) Palisade Fencing

2.5.1 General

- 2.5.1.1 Palisade fencing shall be in accordance with BS1722-12:2006 and as shown in appendix A, drawing A.3-2 and shall comply with all other statutory requirements and other specified requirements.
- 2.5.1.2 The type of fencing shall be a 2.4m (i.e. the top of the fencing pales shall be 2.4 metres above ground level) steel general purpose palisade (GP) in accordance with B.S. 1722 : Part 12 : 2006 and shall meet the specific requirements as set out in the following clauses.
- 2.5.1.3 Materials and strength requirements shall be in accordance with GP fencing requirements as detailed in Section 3 and 4 of B.S. 1722 : Part 12 : 2006, unless otherwise stated.
- 2.5.1.4 All steel palisade fencing components shall be of steel grade S275 to BS EN 10025:1993, in accordance with table 7 of BS1722-12:2006, unless otherwise specified.
- 2.5.1.5 After fabrication of fencing components, including the punching or drilling of any holes and all welding, the fencing shall be hot dip galvanised with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns) and shall be polyester powder coated green (Ral6005) in accordance with BS EN ISO 1461 or BS EN 10240 unless otherwise specified by Iarnród Éireann Engineer.
- 2.5.1.6 The fence shall be inspected after erection and any damaged areas found in the hot dipped galvanized coating and green powder coating (if specified) shall be repaired in accordance with BS EN ISO 1461:1999.
- 2.5.1.7 The zinc content of any such paint shall be in accordance with BS 4652 (i.e. at least 80% in the dry film). The coating thickness in the repaired area shall exceed that of the local galvanized coating layer.
- 2.5.1.8 On delivery, the contractor shall provide the Iarnród Éireann Engineer with a certificate confirming that the fence is manufactured in accordance with Iarnród Éireann instructions and BS 1722-12:2006.

2.5.2 Pales

- 2.5.2.1 Pales shall be 3.0mm thick corrugated, with a 'W' profile.
- 2.5.2.2 An alternative 'D' profile, 3.0mm thick, may be used for general purpose palisade pales, however this shall be specified in advance by the Iarnród Éireann Engineer.
- 2.5.2.3 The tolerance on the length of the pale shall be ± 5 mm.
- 2.5.2.4 The pale head shall be the triad top (or triple pointed, splayed) type.
- 2.5.2.5 Pales shall be secured to the rails at every intersection by full profile 3mm fillet welds of minimum length 30mm on each side of the pale.
- 2.5.2.6 All welding operation shall be carried out in accordance with BS EN 1011-1 and BS EN 1011-2, by suitable personnel qualified in accordance with BS EN 287-1.
- 2.5.2.7 The maximum spacing of pales, centre to centre, shall be 155mm.
- 2.5.2.8 The minimum face to view (width) shall be 65mm.
- 2.5.2.9 By exception, where it has been agreed in advance with the Iarnród Éireann Engineer, riveted pales may be used only if the pales are then tack welded on site and coated with an anti-rust coating.
- 2.5.2.10 Riveted pales shall be secured with fixings of minimum diameter 8mm. The heads of all fastening shall have the minimum possible projection beyond the face of the pale to minimize tampering and footholds.

2.5.3 Posts

- 2.5.3.1 The posts shall be to the minimum requirements of BS type GP24 in Table 1 of B.S. 1722 : Part 12:2006 (Rolled steel joists (I section) 102x44x7.5kg/m)
- 2.5.3.2 The post head shall be pointed type to match the specified pales.
- 2.5.3.3 The maximum centre of posts shall be 2.75 metres.
- 2.5.3.4 The posts shall be set in concrete in the ground to a minimum depth of 750mm.
- 2.5.3.5 The requirements for the length of posts have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.5.4 Rails

- 2.5.4.1 A minimum of two number horizontal rails shall be installed.
- 2.5.4.2 The rails shall be to the minimum requirements of BS type GP24 in Table 1 of B.S. 1722 : Part 12, as shown on drawing (45x45x6 RSA)
- 2.5.4.3 The oversail shall be as per GP24 in Table 1 of B.S. 1722 : Part 12:2006. The oversail from the centre of the upper rail fixing to the top of the pales shall be 300mm. The oversail from the centre of the lower fixing to the bottom of the pales shall be 210mm.

2.5.5 Post to Rail Connections

- 2.5.5.1 Rails shall be secured to posts with connector plates bolted to the vertical leg of the rail. The diameter of the bolt shall be 12mm as per GP24 in table 1 of BS1722-12:2006.
- 2.5.5.2 Provision shall be made for thermal expansion by providing slotted holes at the rail to plate connection.
- 2.5.5.3 Plates shall be a minimum of 6mm thick, and of sufficient section to give a minimum distance of 9mm to the edge of the hole.
- 2.5.5.4 Connector plates shall be connected to the post by welding at the clear and rail end interface (not at the bolts) with 5mm full profile fillet welds of minimum length 30mm, this should be carried out when the fencing has been lined, levelled and bolts tightened and the concrete bases set.

2.5.6 Ancillary Items (Fixings)

- 2.5.6.1 All bolts shall comply with BS3692 and shall be strength grade 4. Nuts shall be strength grade 4 for grade 4.6 fasteners and washers shall conform to BS4320.
- 2.5.6.2 Panel fixing bolts shall be cup square headed.
- 2.5.6.3 Bolts for pales shall have special formed heads to suit pale profiles and shall be tamper resistant i.e. not easily removed using simple tools
- 2.5.6.4 All bolts, nuts and washers shall be hot dipped galvanised in accordance with EN ISO 1461.
- 2.5.6.5 On completion all fixings shall be vandal proof (secure and tamper resistant).

2.5.7 Foundations

- 2.5.7.1 Excavated holes for each post shall be formed with vertical sides, with a dimension in plan of either 350mmx350mm square or 450mm diameter round and to a depth of 800mm.
- 2.5.7.2 The posts shall be set in concrete in the ground to a depth of 750mm.
- 2.5.7.3 The hole for the post shall be filled to ground level with concrete which shall be rammed as the filling proceeds and the top of the concrete weathered.
- 2.5.7.4 The top of the concrete shall have a raised profile to aid in drainage around the post.

- 2.5.7.5 Concrete for post foundations shall be 30N20 concrete to IS EN 206 and shall be placed in position before commencement of the initial set.
- 2.5.7.6 The requirements for the foundation sizes have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.5.8 Gates

- 2.5.8.1 Gates, if specified, shall be in accordance with section 7 of BS1722-12:2006 and shall be of comparable quality and provide a comparable degree of security to the adjacent fence.

2.5.9 Additional Security Measures

- 2.5.9.1 When the Iarnród Éireann Engineer considers a section of fencing to be at risk from burrowing the contractor shall provide one of the additional security measures as outlined in Section 6.2 of B.S. 1722 : Part 12 : 2006 the method of which shall be agreed, in advance with the Iarnród Éireann Engineer
- 2.5.9.2 If specified, in areas where increased resistance to pale removal is required, the contractor shall provide an additional rail which shall be attached to the lower part of each pale. This additional rail shall be fixed to the pales 100mm from the bottom of the pales.

2.5.10 Installation

- 2.5.10.1 The steel palisade fencing shall follow the site gradients and special panels shall be fabricated to suit.
- 2.5.10.2 The contractor shall prepare the ground to provide a fully compacted level gradient.
- 2.5.10.3 The contractor shall ensure the finished palisade fence the bottom of the fence shall not be more than 50mm above mean ground level or concrete sill level.
- 2.5.10.4 The contractor shall carry out the necessary surveys in each section where a gradient occurs to enable special fencing panels be fabricated to fit to the gradient.
- 2.5.10.5 To reduce the final amount of deflection in the fence rails, during the installation of palisade fences the bottom horizontal rail shall be supported so that, after propping, tightening of the bolts, aligning and plumbing to the fence and before placing concrete to posts surround, there is a slight upward chamber. The temporary props to the bottom rail shall be removed only after the concrete has set.

2.6 Deer Proof Fencing

2.6.1 General

- 2.6.1.1 Deer Proof fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A, drawing A.4-1.
- 2.6.1.2 Fencing using rectangular wire mesh shall be HT17/190/15, 2m high, formed of 17 horizontal wires, with suitably graded spaces becoming smaller nearer the ground. There shall be a maximum space of 150mm between the vertical wires.

2.6.2 Timber Posts and Struts

- 2.6.2.1 Timber fence posts and struts shall conform with the requirements of I.S. 436 : 2007.
- 2.6.2.2 The minimum length of posts and struts, shall be as follows:
 - 2.6.2.2.1 The minimum overall length of the intermediate post shall be 3000 mm.
 - 2.6.2.2.2 The minimum overall length of the vertical post within H Frame shall be 3000mm.
 - 2.6.2.2.3 The minimum overall length of the straining post shall be 3000 mm.
 - 2.6.2.2.4 The minimum overall length of the strut (horizontal post) for H Frame shall be 2100 mm.
- 2.6.2.3 The minimum cross sections of posts and struts, in accordance with I.S.436:2007, shall be as follows:
 - 2.6.2.3.1 The cross section of the intermediate post shall be 125mm diameter.
 - 2.6.2.3.2 The cross section of the vertical post within the H Frame shall be 125mm diameter.
 - 2.6.2.3.3 The cross section of the straining post shall be 225mm diameter.
 - 2.6.2.3.4 The cross section of the strut shall be 125mm diameter.
- 2.6.2.4 H-frames or straining frame shall be constructed at each end of a run of deer fencing, at each acute change of direction (more than 30°), and as interval frames in any run exceeding 200 metres.
- 2.6.2.5 The vertical posts within H frames shall be positioned at least 2m apart.
- 2.6.2.6 The horizontal post shall be securely fixed to the verticals by either galvanised steel rods, or by a rebated joint.
- 2.6.2.7 Straining posts may be used for changes in the direction of the fence of less than 30°.
- 2.6.2.8 Intermediate posts shall be spaced at a maximum distance of 3.5 metres for standard fencing.
- 2.6.2.9 In rough terrain, the distances between posts should be appropriately reduced and in agreement with the Iarnród Éireann Engineer in advance of works commencing.

2.6.3 Fencing Wire

- 2.6.3.1 Rectangular wire mesh shall be HT/17/190/15, formed of zinc-coated high tensile horizontal line wires with a minimum diameter of 2.5mm, and zinc-coated mild steel vertical wires with a minimum diameter of 2.5mm. It shall comply with EN10223-2 (Galvanised to Class A).
- 2.6.3.2 Joint knotting shall either be hinged-joint or tight-lock knotting.

2.6.4 Foundations

- 2.6.4.1 Posts with pointed ends shall be driven into the ground to a minimum depth of 1000mm.
- 2.6.4.2 Posts with flat ends shall be placed by excavation and set in concrete in accordance with section 2.2.5 of this specification (see drawing A.4-2 for this alternative post foundation if specified).

- 2.6.4.3 Vertical posts within H-Frame shall be driven 1000mm into the ground or placed in an augered hole
- 2.6.4.4 Straining posts shall be driven 1m into the ground or placed in an augered hole.
- 2.6.4.5 Intermediate posts shall be driven 1m into the ground or placed in an augered hole.

2.6.5 Installation

- 2.6.5.1 Horizontal line wires as specified above shall be securely fixed to the outer post of the H-frame. Each line wire shall be taken round this post and fastened to itself either by tying, or by a pre-formed fenced connector.
- 2.6.5.2 The entire fence shall then be strained and stapled in accordance with the specifications of the mesh manufacturer.
- 2.6.5.3 The diagonal tensioning wire of the H-frame shall be 3.15mm diameter, and meet the requirements of BS 4102.

2.7 Horse Fencing

2.7.1 General

- 2.7.1.1 Horse fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A.
- 2.7.1.2 All posts shall be four-way pointed and all rail ends shall be cut square. In addition all retaining board ends and top board ends shall be cut square.
- 2.7.1.3 Wire mesh fence to be constructed using pressure creosoted timber octoposts (or similar approved) and a top board to make the fence visible to horses.
- 2.7.1.4 The type of horse fencing shall be specified by the Iarnród Éireann Engineer.

2.7.2 Timber Post and Rail

2.7.2.1 Materials

- 2.7.2.1.1 Posts shall be scots pine (*Pinus Sylvestris*) or similar approved, grading in accordance with table 2A and 2B of the Department of Agriculture and Food minimum specification for Farm Fencing, full pressure impregnated with Creosote classified and approved in accordance with European directive 94/60EC penetration class P8 and retention demand Post Class A and shall have a moisture content not exceeding 26% when measured in accordance with I.S. 437 and shall be certified in accordance with ISO 9002 and ISO14001.
- 2.7.2.1.2 Posts shall be, at least, 150 mm x 75 mm, and shall be, at least, 1.95 m long.
- 2.7.2.1.3 The posts shall be erected with at least 600 mm below ground and 1350mm above ground.
- 2.7.2.1.4 The maximum spacing of posts shall be 2.4 m.
- 2.7.2.1.5 Rails shall be, at least, 100 mm x 47 mm where the posts are spaced at 2.4 m centres and 100 mm x44 mm where the posts are spaced at 2.1 m centres.
- 2.7.2.1.6 Where 3 rails are used they shall be spaced at no more than 400 mm centres.
- 2.7.2.1.7 Where 4 rails are used they shall be spaced at 300 mm centres.
- 2.7.2.1.8 Rails shall be on the paddock side of the fence.
- 2.7.2.1.9 Nails shall be at least 100mm long and 4.2mm diameter steel nails to IS EN 10230-1.

2.7.2.2 Installation

- 2.7.2.2.1 Rails and top boards shall be fixed to the field side of posts. The top of the rail should always finish flush with the top of the post.
- 2.7.2.2.2 Rail and top board joints shall be staggered so that only alternate joints occur on one post. They shall be butt jointed along the centreline of each of the posts.
- 2.7.2.2.3 Each rail or top board shall be fixed to each post with two nails driven in on the skew by hand or mechanical means.
- 2.7.2.2.4 Rails or top boards which split during railing are not permitted. Where splitting of the rails or top boards is encountered, it is recommended that all remaining rails and top boards shall be pre-drilled.

2.7.3 Specialised Horse V Mesh Fence

2.7.3.1 Posts

- 2.7.3.1.1 Intermediate posts for specialised horse wire fencing shall be at least 2100 mm long and a minimum of 125mm diameter (or equivalent area) timber creosoted Octopost (or similar approved see cl 2.7.2.1.1).
- 2.7.3.1.2 For intermediate posts a minimum of 1500 mm shall be above ground and a minimum of 600 mm shall be below ground.
- 2.7.3.1.3 The maximum spacing of intermediate posts shall not exceed 2.7 metres where a top board is fitted.
- 2.7.3.1.4 Strainer posts shall be at least 2700 mm long, and shall be at least 200 mm diameter (or equivalent area) timber creosoted Octopost (or similar approved see cl 2.7.2.1.1).
- 2.7.3.1.5 For strainer posts a minimum of 1500 mm shall be above ground and a minimum of 1200 mm shall be below ground.
- 2.7.3.1.6 Strainer posts shall be spaced at a maximum of 150m.
- 2.7.3.1.7 In soft ground, the strainer length may have to be increased to provide the necessary stability.
- 2.7.3.1.8 Strainers shall be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.
- 2.7.3.1.9 Where rock or other obstructions are encountered the post shall be set in concrete. The concrete base shall be 750 mm deep for boundary and paddock fencing and 900 mm deep for lunging and turnout areas.

2.7.3.2 Fencing Wire

- 2.7.3.2.1 Horizontal line wires to consist of 2-ply wire of at least 2.7mm diameter diameter high tensile galvanised or zinc / aluminium coating wire, galvanised or zinc / aluminium coating to I.S. E.N 10244-2 (Galvanised to Class A using a Galfan type alloy) steel wires galvanised at 100mm spacing, see drawing A2. Appendix A.
- 2.7.3.2.2 Vertical wires shall have a V formation to create a small opening which does not allow horses or foals to put their legs through or get caught in the wire.
- 2.7.3.2.3 Vertical wires shall consist of at least 2.7mm diameter galvanized steel.
- 2.7.3.2.4 Vertical wires shall be securely wrapped around each horizontal wire run diagonally to make a diamond pattern.
- 2.7.3.2.5 The Specialised Horse wire shall have closely spaced, 50mm x 100mm diamond-mesh construction.
- 2.7.3.2.6 The height of the wire is to be 1.2m and erected on the field side of the post.
- 2.7.3.2.7 The specialised horse wire which shall be fixed to the field side of the fence, shall be brought up from ground level to 25mm min past the bottom of the top board as shown in drawing A3 in appendix A.
- 2.7.3.2.8 The top and bottom members are recommended to be at least 3.5mm diameter galvanised or zinc / aluminum coating steel wires.
- 2.7.3.2.9 Specialised Horse Wire shall be fixed to the posts with galvanised or zinc / aluminium coating staples 5No. at each Post.
- 2.7.3.2.10 To prevent splitting of the post, staples should be driven at an angle and staggered along the length of the post. Staples should not be driven home fully as such staples will inhibit movement of the fencing wire and will damage the galvanised or zinc / aluminium coating.
- 2.7.3.2.11 Staples shall be minimum 40 mm x 3.55 mm round standard or barbed wire to I.S. 105-1. The coating shall comply with I.S. EN 10244-2.

2.7.3.3 Top Boards

2.7.3.3.1 All top boards to be pressure creosoted timber.

2.7.3.3.2 Top boards shall be at least 5400mm long and at least 175 mm x 40mm. The top board shall be located to the field side of the fence posts.

2.7.3.4 Installation

2.7.3.4.1 The maximum spacing of intermediate posts shall not exceed 2700 mm where a top board is fitted.

2.7.3.4.2 If specified in advance by the Iarnród Éireann Engineer, that the top board is to be replaced by 2.5 mm high tensile wire, the intermediate post spacing may be increased to 4m. This must be agreed in writing, in advance, with the Iarnród Éireann Engineer.

2.7.3.4.3 Strainer posts shall be spaced at a maximum of 150m.

2.7.3.4.4 In soft ground, the strainer length may have to be increased to provide the necessary stability.

2.7.3.4.5 Strainers shall be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient. Top boards shall be at least 5400mm long and at least 175 mm x 40 mm.

2.7.3.4.6 Fixing of top boards to posts - Top boards shall be fixed to the field side of the posts. They shall be butt jointed along the centreline of each of the posts. Top boards to be pre-drilled to prevent splitting. Each top board shall be fixed to each post with two 100mm Galvanised Screws, screwed in on the skew by hand or mechanical means. Top boards which split during railing must be replaced.

2.7.3.4.7 The top board shall be located at the top of the fence posts, and the specialised horse wire, as described in clause 2.3.7, shall be brought up from ground level to within 225mm of the top rail.

2.8 Post and Chain-link Fence Specification

2.8.1 General

2.8.1.1 The Chief Engineer's requirements concerning concrete post and Chain-link fencing in addition to all other statutory requirements (Irish Standards, British Standards and any others specified) and other specified requirements, as shown in appendix A, drawing A.6-1 must include the following:

(a) There are to be seven strands of line wire, see appendix A, drawing A.6-1 for positioning of wire.

(b) Chain Link 1500mm High 2.24/3.15mm Galvanised & PVC Coated (RAL6005).

2.8.2 Precast concrete posts

2.8.2.1 Precast concrete fence posts and struts shall conform with the requirements of I.S. 136:1982 in all aspects other than length.

2.8.2.2 The minimum overall length of the intermediate post shall be 1990 millimetres (6 feet, 6 inches). The minimum overall length of the straining post shall be 2270 millimetres. The minimum overall length of the strut shall be 2140 millimetres.

2.8.2.3 Any length of concrete post fencing (including branches or spurs) shall start with a straining post and shall end with a straining post.

2.8.2.4 The spacing between intermediate posts or between an intermediate post and a straining post shall not be greater than 3.0 metres.

2.8.2.5 On straight lengths of fence, straining posts shall be spaced at a distance not greater than 70 metres. In these cases the wire must be tensioned at these posts using ratchets, then continue the fencing with another length of 70m.

2.8.3 Fencing Wire

2.8.3.1 The galvanising shall comply with I.S. EN 10244-2 (Class A) and B.S. 443 : 1982. The line wire shall consist of 10 s.w.g. (3.15 millimetre diameter) high tensile steel wire complying with I.S. 126:1982.

2.8.3.2 The line wire shall pass through each of the holes in the post.

2.8.3.3 Eye bolt strainers shall consist of bolts of 250 mm overall length and not less than 9.5 mm diameter with a welded eye at one end. They shall be threaded and fitted with nuts and washers.

2.8.3.4 Two-way eye bolt strainers shall be fitted with ring nuts. Eye bolt strainers shall be hot dipped galvanised in accordance with BS 729:1971 (1994) with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).

2.8.3.5 Winding brackets intended for attachment to a post shall be manufactured from mild steel flat not less than 45mm x 2mm and shall be fitted with a winding bolt of 12 mm minimum diameter and with a friction type ferrule or ratchet winder. One end of the winding bracket shall be provided with a hole for the attachment of the bull wire.

2.8.3.6 Winding brackets, fixing bolts and nuts shall be hot dipped galvanised in accordance with BS 729 : 1971 (1994) with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).

2.8.3.7 The Contractor shall ensure that connectors are designed to match the diameter and type of bull wire used. One connector is adequate for terminating a bull wire at a straining post, two connectors are required to join two bull wires in a continuous run.

2.8.3.8 Chain-link shall meet the following requirements: Chain-link fencing wire shall comply with BS443. Chain-link to be galvanised and PVC Coated (RAL 6005). The galvanising shall comply with I.S. EN 10244-2 (Class A or Class B using Galfan alloy). Chain-link wire shall consist of 2.24/3.15mm diameter wires. The Chain-link fence shall be 1500mm high and the maximum mesh aperture shall not exceed 50mm x 50mm.

2.8.3.9 Chain-link shall be fixed to the concrete post bull wires adequately with stirrup wire. The Chain-link is to be fixed to the field side of the fence. Tying wire shall be 1.6 mm diameter galvanised mild steel wire to I.S. 126. The galvanising shall comply with I.S. EN 10244-2 (Class A).

2.8.4 Foundations

2.8.4.1 Concrete for surrounding the bases of posts and struts shall be 20N20 Ready-mix. The concrete shall be placed in position before the commencement of the initial set. The contractor must make available concrete sample for cube test if requested by IE Engineer at any stage.

2.8.4.2 Excavated holes for posts and struts shall have vertical sides except that it shall be permissible for the side of a strut hole adjacent to the post to be sloped.

2.8.4.3 The following are the minimum sizes of excavated holes for each post and strut:

Straining post	-	900mm deep x 450mm square
Intermediate post	-	600mm deep x 300mm square
Strut	-	750mm x 300mm x depth to suit (min 450mm)

2.8.4.4 After insertion of the post or strut, the hole shall then be filled to the top with concrete (As specified above in section 2.8.4.1), which shall be well rammed as the filling proceeds. After the concrete has hardened, the concrete shall be covered with an approved good quality material which shall be finished proud of the surrounding ground.

2.8.5 Erection

2.8.5.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.

2.8.5.2 Straining posts shall be provided at all ends and corners and at changes of direction or acute variations in level.

2.8.5.3 Struts shall be fitted to all straining posts in the direction of each line of fencing.

2.8.5.4 Intermediate posts shall be provided at intervals, measured centre-to-centre of posts, not exceeding 3.0 metres.

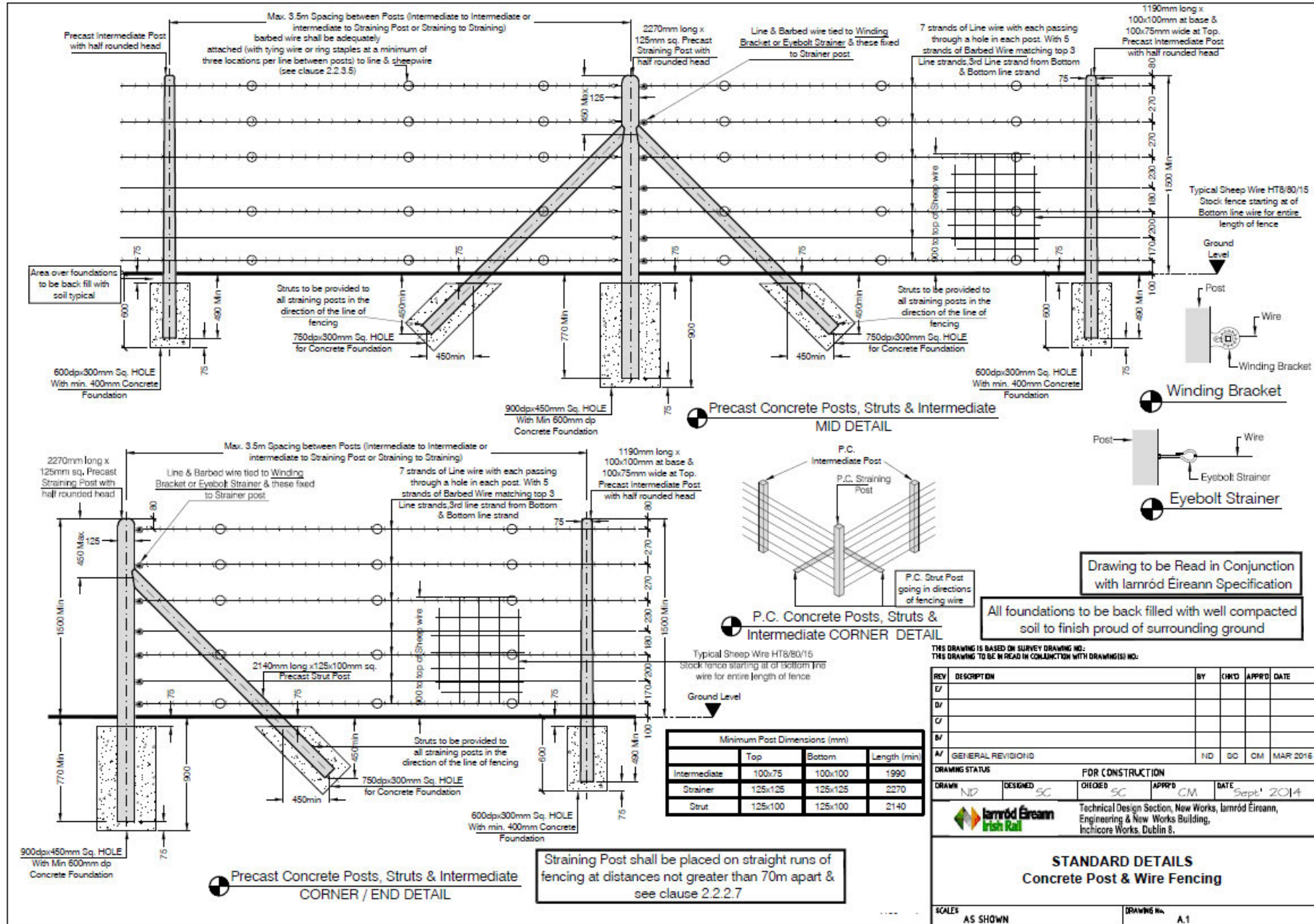
2.8.5.5 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence. When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging. The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.

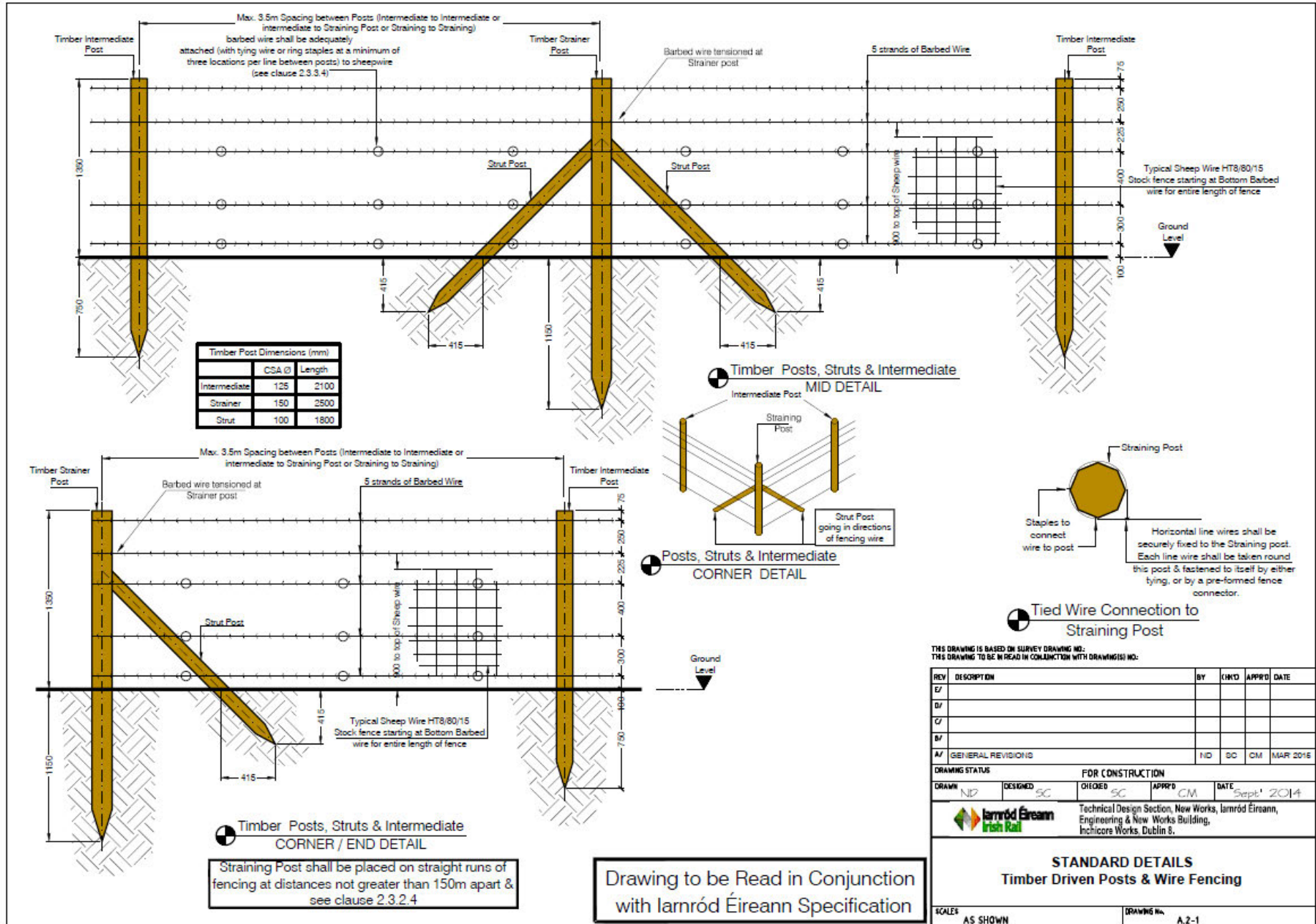
3 Revision History

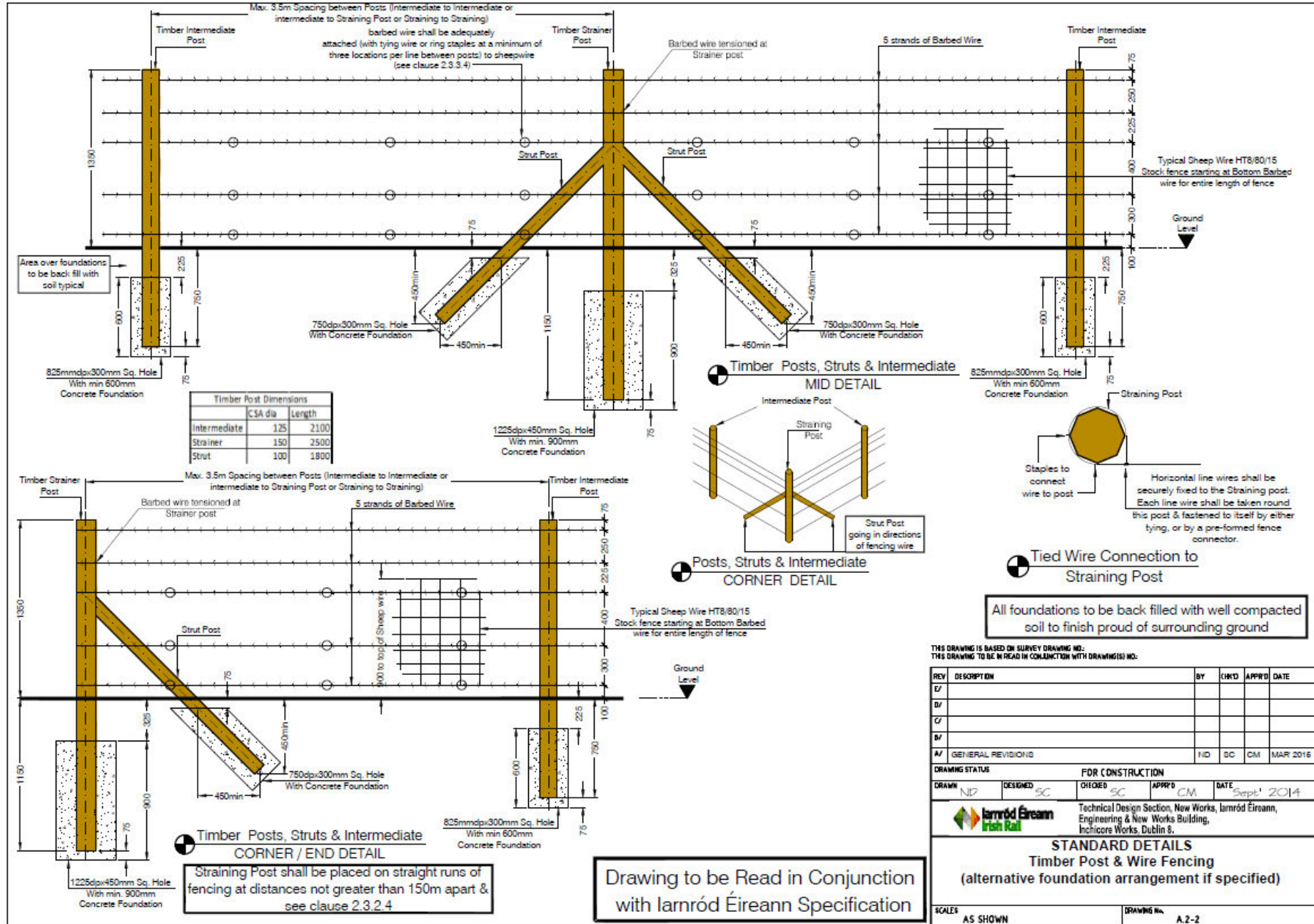
Version No and Date	Section No and Reason for Change
1.0 – 11 March 2014	New document, replacing all existing fencing specifications.
1.1 – 15 October 2014	Includes standard detail drawings for all fence types Concrete Post and Chain link included.
1.2 – 30 March 2015	Minor amendments and clarifications to clauses and drawings.
1.3 – 07 July 2015	Minor amendments to clause 2.1.1.4 and clauses 2.1.2.7-2.1.2.9 (removal of ecoplugs reference). Amendments to Section 2.6 Deer Fencing (clause 2.6.1.2, clause 2.6.2.8 and clause 2.6.3.1 amended, clause 2.6.1.3 removed).
1.4 – May 2019	Review of document undertaken to ensure fitness for purpose with regard to the type, quality and standard of fencing being used

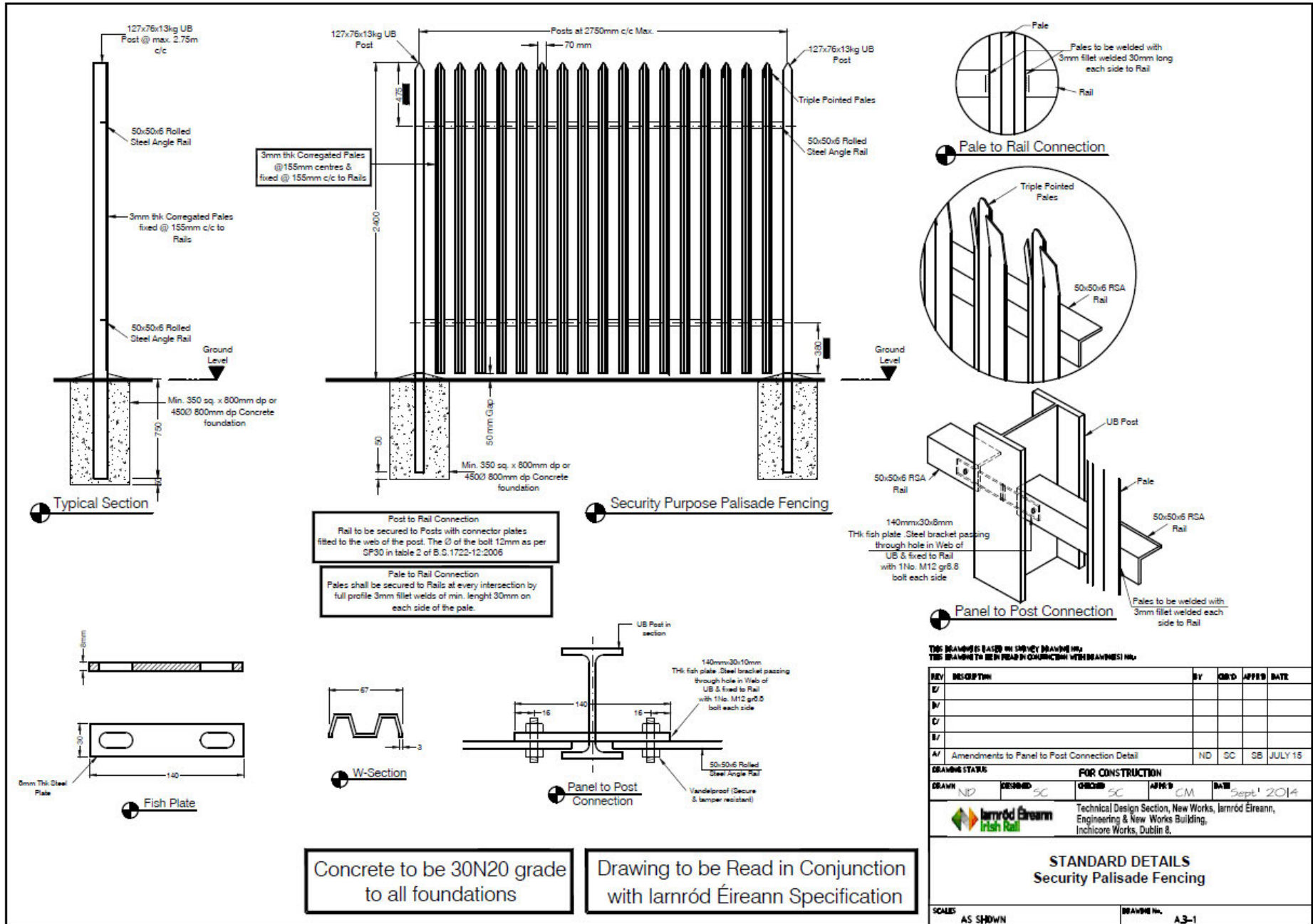
End of Technical Specification

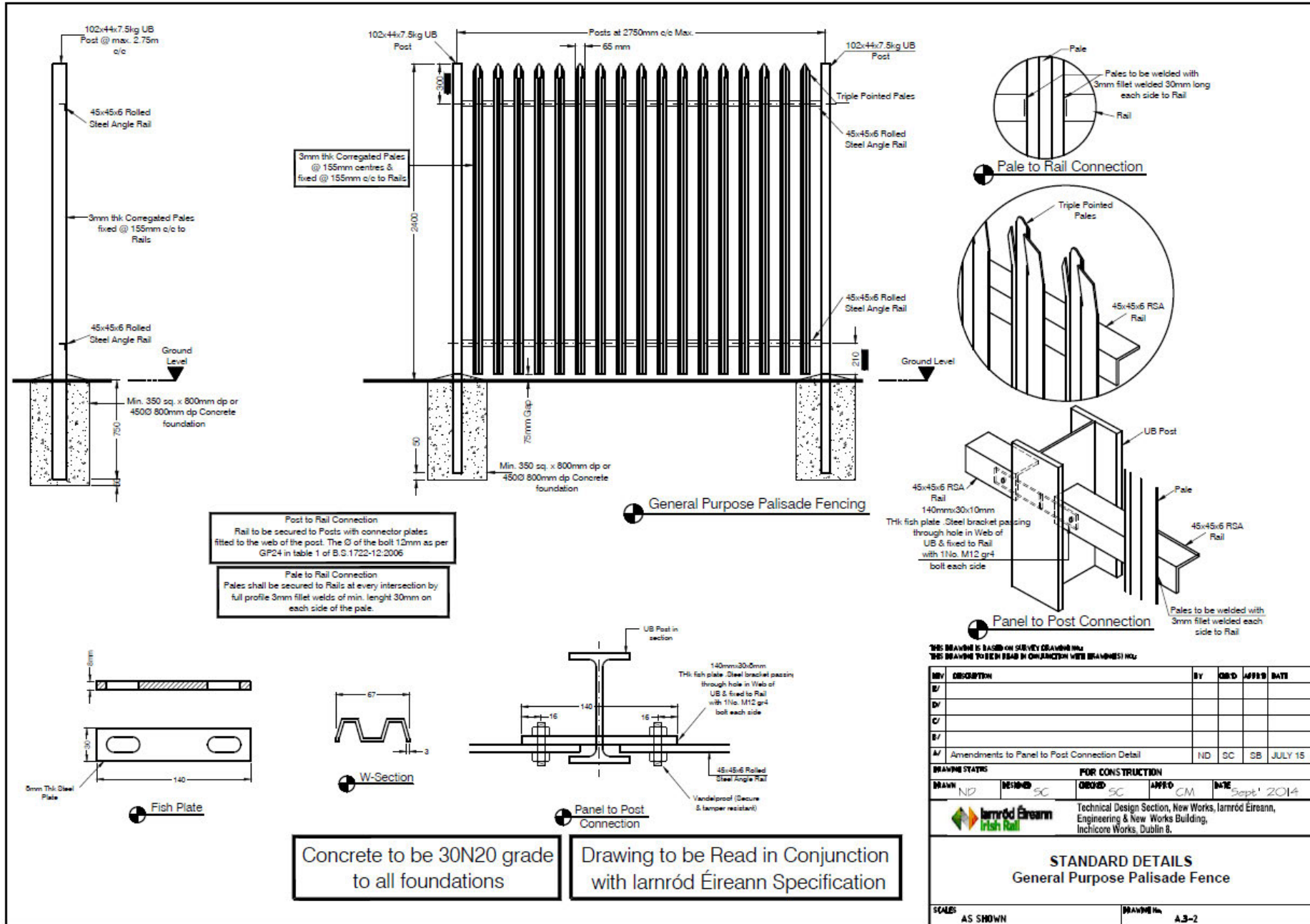
Appendix A Fencing Standard Details

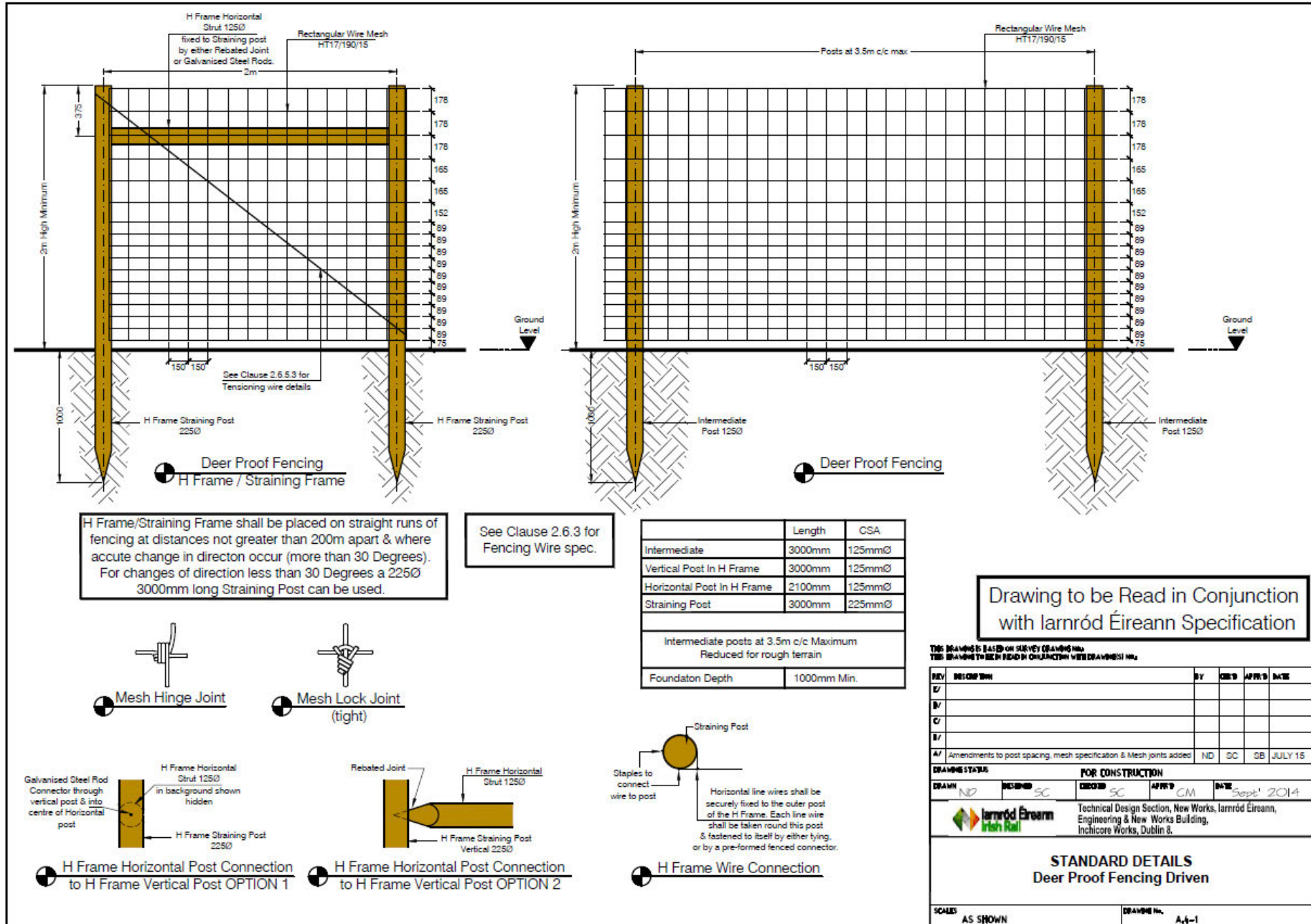


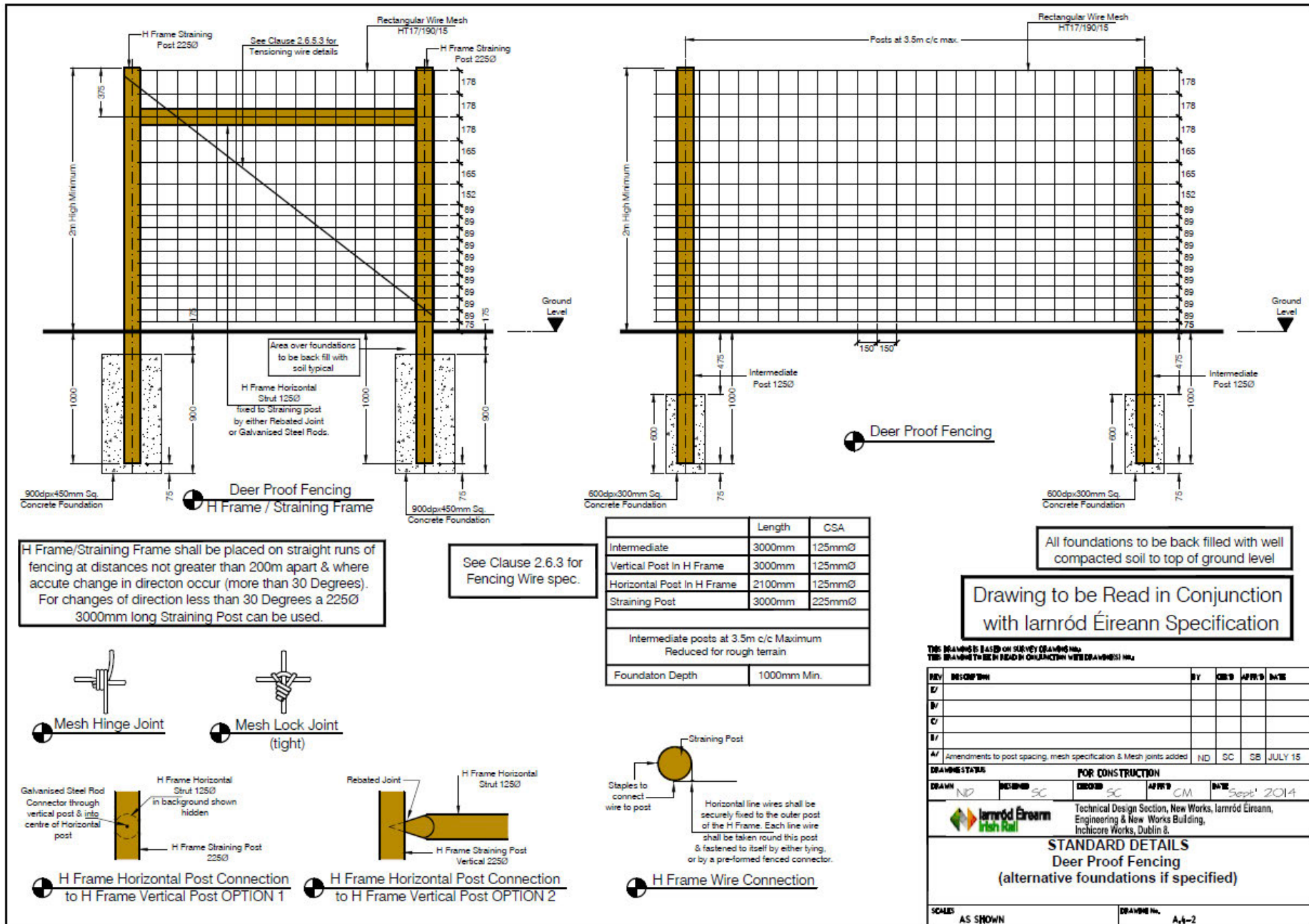


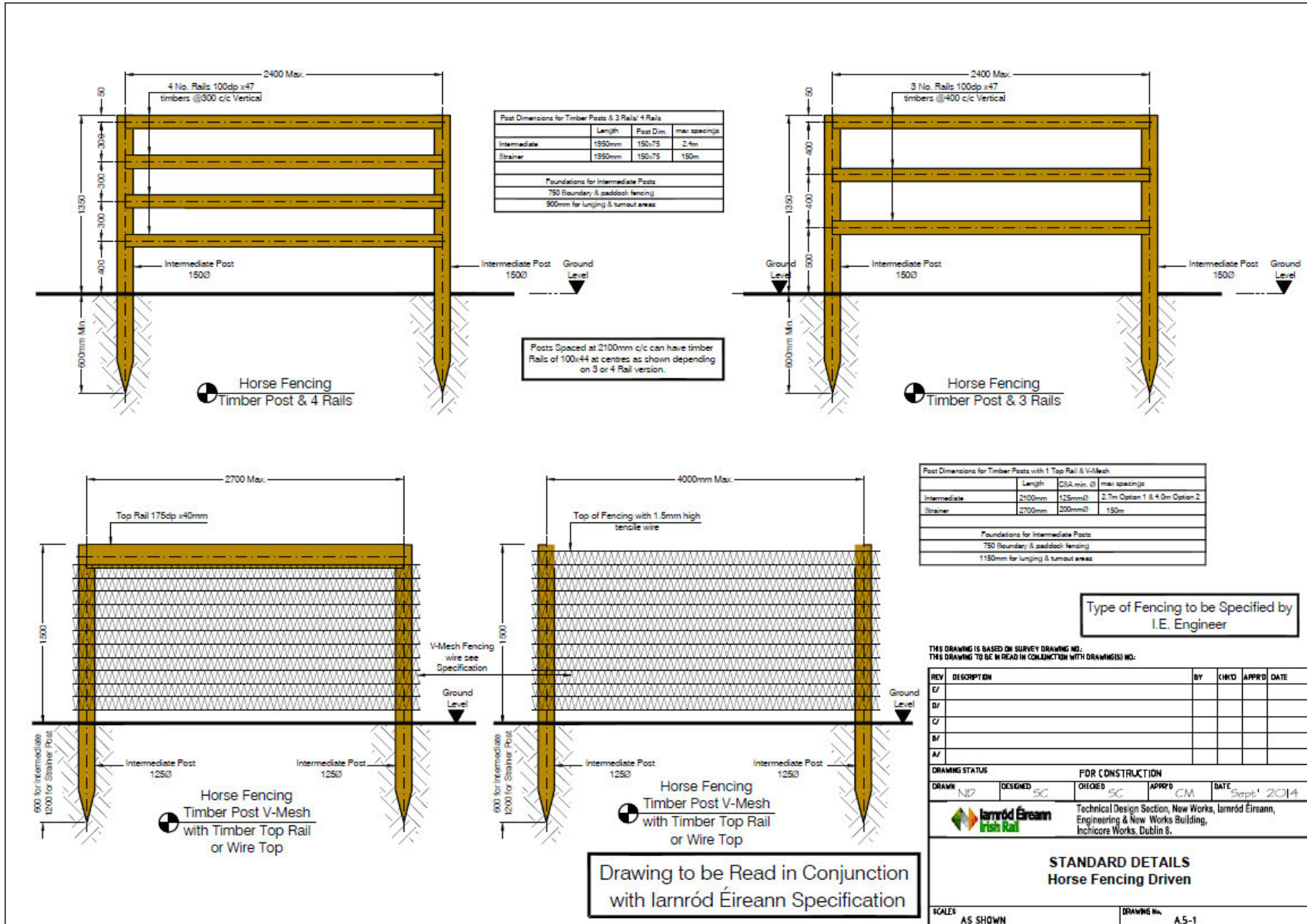


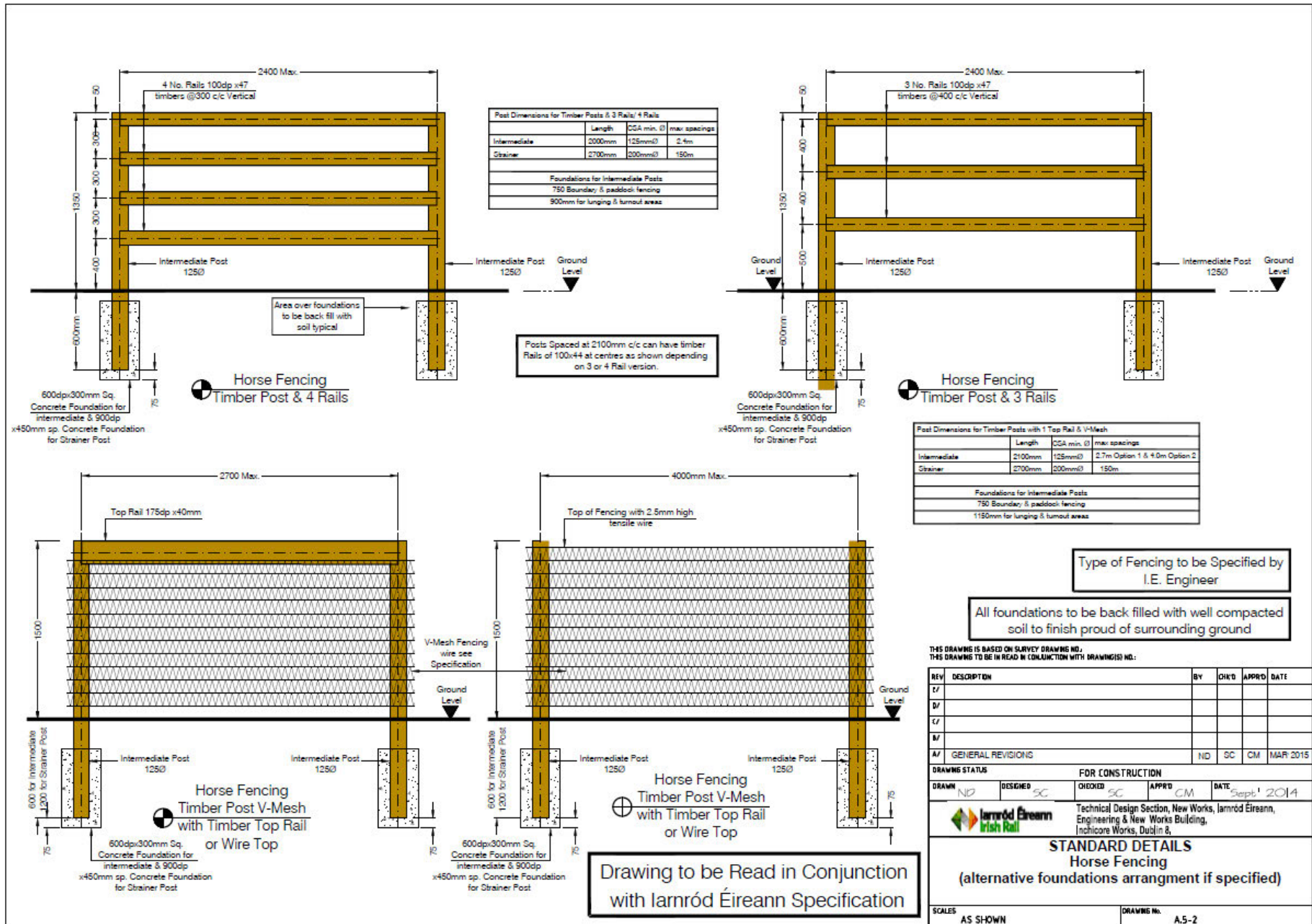


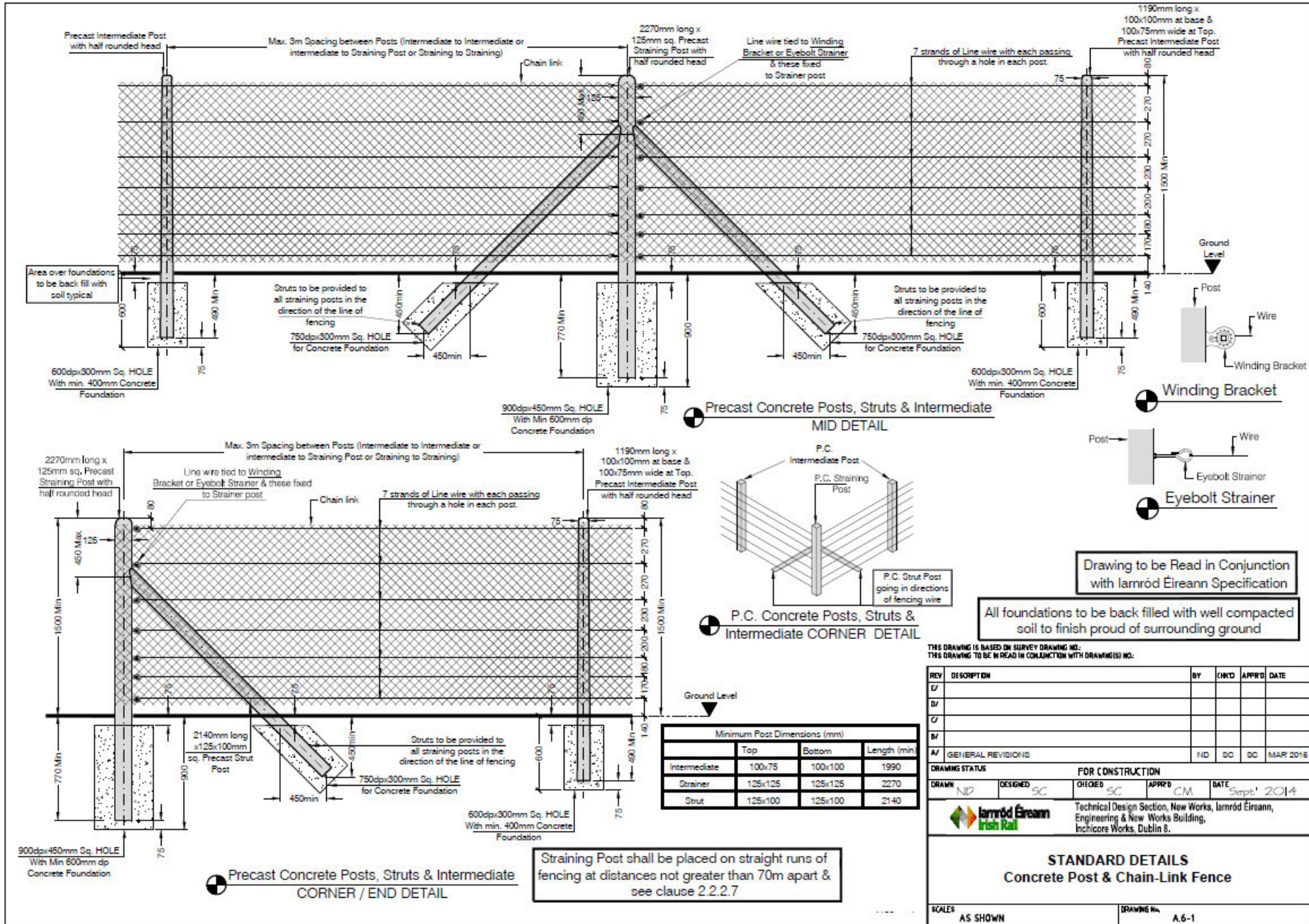












INSTRUCTIONS ON USE OF SITE AND RAILWAY SAFETY

1. Restrictions due to Railway Operations

- 1.1 Most works will be situated close to main railway lines with trains operating throughout the day and night. The dangers of working near the railway are in addition to those encountered elsewhere. In particular it should be noted that trains can be passing at speeds up to 100 mph, and that all works **must** be carried out in such a manner that the railway is maintained in a safe operating condition at all times
- 1.2 No item of plant, machinery or their appendices i.e. crane jibs, buckets of J.C.B.s etc. while stopped, moving or working may come within a distance of 3 metres of the running edge of any railway line which is open to traffic without the Charge-hand obtaining the permission of IE's Contact Person.
- 1.3 Tools and materials must be at least 2 metres from the nearest rail during the passing of trains.
- 1.4 Personnel must move to, and remain in, a designated "Position of Safety" when a train is approaching / passing; in any event personnel shall remain at least 1.5 metres from the nearest rail during the passing of a train. .

2. Overhead Electric Wires

- 2.1 IE's Overhead Line Equipment ("O.H.L.E.") is electrified at 1500 volts D.C. and is dangerous to human life.
- 2.2 Contractor's personnel shall observe the following precautions with respect to the O.H.L.E:
 - (a) it must be assumed that the O.H.L.E is live at all times and that all contractor's Personnel shall keep at least 1.0 meter (three feet) from any part of the O.H.L.E that is live. ("Prohibited Space");
 - (b) work must not be carried out, or cranes or other plant erected, operated or dismantled, or materials stored without the Charge-hand obtaining the agreement of [IE's Contact Person];
 - (c) when the Contractor's Personnel are handling tools or materials adjacent to the Prohibited Space then the Prohibited Space shall be increased by the length of any tool or material being handled. However, normal work on the track, station platform, walkways and the like, below the equipment is permitted without special precautions, provided that tools or equipment are not at any time raised above head height;
 - (d) [when scaffolding is being erected or dismantled that can encroach on the Prohibited Space, the Charge-hand shall seek the approval from

IE's Contact Person as a permit to work will be required ("Permit to Work");

- (e) portable ladders used in the vicinity of the O.H.L.E shall be of timber or other non-conducting material and shall not be reinforced by metal attachments running along the stiles of the ladders. Ladders can lead to serious shocks if allowed to come close to the O.H.L.E and therefore, special precautions must be taken to ensure that the ladder cannot slip and encroach on the Prohibited Space; and
- (f) any disturbances of or attachment to any equipment forming part of the O.H.L.E must only be carried out if the Charge-hand has received the approval of IE's Contact Person.
- (g) Debris produced when trimming or felling trees or from demolitions etc must not fall or be projected onto the prohibited space.
- (h) If a crane or other equipment is being used, crane stops, fencing, warning notices etc shall be provided by the Contractor to ensure that there can be no encroachment on the prohibited space by the crane, its load or other equipment even if the crane load or equipment slips, falls or overturns.

When IE's Contact Person considers it is impractical to comply with any of the above requirements he will arrange for special precautions to be taken and will inform the Charge-hand of same.

2.3 It is the responsibility of the Contractor when "Permit to Work" is issued to:

- (a) confirm immediately to IE's Contact Person his understanding of the limits of isolation;
- (b) ensure that the Contractor's Personnel fully understand the limits of the isolation;
- (c) ensure that no work is commenced within the limits of isolation unless and until the Permit to Work has been issued; and
- (d) ensure that on completion of the work requiring the isolation all Contractor's Personnel withdraw from the protected area and that IE's Contact Person is informed that the Permit to Work can be withdrawn.

3. Possessions

3.1 Rail traffic ceases to operate over a given stretch of railway line when IE's Contact Person takes a possession of that line ("Possession"). The Contractor shall note that all railway lines must be assumed to be open to railway traffic unless IE's Contact Person clearly indicates to the Charge-hand that a Possession has been taken of a particular line for a particular period. In the case where a Possession has been taken, IE's Contact Person will inform the

Charge-hand that work may be carried out alongside the line. It is important to note that engineering trains, locomotives and on-track machines may still run during a Possession.

3.2 Possessions are of two types:

- (a) TII Possession - these possessions are periods given between normal train operations and do not normally involve diversions or cancellations of trains. They are given where work is to be carried out close to a line without interfering with the track itself, and are given on the basis that the work can be stopped and the Possession cancelled at any time to allow a train to pass.
- (b) TIII Possessions - these possessions are periods when normal train operations over a given stretch of track are cancelled for a period, and may involve diversion or cancellation of trains.

4. On Site Safety Requirements

4.1 The following safety precautions are required to be taken by all Contractor's Personnel:

- (a) Train drivers' views of signals, signs, notices, etc. must not be obstructed in any way, for any reason during the progress of the works.
- (b) All precautions are to be taken to ensure that no damage or accidental disconnections occur to the signals, signal control or to telephone cables etc. The location of the signal control cables will be pointed out to the Charge-hand by the Contractor's Personnel and no interference whatsoever is allowed to these.
- (c) At no time are machines to be driven over the railway tracks without the Charge-hand obtaining the permission of IE's Contact Person. When lookout protection is in place all Contractor's Personnel must comply with the procedures as stated during Personal Track Induction training.

4.2 When a train approaches the site or when instructed to do so by a look-out man all, Contractor's Personnel on or near the railway tracks must adhere to the following:

- (a) Move to the pre designated place of safety that has been indicated to the Charge-hand by IE's Contact Person.
- (b) Put down all tools clear of the line, 2 metres
- (c) Acknowledge the audible warning given by the train crew by raising one arm above the head.

- (d) Only when IE's Contact Person has indicated to the Charge-hand that it is safe to resume work, work may be resumed. In particular, care should be taken before resuming work that another train is not approaching on another line. It should be noted that at times trains may approach in either direction on either track.

5 Health and Safety

- 5.1 All Contractor's Personnel will be required to wear orange high visibility vests/jackets at all times: [these will not be supplied by IE]. The words "Contractor" or the actual contractors name may be printed on the back. The signing of the printing to be such that it does not interfere with the effectiveness of the vest or jacket or the reflectorised stripes. Any Contractor's Personnel found not to be wearing an orange high visibility jacket on site will be instructed to leave the site forthwith. Contractor's Personnel must not wear red or green clothing, or red or green helmets.

All Contractor's Personnel, must wear personal protective equipment, which shall include steel toe capped footwear, hard hats, ear defenders, safety masks, safety goggles etc. [and as outlined in the relevant Safety Statement issued in connection with the works]. Failure by the Contractor's Personnel to comply with this instruction will result in their removal from the site.

- 5.2 All staff to be employed by the Contractor must be in possession of an up to date Safe Pass card when undertaking work on a Construction site under the Safety, Health & Welfare at Work (Construction) Regulations 2006, as the Railway is deemed a construction site.

All staff to be employed by the Contractor, including Supervisors shall attend an induction Personal Track Safety (PTS) course in safe railway work practice prior to the commencement date.

Code of Conduct for Suppliers & Business Partners

Iarnród Éireann – Irish Rail

Procurement & Materials Department
Inchicore Railway Works
Dublin 8
IRELAND

January 2008

1. Guiding Principles

The guiding principles governing our employees relationship with our Business Partners,¹ which are detailed in the CIÉ Group Code of Business Ethics for Employees, include;

1. Integrity
2. Confidentiality of information
3. Legality
4. Disclosure of Interest
5. Loyalty
6. Fairness
7. Consideration for work/external environment

These principles apply equally to our Business Partners. The purpose of this document is to inform our Business Partners of Iarnród Éireann expectations of in relation to conducting business or seeking to conduct business with Iarnród Éireann.

2. Basis of purchasing decisions

Purchasing decisions and contract awards are made **solely** on the basis of the offers submitted, in accordance with the award criteria for the particular tender or request for quotation. At all times any impropriety, or even the perception of any impropriety, must be avoided.

3. Responsibilities of our Business Partners

Iarnród Éireann's Business Partners are required to comply with this Code of Conduct for Suppliers and must ensure that all of their employees, sub-contractors, and agents, who come in contact with Iarnród Éireann are made aware of, and comply with this Code of Conduct. The Statement of Commitment (see Appendix 1) must be signed off by all Business Partners who conduct or wish to conduct business with Iarnród Éireann.

4. Main Requirements.

a. Bribes, Kickbacks and Commissions

- These are PROHIBITED.
- They may not be given, received, offered or solicited; whether directly or indirectly through a third party.

b. Gifts and Hospitality

- Gifts are not necessary nor are they expected
- Where gifts are given, they should be infrequent and of nominal value. Under the Iarnród Éireann Employees Code of Business Ethics the maximum total value of gifts that can be accepted by an Iarnród Éireann employee is €65.
- In the event of gifts of higher value (e.g. Christmas Hampers) being received by employees, it is company policy that the employee advises their supervisor or manager and returns the gift.
- Iarnród Éireann employees are prohibited from soliciting gifts or favours from Business Partners and any such requests should be advised to Iarnród Éireann (see 4g below).

¹ Defined as suppliers, contractors, service providers and consultants (including their employees, servants, agents and sub-contractors)

c. Hospitality

- Hospitality should be modest and appropriate to the business situation
- The provision of overnight accommodation, overseas travel, motor vehicles or use of motor vehicles is PROHIBITED.
- Meals may be provided in the business context, such as when an employee is on a visit to a business partners premises, but they should not be lavish or overly expensive or frequent.
- Employees are obliged to report all offers of hospitality to their supervisor

d. Conflict of Interest

- Iarnród Éireann employees and Business Partners must avoid any situation that is, or may be perceived as, a Conflict of Interest.
- Iarnród Éireann employees must represent Iarnród Éireann's best interests and both the employee and the Business Partner are required to disclose the following
 - Any close relationship that could affect the business relationship or a business decision
 - Any common business interests
 - Close family ties with persons who can influence the business decision.

e. Use of Coras Iompair Éireann / Iarnród Éireann name or logo

1. Business Partners may not use the names or logos of Coras Iompair Éireann or Iarnród Éireann without prior specific written permission of the Company Secretary.
2. This is dealt with in detail in our Conditions of Contract.

f. Attempt to canvass or influence a Purchase Decision

1. Any improper attempt to influence a purchasing decision or to canvass can, and will, lead to exclusion from the tender process and other actions.
2. This is dealt with in detail in our Conditions of Tender.

g. Confidentiality and Reporting

1. Business Partners are required to report concerns regarding ethical issues or violations of this Code of Conduct by an employee of Iarnród Éireann, by their employees, or by a third party to:
 - The Head of Internal Audit, CIE Group, Áras Éanna, 60 Gardiner Street Lower, Dublin 1
 - Or
 - The Chief Financial Officer, Iarnród Éireann, Connolly Station, Dublin 1
 - Or
 - Group Chief Financial Officer, CIE, Heuston Station, Dublin 8
2. Preferably in writing
3. Signed is preferable and confidentiality will be assured, but anonymous claims will also be investigated.
4. If you make a signed report, and do not get a prompt acknowledgement and response, please contact the Chief Executive Officer, Iarnród Éireann, Connolly Station, Dublin 1 directly.
5. If you require direction or advice in respect on any aspect of the Code, please contact the Manager, Procurement & Materials, Iarnród Éireann, CIE Works, Inchicore, Dublin 8. {Telephone (+353) 1 7033714}.

h. Consequences

1. Iarnród Éireann will treat substantiated contraventions of this Code of Conduct as a serious matter.

i. Contracts / Purchase Orders

1. It is Iarnród Éireann's policy and practice to issue an official purchase order prior to supply of materials or services or the commitment of resource by a supplier
2. In addition, for major contracts, a formal contract must be executed by the parties prior to commencement.
3. Invoices will not be processed without a valid purchase order
4. Accurate records (timesheets, delivery notes, etc.) must be kept and produced on request – falsification of records is PROHIBITED.
5. Iarnród Éireann pays only on verified receipt of goods, works or services.

j. Drugs and Alcohol Policy

1. Suppliers and business partners are bound by the Iarnród Éireann's Drugs and Alcohol Policy
2. The policy seeks to prevent accidents or damage to property , arising through oversights and errors of judgement as a result of the consumption of alcohol or drugs by staff, or Business Partners
3. Working on Iarnród Éireann property under the influence of alcohol or drugs is strictly prohibited.
4. Suppliers and service providers must ensure that all of their staff who work on Iarnród Éireann sites are familiar with this policy on drugs and alcohol and have systems in place to ensure that their employees abide by the policy.
5. Random testing of staff, suppliers, contractors and service providers will be undertaken and action taken against any staff member or supplier found to be in breach.

5. Summary

It is Iarnród Éireann's objective that all our business is conducted with uncompromising fairness, integrity and professionalism; with

- Strict compliance with the legal requirements of Irish and EU law
- Fair and open competitions
- Neither actual, nor perceived, conflict of interest.

Appendix 1

Statement of Commitment to Iarnród Éireann Code of Conduct for Suppliers and Business Partners

We, (NAME OF COMPANY) _____

ADDRESS: _____

Undertake to fully implement the requirements in this Code of Conduct for Suppliers and Business Partners in respect of all our dealings with Iarnród Éireann and Coras Iompair Éireann.

We understand that the Code applies to our employees, agents and sub-contractors.

We confirm our acceptance of the Iarnród Éireann Drugs and Alcohol Policy.

We understand that breaches of this Code may lead to our organisation being excluded from participation in future tenders.

SIGNATURE: _____ DATE: _____

POSITION IN COMPANY: _____

NAME (Please print): _____ TEL: _____

POSITION: _____

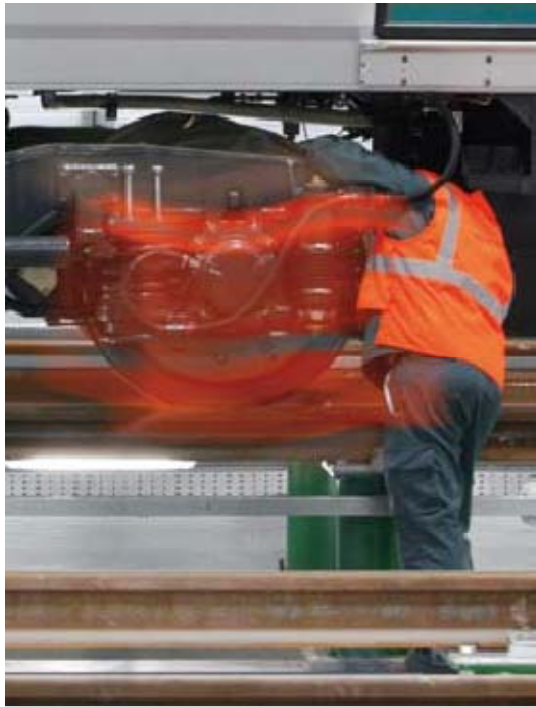
Signed (Director or Company Secretary): _____

Name (in BLOCK CAPITALS): _____

Date: _____

AFFIX Company Stamp

Please return this signed and completed page with your tender.



 **Iarnród Éireann** Drugs & Alcohol Policy





Iarnród Éireann Drugs & Alcohol Policy

Drawn up in consultation with organisations representing staff as required by section 88 of the Railway Safety Act 2005

1. Why the policy exists



Drugs and alcohol can affect our behaviour and how we perform everyday activities and our work. They can have immediate effects in the minutes, hours and days after being consumed. In addition, longer term dependency can result, with a continuous impact on our work and our relationships with colleagues, friends and family.

Every one of our actions depends on messages from the brain. Drugs and alcohol can delay and distort these messages. Being under the influence of alcohol or drugs whilst in a work environment, or hazardous location, has serious consequences for our own safety, the safety of those around us and those who depend on us. Long term dependency can distort our perceptions of risk and our priorities.

Iarnród Éireann consists of several thousand people. We operate a complex mechanism upon which our customers make many millions of journeys every year. We interface with members of the general public on trains, at stations, level crossings and a whole range of other places and in a whole range of ways. These people all place their trust in us that we will look after them safely. They have limited knowledge, and virtually no control, over how we behave. Every one of us have a duty of care to exercise absolute vigilance in how we carry out our work, whether it be directly controlling trains, carrying out maintenance or construction, communicating messages planning work, monitoring or supervising colleagues.

Drugs have a very important place in the treatment of illness, from simple over the counter remedies to complex prescription and very special therapeutic drugs.

Iarnród Éireann must have a clear policy describing how we will manage the impact of drugs and alcohol on ourselves, our colleagues and our work place. That policy must identify the appropriate rules, both legislative and self imposed. It must clearly explain the processes for invoking those rules, and the subsequent actions, identifying who must carry them out. It must make clear the obligations of all those involved, and their balancing rights. Whilst taking cognisance of our primary duty of care to all those affected by our operations, the policy must also explain how we will implement our broader responsibility to provide appropriate medical support and counselling to those of us who need help.

2. Scope of the policy

The Railway Safety Act 2005 defines particular activities as Safety Critical. Any persons carrying out such activities, whether a direct Iarnród Éireann employee, contractor, sub-contractor or unpaid volunteer, is defined as Safety Critical and is subject to the provisions of the Act, including those pertaining to Drugs and Alcohol, and the testing thereof. Whilst their core job may not be so defined, there are many persons in the Iarnród Éireann organisation who may be called upon to carry out Safety Critical activities at short notice and outside of their normal job. As an example, all employees when travelling by train are required to make their services available to the train crew to assist in an emergency. Within the limits of our individual competencies, we could be called upon to carry out safety critical tasks.

Safety Critical Duties are defined in the Railway Safety Act 2005 as:

Driving a train, or in any other way controlling or affecting the movement of a train.

Controlling, affecting or managing, the movement of persons on a train, on a platform, across a level crossing, or, the boarding of, or alighting from, a train of persons.

Working in a maintenance capacity (as identified below) or as a supervisor of, or look-out for, persons working in such capacity.

A person works in the course of the operation of a railway undertaking in a maintenance capacity, if his or her work in the operation involves installation, repair, alteration or inspection of, railway infrastructure or trains, or involves coupling or uncoupling trains or performing a pre-departure examination of trains.

In addition, our Rule Book and Health and Safety at Work legislation both prohibit persons from reporting for duty under the influence of alcohol or drugs.

In recognition of these facts, in the interests of a fair distribution of responsibility and acknowledging the function of this policy in identifying and providing help to colleagues who may have a problem with alcohol or drug use, this policy will apply to all Iarnród Éireann staff, contractors and their sub contractors.

3. Objectives of the policy

The following objectives have been identified:

To prevent injury or death to customers, colleagues or visitors arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.

To prevent damage to, or the destruction of, the organisation's assets or equipment, or the property of customers, colleagues or visitors arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.

To ensure the welfare of colleagues, their families, friends and the wider community, where such welfare is compromised by an Iarnród Éireann staff members consumption of drugs or alcohol.

To guard against reduced performance by the organisation, either in terms of business opportunity or work execution, arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.



4. Lifestyle Management

It is the intention that every person in Iarnród Éireann, and our providers, will assume an ownership role of this policy. A policy such as this has a

potentially serious impact on our lifestyle both at work and leisure. If this were not so, it would be a failure. As such, every person who understands its significance for their welfare has assumed an ownership role. However, a policy of this type cannot be managed by a committee of thousands. It must have an owner, a nominated person or group who will receive suggestions and lessons from its implementation and who will agree to review it periodically to test its ongoing relevance and effectiveness.

During its preparation, that ownership rested with a small committee comprising representatives of the Trade Union organisations, the Chief Safety & Security Officer, the Chief Medical Officer, the Training Manager, and representatives of the Operations Department, the Human Resources Manager and the CIÉ Solicitor. For the purposes of its ongoing management, ownership of this policy shall be the responsibility of the Chief Safety & Security Officer. The CS&SO may decide to convene an appropriate consultative committee from time to time to provide advice.

5. Responsibilities of Senior Management

Senior Management are expected to endorse and support this policy through an understanding of its content and an application of the appropriate Railway Safety Standard.

They must provide support to their line managers to enable them to act decisively and with confidence in minimising risk to persons or property.

They must promote local campaigns to raise awareness of the risks associated with alcohol or drugs use and of the help available.

They must ensure that line managers have the skills and training necessary to recognise and manage colleagues who may be at risk, including the skills required to raise the topic in an effective but non-embarrassing or insulting manner.

They should know how to arrange medical assistance and counselling.

They must lead by example in terms of their own behaviour when on duty, on or about the railway or available on-call.

They must ensure that their line managers can make appropriate provisions for on-call availability such that colleagues may enjoy a realistic and predictable level of social activity.

They must ensure that contingencies are in place so that the requirements of this drugs and alcohol policy are not compromised by staff having to report at short notice.

They should ensure, wherever possible, that colleagues who have, upon identification of a problem, progressed through a recognised rehabilitation process be facilitated in a manner that is compatible with their career aspirations whilst ensuring that risk is not thereby introduced into our operations.

They must ensure that an open and non-discriminatory environment is created, encouraging a culture of voluntary disclosure, including that of medically prescribed, or over the counter, drugs.

6. Responsibilities of Line Management

They must ensure that staff, contractors and sub-contractors and anyone else under their control, are suitably advised and reminded of the content of this policy and of legislation, standards and other documents pertaining to the subject.

They must prevent any individual under the influence of alcohol or drugs from commencing, or remaining on, duty.

They must implement drug or alcohol testing as determined in the mandated standards.



They must respect the right of every individual to be treated with dignity and confidentiality, regardless of their immediate symptoms or any observations of their colleagues.

They must co-operate in the conduct of any random testing at locations, or of persons, under their control.

They must ensure the continued monitoring of colleagues who have returned to work after rehabilitation, in accordance with appropriate standards.

7. Responsibilities of Human Resources Management

Human Resources Managers will be responsible for ensuring that all new employees are made aware of this policy during induction and that all existing employees are informed of the requirements of this policy.

They will provide training to line managers in the relevant areas associated with drugs and alcohol use so that line managers are sufficiently capable of implementing this policy in a fair and balanced way throughout the organisation.

They will arrange sufficient support services (counselling, employee welfare programmes etc.) and have systems in place so that an employee who may be at risk through the use of alcohol or drugs can receive the necessary advice and assistance at the earliest opportunity.

They will also have arrangements in place so that an individual who may be at risk through the use of alcohol or drugs will be managed in such a way that our colleagues, the public or Iarnród Éireann as an organisation is not at risk through the actions of this individual.

8. Responsibilities of employees

All employees will be required to attend induction, and any periodic refresher training regarding drugs and alcohol awareness. They must cooperate with company initiatives providing information. Employees must not report for duty under the influence of, nor consume when on duty, alcohol or performance impairing drugs. Employees using prescribed, or over the counter, drugs must inform themselves regarding the safety of taking such medication. They must determine any effects of drugs by enquiry of their doctor or chemist, and provide this information to their supervisor before commencing duty.

Every Iarnród Éireann staff member should advise their manager/supervisor and refer themselves to the Chief Medical Officer if they believe they may have a problem. We must all provide support to colleagues who may

need that support, including the realisation that, in the interests of everyone's safety and welfare, it may be necessary to express concerns regarding a colleague to line management.



We must all be guided by mandated time scales regarding elapsed time after the consumption of alcohol and ensure we are fit for duty. We must all respond honestly to out of rostered hours requests to report for duty, or provide assistance or decisions by telephone, if alcohol or drugs have been consumed.

Every staff member must respect their colleagues' right to their leisure time and not exert inappropriate pressure on off-duty staff to provide services.

9. Responsibilities of testing providers

Iarnród Éireann will require the services of organisations with the necessary skills and knowledge to provide drug and alcohol testing as set out in legislation and supported by the relevant Railway Safety Standard.

The organisations supplying these services to Iarnród Éireann will be responsible for ensuring that persons supplied to carry out testing are suitably qualified to carry out this testing and are aware of their responsibilities regarding the welfare of the person being tested, the requirement of legislation regarding procedures for testing and the protocols to be adhered to.

10. Circumstances in which testing is carried out

As part of our normal selection process, all persons applying for employment within Iarnród Éireann will be subject to testing for drugs. Existing employees transferring into a safety critical post will be subject to testing for drugs.

Following a safety-critical incident (whether an accident or other incident), where there are reasonable grounds to suspect that the actions or omissions of a person were pertinent to the incident, then that person must be subject to evidential drugs and alcohol testing.

Where there is reason to suspect that a person is unfit to perform normal duties through the effects of alcohol or drugs then that person must be removed from duty and arrangements put in place for drugs and alcohol testing of the person concerned.

Randomly, The Company will aspire to test 5% of it's employees on an annual basis to satisfy the requirements of The Railway Safety Act.

11. Review dates

This policy will be reviewed by 31st January 2013.

12. How to manage the ill effects of medically required drugs

An employee who consults a doctor or pharmacist and is advised that medication is required must advise the doctor/pharmacist of the nature of their work so that appropriate information about any possible side effects can be given which must in turn be passed on to a supervisor or manager before taking up duty.

A supervisor or manager must be advised of any medical limitations brought about as a result either of a medical condition or the medication for treating that condition.

If an employee is in any doubt about their fitness to carry out their duties while on medication, they must consult their Supervisor or Manager who will obtain advice from the CIÉ Medical Department.

13. Voluntary disclosure

Senior Managers must ensure that they have arrangements in place when an individual voluntarily discloses a concern surrounding alcohol or drug consumption such that the employee receives the necessary range of support measures available to help with the issue.

Where there are safety implications, the individual will, after consultation with the CIÉ Medical Department, be temporarily re-assigned to appropriate duties, bearing in mind the nature of the problem.

The employee will be facilitated with time off work to attend treatment and counselling and will be allowed to return to work when their Manager, in conjunction with the Iarnród Éireann Medical Dept. has agreed that the employee is in a position to take up duty. Prior to taking up duties, the employee must agree to whatever arrangements are deemed necessary by their Manager (in conjunction with the Medical Dept.) for their continued employment.

These may include duties different from those originally carried out, Provision for time off for any ongoing treatment or counselling will also be arranged at this stage.

If an employee, having voluntarily disclosed an alcohol or drug dependency problem, fails to undertake, or does not complete, a prescribed course of treatment, that individual will be liable to be moved to a non-safety critical position, suspension or dismissal. This will also apply if the employee is found to be unfit for duty as a result of the use of alcohol or drugs.



An employee who, in the interval between notification of requirement to attend for alcohol or drugs screening and the outcome of the test, or between the time of occurrence of an incident and the outcome of the post-incident drugs and alcohol test, discloses that they have an alcohol or drugs related problem will not be viewed as voluntarily disclosing the problem if the test result is subsequently found to be positive.

14. Managing behaviour that warrants disciplinary action

As part of Iarnród Éireann's safety management system, it must be recognised that the organisation has to have a mechanism for dealing with breaches of this drugs and alcohol policy, principally the disciplinary system.

If an individual is found to be in breach of this policy or any consequential Standards, then there are a range of sanctions which may be imposed by Iarnród Éireann, up to and including dismissal. While rehabilitation of the employee is a primary concern of the organisation, we all have a duty of care to each other and to the public to reduce the potential risk caused by

the presence of alcohol or drugs in the railways operating environment.

Behaviour that may warrant disciplinary action includes being unfit on duty through the use of alcohol or drugs, consuming alcohol or drugs while on duty or being in possession of alcohol or drugs whilst on duty.

Other behaviours that will warrant disciplinary actions include refusing to participate in a drugs or alcohol test, failing a drugs or alcohol test or refusing to participate in a rehabilitation programme.

Whilst it is not the desire of this organisation to adopt a disciplinarian stance on this issue, it must be recognised by us all that we have a moral and legal responsibility to ensure the safety of our colleagues, the public and the organisation as a whole, and therefore the use of disciplinary sanctions are necessary to manage breaches of this policy.

Where disciplinary action is being taken against an individual it will be in accordance with the established Company disciplinary procedures.

15. How to manage the carrying out of random unannounced testing

A random unannounced test involves the provision of a urine sample and an alcohol breath test. Testing for alcohol or drugs in accordance with this policy will only be carried out by suitably qualified persons authorised to perform this task by the Chief Medical Officer. The testing must follow recognised evidential chain-of-custody procedures, including the division of a urine sample into two containers which are then labelled and sealed in the presence of the employee. One urine sample will then be forwarded to a laboratory for analysis by competent staff. The employee being tested will have the right to have the other urine sample independently analysed (at the employees own expense) by a recognised laboratory.

Persons selected to attend for an drugs and alcohol test as part of the random screening programme will normally be expected to return to work whilst waiting for the results of a test.

The results of an alcohol breath test will be immediate.

16. How to manage test results



Where testing produces a positive result, the employee will be removed from safety critical duties and, based on the particular circumstances surrounding the positive result, will be subject to disciplinary procedures, referred for a course of medical treatment/counselling or some other course of action deemed most appropriate given the circumstances of the particular case. This will be decided by the employee's manager in conjunction with the Chief Medical Officer, taking into account the need for safety in the work place along with the welfare of the individual concerned.

17. How to manage drugs & alcohol issues with contractors, their staff and subcontractors

Senior Managers responsible for procuring the services of contractors must ensure that the contractors, and any subcontractors, are fully aware of this drugs and alcohol policy and must ensure that contractors have systems in place so that they are aware of, and abide by this policy.

18. How to manage the appeals process

Nothing in this policy diminishes the right of an employee to an appeal under due process in accordance with existing procedures, but where there is an appeal against a disciplinary sanction for an alleged breach of this policy, the employee must understand that safety critical duties cannot be performed whilst awaiting the outcome of the appeal.

19. Monitoring the policy

A Monitoring Committee, of similar constituency to that described in section 4 above, will review this policy throughout the first 12 months of its implementation and thereafter as deemed appropriate.

The purpose of this review will be to ensure that the policy is being implemented fairly across the organisation, is meeting all of Iarnród

Éireann's duties under Railway and Health and Safety legislation and to decide if the policy or related procedures need to be altered to take account of some unforeseen dimension or event.

20. How to maintain records of testing

Iarnród Éireann will make every effort to ensure that the right to privacy of any individual is not breached while still allowing the organisation to fulfil its requirements under this policy and as required by legislation.

Detailed records of testing showing levels of alcohol/drugs present in samples will be maintained by the Medical Department.

Individual files held in Personnel Offices will have a record of dates of tests, the reason for the test (random or otherwise). Records of test results will be held separately in a secure system.

Records relating to drugs or alcohol tests will be strictly controlled and will only be released to an authorised person where there is strong justification.

21. How to manage subsequent employment applications by candidates with a test failure history

Persons who have applied to Iarnród Éireann for employment but who failed the pre-employment drugs and alcohol screening tests will have their test results retained on file indefinitely.

Anyone who fails a pre-employment drugs and alcohol screening test will not normally be considered for employment for a minimum of three years.



Drugs and Alcohol Policy

QUESTIONS & ANSWERS

(where appropriate, references to alcohol are applicable to drugs)

1. How do I know how much I can drink?

Always adhere to safe drinking guidelines. However, you should always consider when you have to be on duty next, and the duration of time required for the alcohol you have consumed to be cleared from your body.

2. How do I know if I am unfit to work?

You are considered unfit for work if you have more than the official limit of alcohol in your blood (or equivalent in your urine or breath). The physical signs and symptoms vary from person to person.

3. What is the official limit?

THE LIMIT FOR ALCOHOL IS DETERMINED BY THE RELEVANT/CURRENT RAILWAY SAFETY LEGISLATION. The use of any illegal or performance impairing drugs is not acceptable.

4. How do I know if I am over the limit?

Alcohol leaves the body at a rate of 1 unit per hour therefore you cannot be certain about when you reach the limit. You have to make a judgement based on the amount you have drunk and the time since you last had a drink. You may be completely unaware of the effects of drugs on your ability to work in a safe and satisfactory manner.

5. How do I know when to stop drinking?

As a guide, you should not drink alcohol for 8 hours before coming on duty. However, if you have been drinking more than 8 units (e.g. 2 or 3 pints), you should allow longer for the alcohol to leave your body.

6. How do I know how many units I have drunk?

The general guidance is that 1 unit is the equivalent of a half-pint of average strength beer, lager or cider, a small glass (125 ml) of wine or a single pub measure of spirits. Average strength for beer means 3.5% - 4% alcohol. However, many beers, lagers and ciders are considerably stronger than that and therefore a pint may be up to 3 units. See page 11 for further information on how to work out the number of units your consuming.

7. How do I know how strong a drink is?

Most bottled or canned drinks state the alcohol content by volume on the label. In many pubs, the alcohol content is shown on the label on the beer tap. See page 10 for further information on how to work out the number of units your consuming.

8. Is drinking at home different from drinking in a pub or club?

Beers, lagers and ciders drunk at home from bottles or cans are often stronger than those drunk in a pub. Also, people often drink bigger measures of spirits at home than in a pub. It is therefore more difficult to keep track of the number of units that have been drunk at home.

9. How can I get fit for work more quickly after drinking?

There is no way of speeding up the process of alcohol leaving the bloodstream. It just takes time. The average rate is 1 unit per hour, but this can vary from person to person.

10. What do I do if I am called in an emergency shortly after I have been drinking?

If you have any doubt that you may be over the limit, you should decline to attend. You should remember that you may be liable to testing at the scene of an incident/accident.

11. Can I drink alcohol in the office after work?

Alcohol may only be drunk in the work place outside normal working hours, on specific occasions and with the permission of a senior manager for that event.

12. When might I be tested?

You are likely to be tested for drugs and alcohol if you were involved in an accident or incident, even if you consider that you were not at fault. You are also likely to be tested if you report for duty showing evident signs of having consumed alcohol or drugs (such as smelling of alcohol, uneven gait, slurred speech).

Furthermore, you may be required to undergo a random drugs test in accordance with the policy (5% of employees are tested every year)

If you are transferred to a safety-critical post, you will be required to undergo a drugs test.

If you are carrying out, or reporting to work for the purposes of carrying out safety critical duties, you may be required to undergo a random unannounced drugs and alcohol test in accordance with the Railway Safety Act.

13. What Happens If A Safety Critical Role Holder Fails A Test?

In circumstances where a Safety Critical Role Holder fails a test, that individual is removed from the Safety Critical Role in question and Iarnród Éireann's established Grievance & Disciplinary Policy is applied. It should be remembered, however, that every such case has the potential to be different, so the outcome of the disciplinary process will depend on the findings of the test and its overall circumstances. That is to say, such issues must be dealt with on a case by case basis, as opposed to the application of a mandatory approach.

Accordingly, outcomes may range from referral for counselling or treatment to dismissal.

14. What Happens If A Safety Critical Role Holder Refuses To Take A Test?

Refusal on the part of a Safety Critical Role Holder to take a test when required will have the same consequences as failing a test, and ultimately the same consequences apply.

In circumstances where an individual refuses to take a test, it is essential that the Line Manager/Supervisor in question engages with that individual, clearly outlining the legal imperative for participation in the test, and providing as much information as possible concerning the overall context for random unannounced drugs and alcohol testing.

In other words, the opportunity for the individual in question to consider fully their decision and its consequences, should be afforded.

In circumstances where the individual reiterates their refusal, that individual is removed from their Safety Critical Role and Iarnród Éireann's established Grievance & Disciplinary Policy is applied.

15. What does a Random Unannounced Test Involve?

Random unannounced tests will test for the presence of both alcohol and drugs, and as such will involve a breath test along with the provision of a urine sample.

Work places selected for this testing will be chosen at random, as will the number of candidates to be tested at that location, or from that work group. This testing will be conducted using the same procedures that are currently applied in the case of post-incident testing.

16. How do I know if I have been selected for a random test?

If you are working, or reporting for work, at a location selected for random unannounced drugs and alcohol testing, you will be advised by the authorised person conducting the sampling at the time that the sample is to be collected.

17. How will the standard testing process unfold?

In the vast majority of cases, the test will proceed in line with the established process.

In such cases, the breathalyser test will be negative/clear. The individual will then return to work while the urine sample is sent to the laboratory for testing. The urine sample will be divided in to 2 sample bottles in the individual's presence, and each will be labelled with the same bar code and sealed while they are still present. Both samples are then sent to a testing laboratory where one is tested. If the test is positive at this point, an individual has the right to ask for the other sample to be tested. People can also make arrangements for this second test to be carried out at a laboratory of their choice.

18. How do I assure people that the testing process is carried out properly?

All testing will be carried out by suppliers approved by the Chief Medical Officer in accordance with the European Standards. When a person provides a urine sample, it will be divided in to 2 sample bottles in their presence, and each will be labelled with the same bar code and sealed while they are present. Both samples are then sent to a testing laboratory where one is tested. If the test is positive, an individual has the right to ask for the other sample to be tested. People can also make arrangements for this second test to be carried out at a laboratory of their choice.

19. Might I be tested by a Garda as well as by Iarnród Éireann?

Normally testing will be required by and arranged by Iarnród Éireann, but there may be occasions when the Gardai require to carry out tests on individuals.

20. What medication can I take and still be fit for duty?

You must ask your doctor or pharmacist the nature of the medication you are required to take and any possible effects it may have on your ability to work in a safe and satisfactory manner and inform your supervisor the next time you take up duty. If you are selected for an alcohol or drugs test, you must tell the person carrying out the test what medication you are, or have recently been, taking, as this will be taken into account by the testing laboratory.

21. If I have been at a party and inhaled marijuana smoke “passively” from other people smoking it, would I fail a drugs test?

The test levels are set such that passive inhalation would not trigger a fail result. Nevertheless if you are aware of being in such situation, you should declare it before the sample is taken.

22. My friend has a bad relationship with his supervisor. Can the supervisor “arrange” for my friend to be tested?

Supervisors are responsible for ensuring that staff under their control are fit for duty. They can therefore arrange for an individual to be tested if they have reasonable cause to believe that they are under the influence of alcohol or drugs. Iarnród Éireann have provided training to support supervisors in this regard. The selection process for random testing will be objectively applied through random number selection.

23. What happens if I confide in my manager that I have a problem with drink or drugs?

Your manager will advise in the strictest confidence, the relevant HR Manager and the Chief Medical Officer.

24. What do I do if someone tells me in confidence that he thinks that he has a problem with drink or drugs?

If you are not the individual's manager, you should encourage them to go to their manager and or seek Chief Medical Officer help.

25. What do I do if I think a work colleague or somebody protecting my work is under the influence of drugs or alcohol?

You should advise their manager immediately. If they are undertaking safety-critical work, you should encourage them to stop work until they have been seen by their manager. If their actions or decisions could be an immediate cause of danger, you should take appropriate steps e.g. warning the controlling signalman for the area, moving clear of the line etc.

26. What do I do if someone tells me that he thinks a work colleague or person providing protection is unfit for duty?

You should ask what gave rise to the concern and then see the individual concerned as soon as possible. You then have to judge whether the individual is showing any signs that indicate that he may be under the influence of alcohol or drugs. If so, then you should ask them to cease work and you should advise a manager who can determine the necessary action.

27. What is my role as the Line Manager/Supervisor during the random unannounced testing/sampling process?

When the Authorised Tester/Collection Officer presents at a work location for the purpose of carrying out a random unannounced drugs & alcohol test, their first action will be to contact you directly. The Collection Officer will set the scene for their visit, and explain what assistance they may require.

(As a Line Manager/Supervisor, your contact details have been supplied to the authorised testing body, and you have been registered as a 'Site Contact').

You will be called upon to:

- » Ensure that the Authorised Tester/Collection Officer complies with Iarnród Éireann's Health & Safety standards (Refrains from walking on the track, wears high visibility vest where appropriate etc.)
- » To facilitate the testing process, bringing the Authorised Tester/Collection Officer to a suitable location ;{A Private Room/Office adjacent to a Serviceable Restroom Facility}; and treating the duration of the process as a priority issue.
- » Ensure that the privacy required for the sampling/collection process is maintained.

The Authorised Tester/Collection Officer may call upon you for further assistance/reference if secondary issues arise during the process, such as:

- » The candidate is unwilling to provide a sample
- » The candidate cannot provide a sample
- » The candidate behaves in an obstructive fashion

In addition you will be required to:

- » Witness the calibration of the breathalyser which will be used during the test
- » Verify/confirm the identity of the individual being tested
- » Witness the signing of the sample jars
- » Sign off on paperwork once the process has been completed (counter-signing)
- » Be available if anyone contests the collection process



7109-24 Division 17 Rural/Urban Fencing

- **Volume A – Works Requirements documents to include;**

Ref.	
1.1	Doc 1.1 IE Palisade Fencing Scope Division 17
1.2	Doc 1.2 IE Contractors Permit to Access
1.3	Doc 1.5 IE Certification of Road Rail Vehicles
1.4	Doc 1.6 IE Environmental Management System
1.5	Doc 1.7 IE Fencing Specification
1.6	Doc 1.8 IE Instructions on use of site and railway safety
1.7	Doc 1.9 IE Code of Conduct for Suppliers
1.8	Doc 1.10 IE Drugs and Alcohol Policy

- **Volume B – Form of Tender & Schedule**
- **Volume C - Pricing Document**
- **Volume D – Conditions of Contract**
- **Instructions to Tenders**
- **Model Forms**

Preamble to the Bill of Quantities

This Pricing Document has been prepared in accordance with the Civil Engineering Standard Method of Measurement (CESMM3) 3rd edition 1991, except where otherwise noted. Those documents and all items are to be read subject to the drawings, specification and all the contract terms.

1 General Directions

In this Pricing Document the sub headings and item descriptions identify the work covered by the respective items, but the exact nature and extent of the work to be performed is to be ascertained by reference to the Drawings, Specification and Conditions of Contract as the case may be read in conjunction with the matters listed against the relevant marginal headings Class A-Z of the Civil Engineering Standard Method of Measurement 3rd edition, published by the Institution of Civil Engineers in 1991.

The rates and prices entered in this Pricing Document shall be deemed to be the full inclusive value of the work covered by several items including the following, unless expressly stated otherwise: -

- i Labour and costs in connection herewith.
- ii The supply of materials, goods, storage and costs in connection herewith including waste and delivery to site.
- iii Plant and costs in connection herewith.
- iv Fixing, erecting and installing or placing of materials and goods in position.
- v Temporary works.
- vi The effect of the phasing of the works of alterations or additions to existing services and mains to the extent that such work is set forth or reasonably implied in this document on which the tender is based.
- vii General obligations. Liabilities and risks involved in the execution of the works set forth or reasonably implied in the documents on which the Tender is based.
- viii Establishment charges, overheads and profit.

In accordance with CESMM3 the tenderer may insert in the Pricing Document such items for method related charges as he may consider to cover items of work relating to his intended method of executing the works, the cost of which are not considered as proportional to the quantities of the other items and for which he has not allowed in the rates and prices for the other items. The method related charges shall allow for compliance with Iarnród Éireann safety requirements.

Items have been inserted to cover costs such as site offices, canteen, supervision, etc. The tenderer must price these as a minimum. Other items can be inserted in the space provided at the tenderers discretion.

2 Measurement

The measurement of work shall be computed in net from the drawings unless otherwise stated in the Method of Measurement. The Contractor shall allow in rates and prices for waste.

3 Pricing of Items

Each individual item shall have a realistic rate or price entered against it. Rates and prices shall be expressed to two decimal places. All units, rate, quantity and amount columns must be completed and totalled across.

4 Use of Alternative Authorised Materials or Design

Where in the contract a choice of alternative materials or designs is indicated for a given purpose, the description billed and rates and prices inserted shall be deemed to cover any of the permitted alternative materials or designs which the Contractor may elect to use and all measurement of such work shall be based upon the thinnest alternative construction permitted by the Contract.



5 Privately and Publicly Owned Services


The information in the Contract as the whereabouts of existing services and mains is believed to be correct but the Contractor shall not be relieved of his obligations under the Conditions of Contract. The Contractor shall include in his rates and prices for taking of measures for the support of pipes, cables and other apparatus during the progress of the Works and for keeping the Engineer informed of all arrangements he makes with owners of privately owned services, statutory Undertakers and Public Authorities as appropriate and for ensuring that no existing mains and services are interrupted without the written consent of the appropriate authority.

6	<p>COVID-19</p> <p>Contractors will be required to ensure that the "Works" as designed and set out in the Works Requirements are constructed in strict compliance with the Health and Safety at Work Regulations and subject to HSE guidance in respect of COVID-19. The PSCS must ensure procedures on site adhere to HSE and Irish Government Guidance relating to COVID-19. Contractors will need to ensure full compliance at all times with all public health measures currently in place for all work persons both on and off site. Tenderers must provide supporting detail in their tender response of their policies and proposed procedures and safeguards to ensure that these works can be safely and successfully completed without compromising any of the key health and safety and public health measures. All additional costs associated with implementing COVID-19 procedures are deemed to be included for in the Preliminaries OR in the submitted rates for the individual work items.</p>
7	<p><u>Value Added Tax</u></p> <p>The rates and prices entered in the Pricing Document shall not include Values Added Tax.</p>
8	<p><u>Instruction to Tenderers</u></p> <p>The Instructions to Tenderers in the accompanying document shall be carefully noted by intending Tenderers prior to completion of the Pricing Document. Failure to comply with the instructions may lead to invalidation of the tender.</p>
9	<p><u>Reinforcement</u></p> <p>The cost of chairs, spacer bars or any other form of support necessary to maintain the reinforcement on position is not measured and should be included in the rates for reinforcement.</p>

			Sub-Total €	TOTAL €
GRAND SUMMARY				
Class A:	General Items	Page 1 - Brought Forward	████████	
		Page 2 - Brought Forward	████████	████████
	<u>Fencing</u>			
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
████████	██	████████████████████		████████
Location 7	176mls 600yds - 176mls 1200yds UP	Page 11 - Brought Forward		€57,300.00
████████	████████████████████	████████████████████		████████
████████	████████████████████	████████████████████		████████
TOTAL (Excl. VAT) - carried to Form of Tender				████████

Item	Item Description	Unit	Quantity	Rate	Amount
<u>CLASS A: GENERAL ITEMS</u>					
<u>Contractual Requirements</u>					
A120.1	Insurance of the Works as per Contract	Sum	1		██████████
A120.2	Employers Insurance as per Contract	Sum	1		€
A120.3	Public liability insurance as per Contract	Sum	1		€
A130	Third Party Insurance	Sum	1		€
A140	Contractor to undertake the role of PSCS for works.	Sum	1		██████████
<u>Specific Requirements</u>					
A249	Setting-out Engineer required for interpretation of topographical survey, linking into survey via the permanent setting out points.	Sum	1		€
A271	Set up and implement traffic management plans, including all necessary signage, at required sites	Sum	1		€
A280	Attendance of all the Contractors Personnel at a site induction	Sum	1		€
<u>Method-Related Charges</u>					
A311.1	Establishment & removal of site offices (fixed)	Sum	1		€
A311.2	Maintenance of offices for the duration of the works (time-related)	Sum	1		€
A314	Establishment & removal of stores and materials compounds (fixed)	Sum	1		€
A315.1	Establishment & removal of canteen/messroom (fixed)	Sum	1		€
A315.2	Operate and maintain canteen and messroom for the duration of the construction (time-related)	Sum	1		€
A333.1	Delivery & removal of plant (fixed)	Sum	1		€
A333.2	Operate and maintain plant for the duration of the works (time-related)	Sum	1		€
A321.1	Set up electricity supply and standby generator (fixed)	Sum	1		€
A321.2	Temporary lighting for site	Sum	1		€
A322	Water supply for the duration of the construction (time-related)	Sum	1		€
A327.1	Welfare facilities complying with HSE regulations for the duration of the construction (time-related)	Sum	1		€

Item	Item Description	Unit	Quantity	Rate	Amount
A327.2	Complying with COVID-19 regulations (see Preamble Item 6)	Sum	1		€
Total Page 1 - Carried Forward to Grand Summary					
A371.1	<u>Method-Related Charges – Supervision and Labour</u> Mobilisation and demobilisation from the sites (fixed)	Sum	1		
A371.2	Management and supervision of the contract (time-related)	Sum	1		€
A371.3	Programming and scheduling of the works (time-related)	Sum	1		€
A372.1	Administration of the contract (time-related)	Sum	1		€
A390	Preparation of all Method Statements for approval by the Engineer (fixed)	Sum	1		€
A273.1	Maintenance of access roads and reinstatement of damaged land belonging to IÉ & any third party	Sum	1		€
	<u>Method-Related Charges–section to be filled by Main Contractor to suit specific needs; Main Contractor to note this is not an exhaustive list</u>				

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 2 - Carried Forward to Grand Summary					

Div17 Fencing Bills of Quantities				€

Total Page 3 - Carried Forward to Grand Summary				██████████
Div17 Fencing Bills of Quantities				€
██████████	██████████			
██████████	██████████			
██████████	██████████	█	█	
██████████	██████████	█	█	
██████████	██████████			
██████████	██████████	█	█	██████████
██████████	██████████			
██████████	██████████	█	█	██████████
██████████	██████████			

Total Page 4 - Carried Forward to Grand Summary					██████████
Div17 Fencing Bills of Quantities					€
██████████	██████████				
██████████	██████████				
██████████	██████████	█	█		██████████
██████████	██████████		█		
██████████	██████████	█	█		
██████████	██████████				
██████████	██████████				
██████████	██████████	█	█	█	██████████
██████████	██████████				
██████████	██████████				

Total Page 5 - Carried Forward to Grand Summary				
Div17 Fencing Bills of Quantities				€
<u>LOCATION 4: 170m1s 1000yds - 170m1s</u>				
[REDACTED]				
[REDACTED]				
[REDACTED]	■	■		
[REDACTED]	■	■		
[REDACTED]				
[REDACTED]				
[REDACTED]	■	■	[REDACTED]	[REDACTED]
[REDACTED]				

Total Page 7 - Carried Forward to Grand Summary					██████████
Div17 Fencing Bills of Quantities					€
	██████████				
	██████████				
	██████████	█	█		██████████
	██████████		█		
	██████████	█	█		
	██████████				
	██████████	█	█	█	██████████
	██████████				

Total Page 9 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€

Total Page 10 - Carried Forward to Grand Summary					
Div17 Fencing Bills of Quantities					€
<u>LOCATION 7: 176mls 600yds - 176mls 1200yds UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D10 0	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		
D52 1	Removal of existing fence	m	540		
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X154	Palisade black general purpose fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	540	93.00	

Total Page 11 - Carried Forward to Grand Summary					█
Div17 Fencing Bills of Quantities					€
	█				
	█				
	█	█	█		█
	█				
	█	█	█		█
	█				
	█				
	█	█	█	█	█
	█				

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Page 12 - Carried Forward to Grand Summary				[REDACTED]
Div17 Fencing Bills of Quantities				€
[REDACTED]	-			
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]		
[REDACTED]	-			
[REDACTED]	[REDACTED]			

[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
Total Page 13 - Carried Forward to Grand Summary				[Redacted]

Cobh





Preamble to the Bill of Quantities

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	<p>6 COVID-19 Contractors will be required to ensure that the "Works" as designed and set out in the Works Requirements are constructed in strict compliance with the Health and Safety at Work Regulations and subject to HSE guidance in respect of COVID-19. The PSCS must ensure procedures on site adhere to HSE and Irish Government Guidance relating to COVID-19. Contractors will need to ensure full compliance at all times with all public health measures currently in place for all work persons both on and off site. Tenderers must provide supporting detail in their tender response of their policies and proposed procedures and safeguards to ensure that these works can be safely and successfully completed without compromising any of the key health and safety and public health measures. All additional costs associated with implementing COVID-19 procedures are deemed to be included for in the Preliminaries OR in the submitted rates for the individual work items.</p> <p>7 <u>Value Added Tax</u> The rates and prices entered in the Pricing Document shall not include Values Added Tax.</p> <p>8 <u>Instruction to Tenderers</u> The Instructions to Tenderers in the accompanying document shall be carefully noted by intending Tenderers prior to completion of the Pricing Document. Failure to comply with the instructions may lead to invalidation of the tender.</p> <p>9 <u>Reinforcement</u> The cost of chairs, spacer bars or any other form of support necessary to maintain the reinforcement on position is not measured and should be included in the rates for reinforcement.</p>
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			Sub-Total €	TOTAL €
GRAND SUMMARY				
Class A:	General Items	Page 1 - Brought Forward	€	
		Page 2 - Brought Forward	€	€
<u>Fencing</u>				
Location 1	158mls 880yds - 158mls 950yds UP	Page 3 - Brought Forward		€
Location 2	161mls 380yds - 161mls 600yds UP	Page 4 - Brought Forward		€
Location 3	163mls 100yds - 163mls 950yds DN	Page 5 - Brought Forward		€
Location 4	170mls 1000yds - 170mls 1140yds DN	Page 6 - Brought Forward		€
Location 5	173mls 880yds - 173mls 900yds UP	Page 7 - Brought Forward		€
Location 6A	174mls 1550yds - 174mls 1700yds UP	Page 8 - Brought Forward		€
Location 6B	175mls 200yds - 175mls 600yds UP/DN	Page 9 - Brought Forward		€
Location 6C	175mls 200yds - 175mls 600yds DN	Page 10 - Brought Forward		€
Location 7	176mls 600yds - 176mls 1200yds UP	Page 11 - Brought Forward		€
TOTAL (Excl. VAT) - carried to Form of Tender				€

Item	Item Description	Unit	Quantity	Rate	Amount
<u>CLASS A: GENERAL ITEMS</u>					
<u>Contractual Requirements</u>					
A120.1	Insurance of the Works as per Contract	Sum	1		€
A120.2	Employers Insurance as per Contract	Sum	1		€
A120.3	Public liability insurance as per Contract	Sum	1		€
A130	Third Party Insurance	Sum	1		€
A140	Contractor to undertake the role of PSCS for works.	Sum	1		€
<u>Specific Requirements</u>					
A249	Setting-out Engineer required for interpretation of topographical survey, linking into survey via the permanent setting out points.	Sum	1		€
A271	Set up and implement traffic management plans, including all necessary signage, at required sites	Sum	1		€
A280	Attendance of all the Contractors Personnel at a site induction	Sum	1		€
<u>Method-Related Charges</u>					
A311.1	Establishment & removal of site offices (fixed)	Sum	1		€
A311.2	Maintenance of offices for the duration of the works (time-related)	Sum	1		€
A314	Establishment & removal of stores and materials compounds (fixed)	Sum	1		€
A315.1	Establishment & removal of canteen/messroom (fixed)	Sum	1		€
A315.2	Operate and maintain canteen and messroom for the duration of the construction (time-related)	Sum	1		€
A333.1	Delivery & removal of plant (fixed)	Sum	1		€
A333.2	Operate and maintain plant for the duration of the works (time-related)	Sum	1		€
A321.1	Set up electricity supply and standby generator (fixed)	Sum	1		€
A321.2	Temporary lighting for site	Sum	1		€
A322	Water supply for the duration of the construction (time-related)	Sum	1		€
A327.1	Welfare facilities complying with HSE regulations for the duration of the construction (time-related)	Sum	1		€
A327.2	Complying with COVID-19 regulations (see Preamble Item 6)	Sum	1		€

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 1 - Carried Forward to Grand Summary					€
A371.1	<u>Method-Related Charges – Supervision and Labour</u> Mobilisation and demobilisation from the sites (fixed)	Sum	1		€
A371.2	Management and supervision of the contract (time-related)	Sum	1		€
A371.3	Programming and scheduling of the works (time-related)	Sum	1		€
A372.1	Administration of the contract (time-related)	Sum	1		€
A390	Preparation of all Method Statements for approval by the Engineer (fixed)	Sum	1		€
A273.1	Maintenance of access roads and reinstatement of damaged land belonging to IÉ & any third party	Sum	1		€
	<u>Method-Related Charges–section to be filled by Main Contractor to suit specific needs; Main Contractor to note this is not an exhaustive list</u>				

Item	Item Description	Unit	Quantity	Rate	Amount
Total Page 2 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
LOCATION 1: 158mls 880yds - 158mls 950yds					
UP					
CLASS D: DEMOLITION AND SITE CLEARANCE					
D100	General clearance, removal of vegetation, trees & stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	50		€
CLASS X: MISCELLANEOUS WORKS					
X1	Fences				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	50		€
Total Page 3 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
LOCATION 2: 161m 380yds - 161m 600yds UP					
CLASS D: DEMOLITION AND SITE CLEARANCE					
D100	General clearance, removal of vegetation, trees and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	200		€
CLASS X: MISCELLANEOUS WORKS					
X1	Fences				
X133	Concrete post and wire fence; height 1.5m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3	m	200		€
Total Page 4 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 3: 163mIs 100yds - 163mIs 950 yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.4		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence; including foundations	m	750		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	750		€
Total Page 5 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 4: 170mls 1000yds - 170mls</u>					
<u>1140yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	110		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X145	Palisade general purpose fence; height 1.8m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	110		€
Total Page 6 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 5: 173mIs 880yds - 173mIs 900yds</u>					
<u>UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation and tree stumps; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence; including foundations	m	80		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X142	Palisade general purpose fence; height 1.2m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	80		€
Total Page 7 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 6A: 174mls 1550yds - 174mls</u>					
<u>1700yds UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence	m	150		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good	m	150		€
Total Page 8 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 6B: 175mIs 200yds - 175mIs</u>					
<u>600yds UP & DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence; including foundations	m	260		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	260		€
Total Page 9 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 7A: 175mls 200yds - 175mls</u>					
<u>600yds DOWN</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D210	Removal of trees; including cutting timber into manageable lengths for landowner	Sum	1		€
D521	Removal of existing fence	m	170		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X155	Palisade security fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	170		€
Total Page 10 - Carried Forward to Grand Summary					€

Div17 Fencing Bills of Quantities					€
<u>LOCATION 7: 176m² 600yds - 176m²</u>					
<u>1200yds UP</u>					
<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>					
D100	General clearance, removal of vegetation; as detailed in Specification & Land Owner Fencing Agreement Forms	ha	0.1		€
D521	Removal of existing fence	m	540		€
<u>CLASS X: MISCELLANEOUS WORKS</u>					
X1	<u>Fences</u>				
X154	Palisade general purpose fence; height 2.4m; as detailed in Specification CCE-TMS-SPN-037 Version 1.3; including concrete foundations and making good ground	m	540		€
Total Page 11 - Carried Forward to Grand Summary					€

Fencing 2020 Division 17
Scope of Works

ISS 2.0

- 1.0 Fencing Specification**
- 2.0 Scope of Works: Division 17 Fencing**
- 3.0 Landowner Agreement Forms**

1.0 Fencing Specification

1.1 General

1.1.1 All works are to be carried out in strict accordance with IÉ Fencing Specification Reference Number CCE-TMS-SPN-037 Version 1.3.

2.0 Scope of Works: Division 17 Fencing

- The contractor must obtain a Permit to Access for the works in accordance with Irish Rail Safety Standard SMS-005 and adhere to this standard along with other mandatory safety legislation
- All contractors must submit a Safety Submission in accordance with SMS-005 with the tender return. The Safety Submission is to include:
 - Signed Safety Statement
 - Method Statement
 - Signed Risk Assessments
 - Record of Competent Staff
 - PPE the contractor will be making available to his/her personnel
 - Contractor Emergency Procedures
 - Work-place Clean-up procedure on completion of the works
 - Compliance Statement to comply with Contractor Safety Regulations.
 - Copy of Insurances
- Before work commences contractors must ensure that they possess a valid Permit to Access and a Purchase Order Number. A Permit to Access is obtained from Iarnród Éireann's Contractor Safety Executive once the Safety Submission has been approved.
- Tenderers to submit their Proposed Programme detailing how they will complete the works prior to the required completion date.
- Tenderers to note that no items raised at the site meeting will have any contractual status whatsoever. All queries arising from the site meeting shall be submitted in writing to Cormac Walsh Cormac.walsh@irishrail.ie and they along with the IÉ responses will be issued to all tenderers.
- Failure to attend site meeting will exclude contractors from tendering for work.
- Property Owner Liaising will be carried out by IÉ prior to works commencing – Agreement of scope will be agreed in writing prior to commencement – no alterations to same are allowable, without consultation with Landowner and IÉ Engineer in Charge. Contractor will liaise with the property owners with regard to access arrangements.
- It is the contractor's responsibility to determine if traffic management is required and if so they shall execute the works in accordance with Chapter 8 of the Traffic Signs Manual, in such cases personnel should have valid and relevant CSCS training to implement the road closure/traffic management, all costs to be included in the BoQ.
- The contractor will ensure all his/her staff are fully trained, hold at least a valid Personal Track Safety(PTS), Safe Pass and Manual Handling certification and be certified to operate any machinery he/she deem necessary as part of the works.
- Any crossing over the railway must be carried out in conjunction with the Iarnród Éireann Engineering Supervisor/Track Safety Coordinator/Lookout.
- Any access to the track by machines will be subject to approval via the Iarnród Éireann Engineering Supervisor/Track Safety Coordinator/Lookout.
- All cables in the area will be marked where required by the relevant departments and the successful contractor must exercise due care in relation to working around these cables.
- Contractor will supply all required materials to complete these works unless otherwise stated.

- Per Way Inspector Jerry Healy (087 2583367) for Division 17 must be given adequate notice before works start.
- No person is allowed to enter Irish Rail property unless the PWI for the relevant Division or the Iarnród Éireann Engineer in charge of the contract has been informed and has granted access.
- All contractors equipment stored on Iarnród Éireann property is stored at the contractors own risk.
- Before commencement of any works the PWI must be given at least 2 weeks notice
- It is the contractors responsibility to arrange protection for the works with the PWI in a timely manner
- No works can take place without the knowledge and consent from the PWI
- All mulching on live railway line is to be done at night or under T3/T2 protection as deemed necessary by the PWI
- The rates submitted should be valid for the remainder of 2020
- Subcontracting of the contract is not permitted see "Conditions of tendering for Contract for fencing Works"
- No variations to the contract fence location, fence type or quantities (as specified in Table 2.1 below) will be permitted unless the Contractor has received a written instruction from the authorised IÉ representative.
- Invoices for completed work/sections of work will not be submitted until the relevant work/sections of work have been checked and verified as being compliant with the Specification by the authorised IÉ representative

Table 2.1 Location & Meterage Table

Location No.	Location	Milage		Line	Quantity (m)	UP/DN	Type
1	Waterloo	158m 880yds	158m 950yds	D – C	50m	Up	2.4m Green Security Palisade
2	Rathpeacon	161m 380yds	161m 600yds	D – C	200m	Up	Conc P & W
3	Shaws	163m 100yds	163m 950yds	D – C	750m	Dn	2.4m Green PVC Security Palisade
4	Glounthane	170m 1000yds	170m 1140yds	C – G	110m	Dn	1.8m Palisade
5	IFI	173m 880yds	173m 900yds	G – C	80m	Up	2.4m Palisade
6a	Ballynoe	174m 1550yds	174m 1700yds	G – C	150m	Up	2.4m Green Security Palisade
6b	Ballynoe	175m 200yds	175m 600yds	G – C	260m	Up & Dn	2.4m Green Security Palisade
6c	Ballynoe	175m 200yds	175m 600yds	G – C	170m	Dn	2.4m Green Security Palisade
7	Cobh	176m 600yds	176m 1200yds	G – C	540m	Up	2.4m BLACK PVC Palisade

Notes on above

D-C – Dublin to Cork

G-M – Glounthaune to Middleton

C-G – Cork Glounthaune

G-C – Glounthaune to Cobh

Site Notes -

Site 3 – Fence along boundary where new houses are being prepped. Skip existing House on Dn Side

Site 4 – Continue on existing fence to top of Bridge

Site 7 – Cobh remove All Cobh Tidy Towns Signage and reinstall as needed following work. Temporary fencing to be placed at the end of each shift to prevent access to the track.

Division 17 - Extent of Works Area

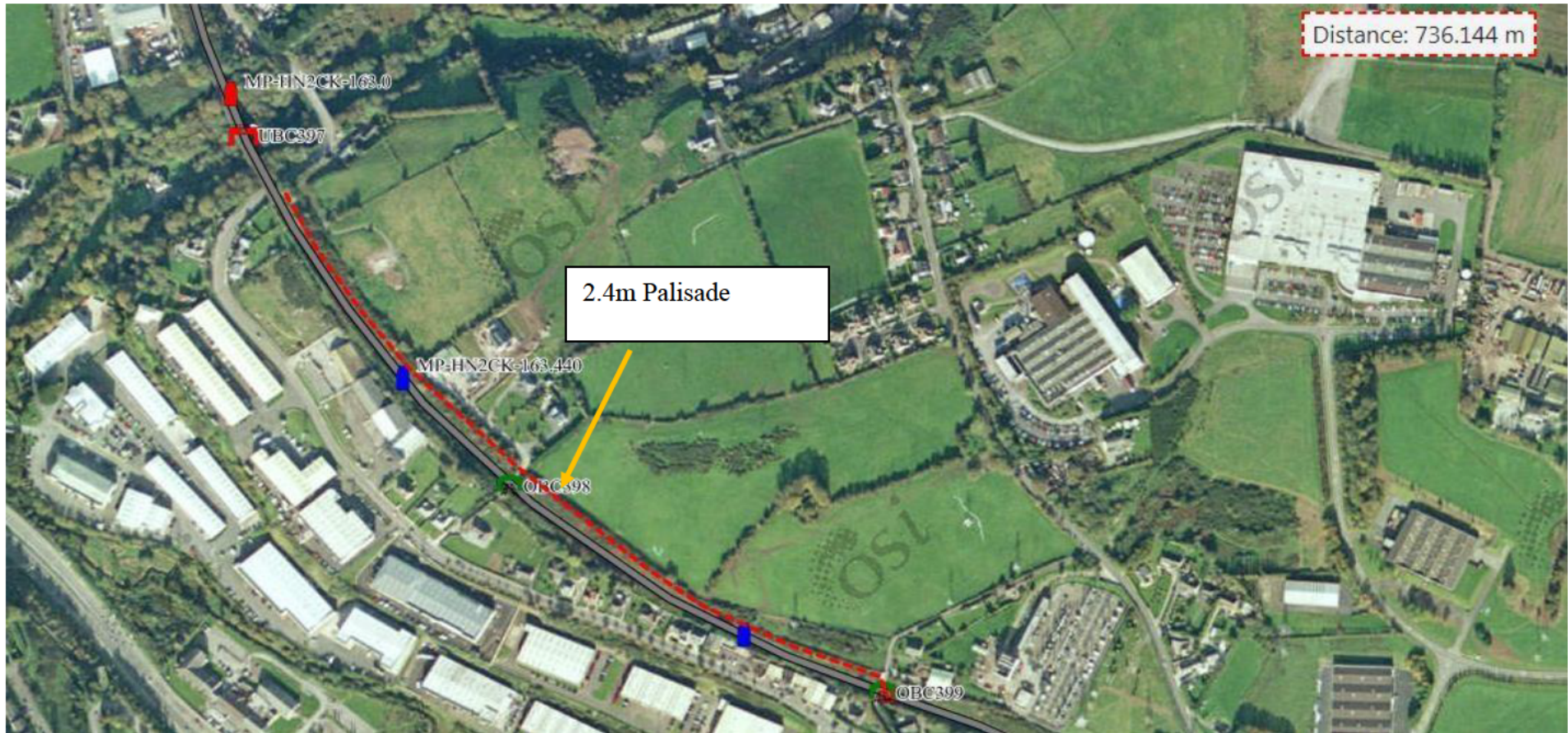
Site 1 - Waterloo



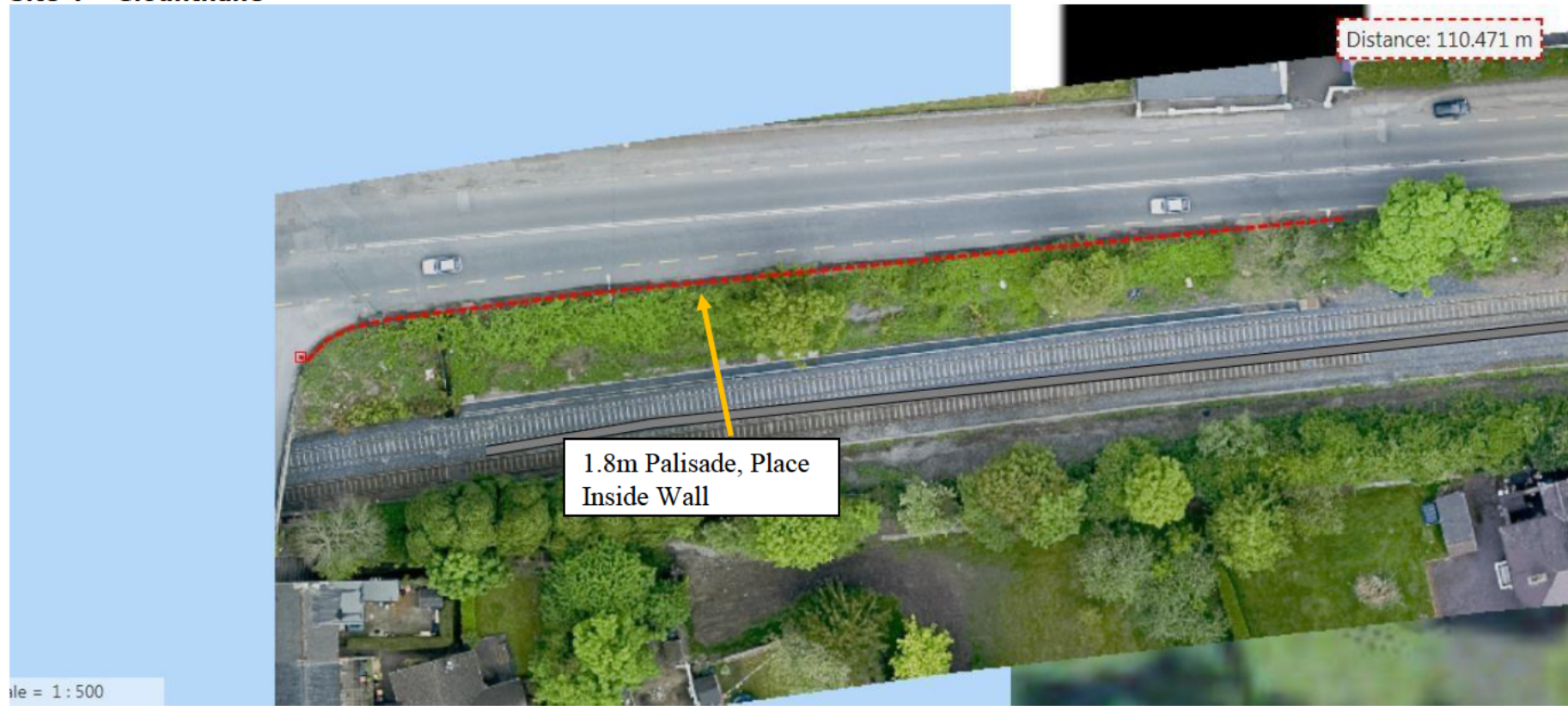
Site 2 - Rathpeacon



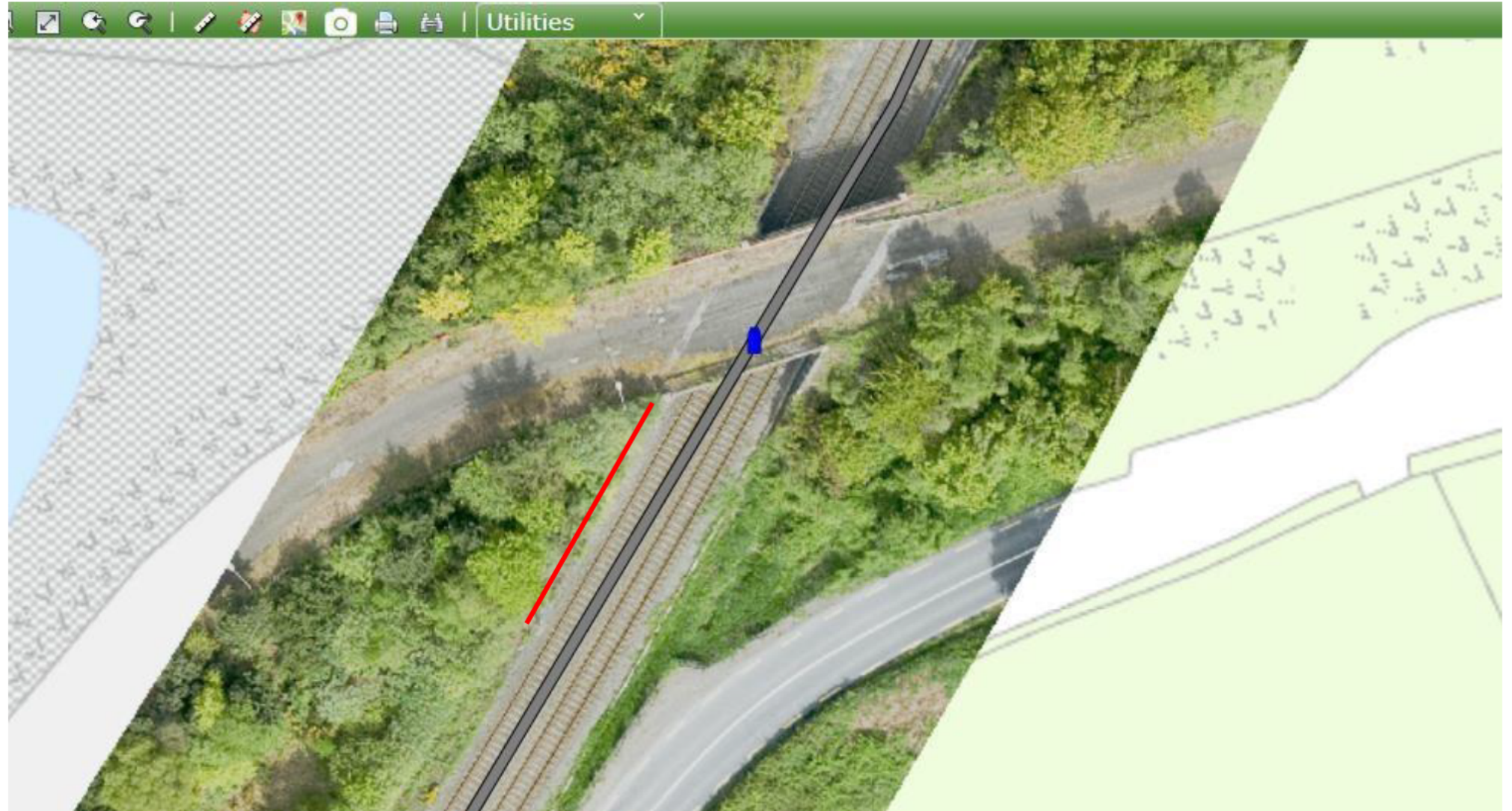
Site 3 - Shaws



Site 4 – Glounthane



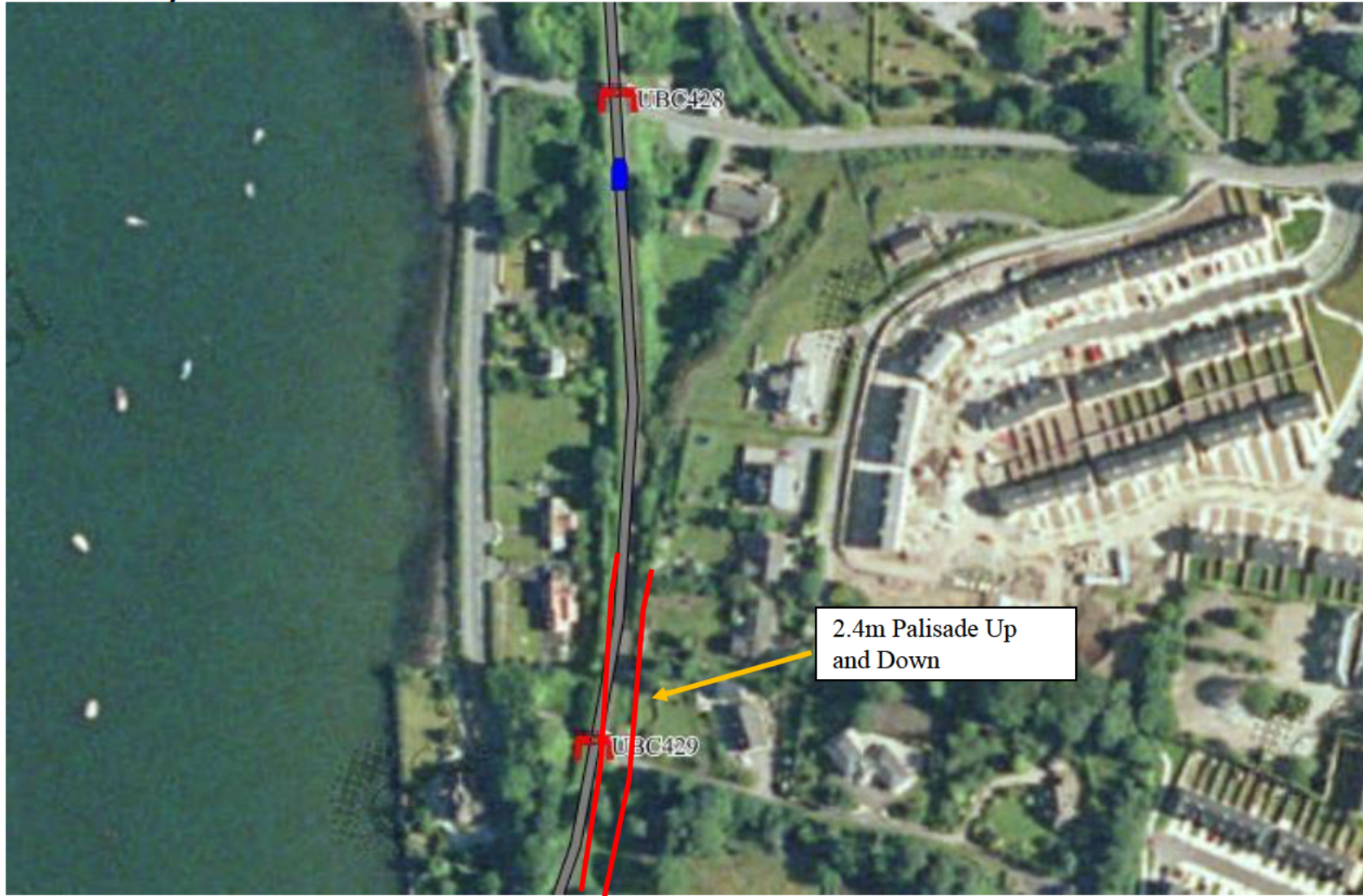
Site 5 - IFI Marino Point



Site 6a - Ballynoe



Site 6b - Ballynoe



Site 6c - Ballynoe



Site 7 - Cobh





Reference No.	CCE-SMS-005
Version	5.0
Operative Date	12/03/2018
Status	Live
Prepared by	MN
Checked by	MG
Approved by	CCE SSG

CCE DEPARTMENT

SAFETY MANAGEMENT STANDARD

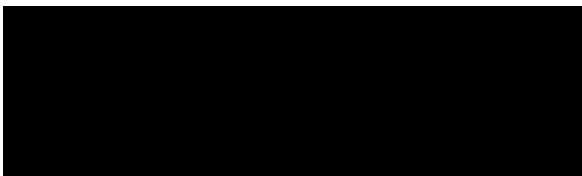
CCE-SMS-005

Contractors Permit to Access

This CCE Department Standard sets out the requirements for the selection, management and monitoring of Contractors within the CCE Department.

This CCE Department Standard is mandatory.

The principles in this Standard are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department and for any Contractor who engages in minor civil engineering work for the CCE department and/or is procured to provide plant or labour services to the CCE Department.



Signed _____ Chief Civil Engineer

This standard, along with all CCE Department Standards is available on the CCE Website. Electronic copies of the Standards are controlled and live. Holders of printed copies of the Standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

**This is a Controlled Document, as presented on-line.
It is Uncontrolled if printed, unless stamped in red ink
"Approved Copy" on all pages.**

Revision Record:

Version No.	Date	Comments
2.0	11/03/13	Adjusted to facilitate IM/RU split
3.0	01/02/14	Adjusted to comply with IM-SMS-005, which was introduced with the EU compliance project.
4.0	07/02/14	"Minor Civil Engineering Works" inserted in clause 1.2.2. Additional clause inserted (1.2.3)
5.0	14/11/2017	Reviewed for CRR Reauthorisation and IM Organisational Change September 2017
		Addition made to clause 1.2.4 to clarify that where a PSCS is appointed and is in receipt of an AF1 form, there is no requirement for a Permit to Access.
		Clause 1.2.5 added regarding technical specialists or technical consultants attending CCE locations
		Clause 1.2.6 added regarding contractors carrying out works that would not be considered minor civil engineering works
		Clause 1.2.7 added regarding the non-applicability of this standard to third parties
		Clause 3.1.9 added regarding permit extension
		Clause 3.10 "Adhere to English as the working language" altered, referencing a contractors English speaking point of contact and the endorsed PTS card for contractors that can not speak English
		Clause 3.3.3 altered mandating the contractors to send a general description of the nature of the works to be carried out

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1 Policy, Scope and Principles

1.1 Policy

- 1.1.1 It is the policy of the CCE Department of Iarnród Éireann to meet the statutory and Iarnród Éireann obligations regarding the management of Contractors and to implement processes and procedures that enables the CCE Department to select and monitor Contractors in the safe execution of their contracts.
- 1.1.2 It is the policy of the CCE Department of Iarnród Éireann that procedures are implemented to enable the CCE Department to procure Contractors in accordance with the requirements of IM-SMS-005.

1.2 Scope

- 1.2.1 This Standard describes how the CCE Department implements a systematic approach to the selection, management and monitoring of Contractors.
- 1.2.2 This Standard covers the selection, management and monitoring of Contractors in all the CCE Department workplaces at all CCE Locations that engage in minor civil engineering works for the CCE department and/or provide plant and labour services for the maintenance and upkeep of the Iarnród Éireann infrastructure only.
- 1.2.3 This standard also applies to contractors who undertake specialist or technical works for the CCE department. In those instances details of specialist or technical certification of staff and equipment and/or a method statement may be required from the Contractor.
- 1.2.4 Large scale Construction Projects carried out by a single Contractor on behalf of Iarnród Éireann are not covered by this standard and will be managed in accordance with the applicable statutory provisions. When a contractor has been formally appointed PSCS for a project and is in receipt of an AF1 form, this standard does not apply.
- 1.2.5 If a technical specialist or technical consultant (e.g. specialist surveyor, a system test engineer, an auditor, etc.) attends to a CCE Location, as a once off visit, with the purpose of doing a specific technical or other scope of work but are doing so under the supervision of an Iarnród Éireann Manager, the “Contractor” is considered a “Visitor” and that Iarnród Éireann Manager takes full responsibility for the safety of such a “Contractor” or “Visitor”. In this case a Permit-to-Access is not required.
- 1.2.6 Where a contractor is undertaking works that could be considered low risk and would not fall under the category of “minor civil engineering works” (as per clause 1.2.2), instruction should be sought from the CCE Safety Manager as to whether a Permit to Access is required.
- 1.2.7 This standard does not apply to third parties who may require access to Iarnród Éireann property. For example, where utility companies or local authorities require access to their assets via Iarnród Éireann property.

1.3 Principles

- 1.3.1 All CCE managers have a duty to promote a safety culture.
- 1.3.2 Line Managers in the CCE Department are directly accountable for the Occupational Health and Safety and for Plant & Machinery Safety for those

workplaces under their control and also for the quality of work that affects Track Safety and Structures Safety in those workplaces. While they can delegate responsibilities in order to ensure Occupational Safety and Plant & Machinery Safety is managed, the accountability cannot be delegated.

- 1.3.3 Line managers will organise their operations so that work is planned such as to ensure the availability of the required resources, competent Contractors, competent people, appropriate equipment and adequate time.
- 1.3.4 In advance of any works taking place, Line Managers must make available to the Contractor any safety related information concerning the risks and hazards applicable to the task(s) the Contractor is procured for, including any risk or hazards specific to the location that the task(s) will be undertaken at to enable the Contractor to conduct their activities in accordance with the applicable statutory provisions.
- 1.3.5 That hazards are identified and risks are assessed and controls and precautionary/mitigation actions are implemented to limit the probability of those risks occurring.
- 1.3.6 Accountable Line Managers monitor the Occupational Health and Safety of the CCE Location that they are accountable for by adhering to a programme of specific Safety Tours.
- 1.3.7 Contractors, contracted to deliver work for Iarnród Éireann. must manage and supervising their own teams as they deem appropriate to ensure workplace Safety.
- 1.3.8 Contractors are fully accountable for ensuring that they and their staff are competent and that they execute their tasks safely and in accordance with all the applicable statutory provisions.
- 1.3.9 Contractors are fully accountable for ensuring that all plant supplied is in safe working order, maintained in accordance with the manufacturers recommendations and certified in accordance with all the applicable statutory provisions.
- 1.3.10 This document forms an integral part of the Contractor's Terms of Contract (Principle).
- 1.3.11 Iarnród Éireann reserves the right to withdraw a Contractor's "Permit to Access" where safety non compliances are observed (Principle).
- 1.3.12 Terminology such as "his" or "manager" in this Standard is not gender specific.

2 Responsibilities

2.1 Responsibilities which are specific to this standard.

- 2.1.1 Accountable Line Managers are accountable for the inspection and monitoring of Contractors, through Safety Tours, at the CCE Location he is responsible for.
- 2.1.2 Accountable Line Managers are accountable for, in advance of any works taking place making available to the Contractor any safety related information concerning the risks and hazards applicable to the task(s) the Contractor is procured for, including any risk or hazards specific to the location that the task(s) will be undertaken at to enable the Contractor to conduct their activities in accordance with the applicable statutory provisions.
- 2.1.3 Local Safety Executives are responsible for inspecting and monitoring Contractors for compliance with the applicable statutory provisions and Iarnród Éireann rules and procedures.
- 2.1.4 The Contractor Safety Manager and his team is accountable for ensuring the documentation, as outlined in this standard is submitted by the Contractor and forwarded to the CCE Contractor Review Panel for review and acceptance before a "Permit to Access" is issued. Permits issued to a contractor allow for supervised access to all CCE locations and are issued for periods not exceeding 12 months.
 - 2.1.4.1 The CCE Contractor Review Panel will consist of at least one member of the CCE Safety Department or the Contractor Safety Manager and a minimum of one member of the CCE Management team nominated by any of the following; the Chief Civil Engineer, an Infrastructure Manager, the Buildings and Facilities Manager or the Production Manager.
 - 2.1.4.2 The CCE Contractor Review Panel will inform the Contractor Safety Manager of the CCE staff involved in each Contractor review.
 - 2.1.4.3 CCE Contractor Review Panel is accountable for ensuring that the Safety Management Submissions provided by Contractors are reviewed and where appropriate accepted.
- 2.1.5 The Safety Manager CCE is accountable for managing, controlling and implementing a Contractor Audit programme within the CCE Department.
- 2.1.6 The Contractor is accountable for executing his tendered scope of work in a Safe manner and in compliance with the applicable statutory provisions.
- 2.1.7 The Contractor must, for every site where works are to take place under the "Permit to Access", appoint a person, known as the "Contractor's Charge Person" acting on the Contractors behalf, with responsibility and accountability for ensuring that works are constantly monitored and checked to ensure that their activities are in compliance with this standard and all of the applicable statutory provisions.
- 2.1.8 The "Contractor's Charge Person" must make themselves known to the IÉ supervisor in charge of the works prior to the commencement of the shift before accessing any CCE Location.

3 Implementation

3.1 How to qualify a Contractor as “Permit to Access”

- 3.1.1 A Contractor that has pre-qualified at procurement stage will be requested to submit the relevant documentation to the Contractor Safety Manager in accordance with Section 3.3 of this Standard.
- 3.1.2 The Contractor Safety Manager will ensure that the documentation detailed in section 3.3 of this Standard is submitted by the contractor.
- 3.1.3 The Contractor Safety Manager will verify that all submitted certification for plant and staff is correct and in date at the time the submission was made.
- 3.1.4 The Contractor Safety Manager will forward the remaining documentation to the CCE Contractor Review Panel for review and acceptance before a “Permit to Access” is issued.
- 3.1.5 The CCE Contractor Review Panel will ensure that the Safety Management Submission provided by the Contractor is reviewed and where appropriate accepted.
- 3.1.6 The CCE Contractor Review Panel will advise the Contractor Safety Manager in writing whether or not the submission is accepted or if more information is required. (Appendix 4)
- 3.1.7 Provided that all information submitted is deemed as accepted by the CCE Contractor Review Panel, the Contractor Safety Manager, on behalf of the CCE Contractor Review Panel, will issue the Contractor with a “Permit to Access”.
- 3.1.8 The Contractor Safety Manager will advise Line Managers when a Contractor has been issued with a “Permit to Access” and the duration of same.
- 3.1.9 If it arises that a contractor is in the process of renewing a permit and works have commenced or are about to commence, the Contractor Safety Manager, with prior agreement of the CCE Safety Manager, may extend the existing permit for a maximum of seven days, to allow the renewal process to be completed.

3.2 What accountability goes with “Permit to Access” status of Contractors

- 3.2.1 A Contractor that receives a Permit to Access to work for the Iarnród Éireann CCE Department;
 - 3.2.1.1 Retains total accountability for the implementation of legislation in relation to the occupational safety of his employees and the works he contracted for.
 - 3.2.1.2 Must ensure that any employees used by the Contractor secure the appropriate safety briefings provided by Iarnród Éireann in advance of any work being undertaken.
 - 3.2.1.3 Ensure that competence cards/certificates are produced to the Iarnród Éireann Accountable Line Manager or his representative on site during the briefing process and are available at all times for auditing purposes.
 - 3.2.1.4 Must advise the Contractor Safety Manager of any additions or alterations to the original Safety Management Submission in relation to staff competency or plant certification at least 7 calendar days prior to the staff or plant in question accessing any CCE location.
 - 3.2.1.5 Must ensure that staff or plant not provided for in the submission as outlined in 3.3 or have not been notified to the Contractor Safety Manager at least seven calendar days in advance are not presented for work at any CCE location.

- 3.2.1.6 Must ensure that the certification in the submission for plant and staff is maintained for the duration of the “Permit to Access” and details of alterations / revisions / re-certification forwarded to the Contractor Safety Manager.
- 3.2.1.7 Must ensure that a Contractor Charge Person acting on behalf of the Contractor is provided at the site of work ensuring that works are constantly monitored and checked so that activities are in compliance with this standard and all of the applicable statutory provisions. Specifically;
 - 3.2.1.7.1 To relay the instructions of the Iarnród Éireann Accountable Line Manager or his representative on site to the Contractor’s personnel and for ensuring that these instructions are carried out.
 - 3.2.1.7.2 To ensure that the scope of work is controlled, monitored and supervised to the extent that any Hazards and Risks can be identified and Risk Assessed and contained without resulting in an Accident, inclusive of hazards advised by the Iarnród Éireann Accountable Line Manager or his representative on site.
 - 3.2.1.7.3 To advise and inform the relevant IÉ representative of any hazards that the Contractor’s activities might pose to persons or to Iarnród Éireann plant other than the Contractor’s own personnel or plant.
 - 3.2.1.7.4 Ensure that all plant and equipment used by the Contractor is secured and locked at the end of each working shift.
 - 3.2.1.7.5 Ensure that all plant and equipment that may pose a risk to the operational railway from trespassers is removed at the end of each working shift.
 - 3.2.1.7.6 The “Contractor’s Charge Person” must present himself to the IÉ supervisor prior to entering any CCE location and must be present at all times when work is being carried out by the Contractor’s personnel.
 - 3.2.1.7.7 Where and when agreed with the Iarnród Éireann Accountable Line Manager or his representative on site, the role of “Contractor’s Charge Person” can be transferred to another competent person working for the Contractor.

3.3 “Safety Management” submissions

- 3.3.1 A Contractor may not seek a “Permit to Access” unless they have pre-qualified at procurement stage and have met all criteria set out in the pre-qualification questionnaire.
- 3.3.2 A Pre-qualified Contractor may be requested to submit a “Safety Management” submission.
- 3.3.3 The “Safety Management” submission must be made (in electronic pdf “soft” copy) to the Contractor Safety Manager. When sending the submission the contractor should also provide a cover note providing a short description of the general nature of the works to be carried out for Iarnród Éireann during the currency of the “Permit to Access”.
- 3.3.4 The “Safety Management” submission will consist of a single file that contains the following documents:
 - 3.3.4.1 Written Safety Statement.
 - 3.3.4.1.1 The Contractor will submit the current written and signed Safety Statement of his company which must comply as a minimum with the provisions of Section 20 of the Safety, Health and Welfare at Work Act 2005. The Safety Statement submitted must have been reviewed by the contractor within the preceding 12 months.

- 3.3.4.1.2 The Safety Statement submitted by the Contractor must reflect that the activities undertaken by the Contractor will be conducted in a railway environment.
- 3.3.4.1.3 The Safety Statement submitted by the Contractor must contain Risk Assessments (in accordance with Section 19 of the Safety, Health & Welfare at Work Act 2005) for each of the activities identified.
- 3.3.4.2 Record of Competent Staff
 - 3.3.4.2.1 The Contractor shall ensure that his personnel are trained, competent and medically/physically fit to conduct the planned work in accordance with legislative requirements and Iarnród Éireann personal track safety requirements.
 - 3.3.4.2.2 If working on or near a running rail line contract staff should have a valid Personal Track Safety (PTS) Certificate for which they are required to be medically certified to hold. The standards for such medical certification are available from Iarnród Éireann.
 - 3.3.4.2.3 The Contractor shall provide an excel spreadsheet register of staff and pdf soft copies of training/certification of all personnel that satisfies both the requirements of the applicable statutory provisions and IE requirements.
 - 3.3.4.2.4 In addition Contractors must provide copies of current training certification for all staff in Personal Track Safety and Manual Handling. Manual Handling training and certification must been achieved within the previous 3 years.
- 3.3.4.3 Record of Plant and Machinery Certification
 - 2.1.1.1.1 The Contractor shall provide copies of all certification relating to plant/machinery and lifting equipment that satisfies the requirements of the applicable statutory provisions.
 - 2.1.1.1.2 The Contractor shall ensure that all road rail plant detailed on the Safety Submission is fully compliant with CCE Standard IPLM 5001 and maintains compliance with the standard for the duration of the Permit-to Access.
- 3.3.4.4 Contractor Emergency Procedures -In addition to the requirements of the Safety, Health and Welfare at Work Act 2005 the Contractor:
 - 3.3.4.4.1 Must describe how its team will respond to emergency environmental incidents and outline response methods and mitigation measures to be implemented in the likelihood of such an event
 - 3.3.4.4.2 Must describe how its team will remove items of large plant or equipment from the railway in the event of a break down or malfunction.
- 3.3.4.5 Workplace Clean-up
 - 3.3.4.5.1 The Contractor shall describe how the work area will be cleaned up on completion of the work.
- 3.3.4.6 Written Method Statements
 - 3.3.4.6.1 Depending on the Scope of Work the Contractor may be requested to submit a site specific Method Statement at the time of the original submission or at any time within the duration of the issued Permit-to Access. The CCE Department will advise the Contractor when a Method Statement is required.
 - 3.3.4.6.2 As a minimum the submitted Method Statement must contain the following information:

- 3.3.4.6.2.1 A step-by-step explanation of how the scope of work is to be done with special reference at every step to the safety considerations (should typically follow a recognised code of practice where available, e.g. use of PPE, safe use of tools and equipment, etc.).
- 3.3.4.6.2.2 An explanation of the procedures that will be followed to ensure the work will be carried out in a safe manner (e.g. procedure for the safe disposal of chemicals, etc.).
- 3.3.4.6.2.3 An explanation of the specific risk control measures that will be active during the period of the works and which will detect Hazards and Risks to safety. These will be in the form of signed risk assessments.
- 3.3.4.6.2.4 An explanation of how the Contractor will control the whole scope of work in order to ensure that the work is done safely and the provisions of the Iarnród Éireann “Permit to Access” Standard will be adhered to and not breached.
- 3.3.4.6.2.5 A detailed explanation of how the Contractor will control work involving the particular risks as defined (but not limited to) in the Safety Health and Welfare at Work (Construction) Regulations 2013 in order to ensure that the work is done safely and the provisions of the Iarnród Éireann “Permit to Access” Standard will be adhered to and not breached.
- 3.3.4.6.2.6 An explanation of how the written “Method Statement” and all other Safety information (e.g. Risk Assessments, Method Statement, etc) will be communicated to all the Contractor’s staff.

3.4 What does a “Permit to Access” mean to a Contractor

- 3.4.1 A Permit to Access allows the Contractor supervised access to all CCE locations for a period of up to 12 months.
- 3.4.2 Having been issued with a “Permit to Access”, the Contractor does not have the right to start any works or go “on or near the line”.
- 3.4.3 Work can only be started with the approval of the local Accountable Line Manager or his representative on site in the relevant location, following the briefing of the associated Method Statement/Safe System of Work and Risk Assessments. See Appendix 1 – Permit-to-Access

3.5 Maintaining a “Permit to Access” database

- 3.5.1 The Contractor Safety Manager is responsible for maintaining a “Permit to Access” database, Specifically:
 - 3.5.1.1 That a register of all Safety Management Submissions and accepted Permits-to-Access is maintained.
 - 3.5.1.2 Advise the relevant contractor and line managers when a “Permit to Access” has been issued
 - 3.5.1.3 To notify Accountable Line Managers per CCE Location, through an accessible list or database, which Contractors have live permits.
 - 3.5.1.4 That a complete a record of Permits-to-Access (issued and lapsed) and associated “Safety Management” submissions are kept for a period of 6 years.
 - 3.5.1.5 The Contractor Safety Manager shall advise the contractor annually to resubmit the safety submission for permit renewal 30 days prior to the expiry of the existing permit.

3.6 Monitoring and Inspecting of Contractors

- 3.6.1 The Accountable Line Manager responsible for the CCE Location is accountable for ensuring that all Contractors working in or at that CCE Location are regularly monitored and inspected according to this Standard and CCE-SMS-001, Specifically:
- 3.6.1.1 That Contractors are regularly inspected on Safety Tours (as in CCE-SMS-008) to ensure they work strictly in accordance with the method statement/safe system of work for the activity being undertaken.
 - 3.6.1.2 That no Contractor is allowed to do any work without an in-date "Permit to Access".
 - 3.6.1.3 The contractor will be monitored by IM CCE staff who must be satisfied that the work undertaken is fit for purpose.
 - 3.6.1.4 A Permit-to Access may be subject to change or termination where a serious breach (or consistent minor breaches) of Safety & Health rules and or regulations are observed.

3.7 Auditing of Contractors

- 3.7.1 The local Safety Executive for the CCE Location is accountable for regular audits of those Contractors working in or at the CCE Location.
- 3.7.2 The Safety Manager CCE will manage, control and implement a Contractor Audit programme within the CCE Department and will record the findings of such audits including details of any non compliance and follow up with corrective actions where required.
- 3.7.3 The Safety Manager CCE will periodically monitor the safety performance of Contractors engaged in works on behalf of the CCE Department. Details of major and / or consistent non-compliance will be recorded and raised at local safety meetings with CCE management and at the Contractor Safety Review Workshop.
- 3.7.4 Local Safety Executives for the CCE Locations as part of their normal auditing programme will do unannounced audits on Contractors; recording findings on the Safety Executive Audit Form (See Appendix 2) and advise the Safety Manager CCE as to findings from these audits, specifically:
- 3.7.4.1 The local Safety Executives will record observed non-compliances and issue corrective action notices accordingly, copies of all audits conducted and corrective action notices issued must be forwarded to the Safety Manager CCE.
 - 3.7.4.2 The local Safety Executive will bring details of Contractor non-compliance to the Safety Review Workshops for discussion with the accountable line manager for that location.
 - 3.7.4.3 Any observed / reported major non-compliance must be notified to the accountable line manager and the CCE Safety Manager as soon as is practicable.
 - 3.7.4.4 Copies of all audits conducted must be sent timely to the Contractor Safety Manager.

3.8 Corrective Action Notice

- 3.8.1 A Corrective Action notice is a document issued to the Contractor at the time of audit. The document will outline the observed non-compliance and required corrective actions to address the issues detailed. (See Appendix 3)

- 3.8.2 A written Corrective Action Notice will be issued to the nominated member of the Contractor's staff and a formal response must be returned to Iarnród Éireann within 48 hours of issue. (the time detailed on the Corrective Action Form initiates the 48 hour time frame)
- 3.8.3 The Corrective Action Notice will be signed by the CCE Safety Executive undertaking the audit and must also be signed by the Contractor Charge Person.
- 3.8.4 Corrective Actions Notices may be issued subsequent to reported breaches where an investigation has shown that a breach has occurred.

3.9 Contractor's Personnel will adhere to Iarnród Éireann "Drugs and Alcohol Policy"

- 3.9.1 The Contractor shall ensure that the Contractor's personnel will not be under the influence or in possession of alcohol or illegal substances while on an Iarnród Éireann site or CCE Location.
- 3.9.2 The Contractor shall ensure that medication does not adversely interfere with a person's ability to carry out work safety.
- 3.9.3 The Contractor shall ensure that the Contractor's personnel is briefed on the Iarnród Éireann "Drugs and Alcohol Policy" and advised that they are subject to the terms of this Policy while working on Iarnród Éireann premises.
- 3.9.4 Contractors must have procedures in place to deal with these requirements.

3.10 Adhere to English as the working language

- 3.10.1 The Contractor shall ensure that the use of language does not affect the Contractor's obligations to execute the scope of work safely, Specifically:
 - 3.10.1.1 The Contractor shall ensure that, when non-English speaking personnel are employed by the Contractor, a sufficient number of English speaking personnel are available to interface with Iarnród Éireann.
 - 3.10.1.2 The Contractor shall ensure that, when non-English speaking personnel are employed by the Contractor, all the required safety documentation, safety instructions or safety signage will be translated effectively into the other language.
 - 3.10.1.3 Non English speaking PTS holders must have their PTS card endorsed with: "Must be accompanied by an English speaker".
 - 3.10.1.4 To ensure the safety of all non-English speaking Contractors while on IÉ Infrastructure all Contractors supplying employees who are non-English speaking to carry out work 'on or near the line' are obliged to provide as a minimum one English speaking employee who will act as a 'point of contact' for IE Staff while delivering Site Safety Briefings or additional Safety Briefings which may affect the Contractors employees whether directly or indirectly.
 - 3.10.1.5 This 'point of contact' can be a direct employee of the company who has a working knowledge of English or if required the services of an interpreter may be employed. If the services of an interpreter is required, this person must also be in receipt of Personal Track Safety (PTS) card and other legislative requirements when 'on or near the line' (the Contractor must bear all costs in relation to this persons employment).

- 3.10.1.6 This 'point of contact' name and contact details should be formally submitted to IÉ at the planning process. These details should be confirmed at the Control Room process prior to works taking place and forwarded to the IÉ staff member with responsibility for delivery of the required Site Safety Briefings for the planned works.
- 3.10.1.7 Following the Control Room process the Contractors 'point of contact' should be furnished with the details of the locations for IÉ site Safety Briefings and the contact details of the IE staff member delivering the required Site Safety Briefings.
- 3.10.1.8 If for any reason staff from either of the parties referenced in above are changed, the other party must be informed.

3.11 Young Persons and Special Needs Persons

- 3.11.1 The Contractor shall obtain written permission from Iarnród Éireann before allowing persons under the age of 18 or any Special Needs Persons to work on any "Permit to Access".
- 3.11.2 The Contractor shall submit a written Risk Assessment of the specific activities or the Young Persons or the Special Needs Persons to Iarnród Éireann that will include specific Risk Controls related to briefing, informing and controlling such activities.

3.12 Safety Consultation

3.12.1 If representations have to be made by the Contractor to Iarnród Éireann on matters relating to site safety, the Contractor or the “Contractor’s Charge Person” or the Contractor’s staff Safety Representative must approach the Iarnród Éireann Accountable Line Manager or his representative on site.

3.13 Personnel availability for matters related to safety

3.13.1 The Contractor shall make his personnel available, at no additional contract cost, for any matters related to safety as would be expected in the normal running of any contract, for example:

3.13.1.1 Making Contractor’s personnel available for Iarnród Éireann’s safety induction at site (typically 1 – 2 hours or as required depending on the scope of work),

3.13.1.2 Making Contractor’s personnel available for doing Risk Assessments, safety reviews and/or any other Safety Management task required under the contract or under the “Permit to Access”.

3.14 Accident reporting

3.14.1 The Contractor shall immediately report all accidents (whether minor or those incurring lost time), dangerous occurrences and “near misses” as soon as possible to the IE Line Manager or his representative on site.

3.14.2 Contractors must carry out their own formal investigation into all accidents, dangerous occurrences and “near misses”, and submit written reports to the Iarnród Éireann CCE Department in addition, Contractors must co-operate with and assist Iarnród Éireann in its own investigation.

3.14.3 Reportable accidents and dangerous occurrences must be reported directly by the Contractor to the Health and Safety Authority in accordance with Part X of the Safety, Health and Welfare at Work (General Application) Regulations SI 44 1993. However, the Contractor must provide a copy of the statutory IRI or IR3 form (as appropriate) to the Iarnród Éireann CCE Department.

3.14.4 Accidents involving contractors must be reported by the IE Line Manager to the Safety Manager CCE and the Contractor Safety Manager.

3.15 Contractor’s Insurance

3.15.1 All Contractors must have minimum insurance cover as required by the procurement documentation.

3.15.2 Certificates detailing the Contractor’s insurance cover must be made available by the Contractor for examination by Iarnród Éireann and should be checked with the Contractor and Supplier Insurance Procedure.

4 Contractor Information

4.1 Iarnród Éireann Safety Management System

- 4.1.1 The Contractor is entitled to examine the Iarnród Éireann Safety Management System for the CCE Location where the work is to be conducted.
- 4.1.2 The Contractor can review the Safety Statement at the local Safety Station or make a request to the Line Manager accountable for that CCE Location. He can request any appropriate risk assessments, safety systems of work or local specific risk information from the accountable line manager for that CCE location.
- 4.1.3 Occupational Features Forms detailing site specific hazards will be made available to Contractors engaged in works on behalf of the CCE Department.
- 4.1.4 Safe systems of work and associated documentation will be made available to Contractors engaged in works in on behalf of the CCE Department.

5 Contractor Safety Review Workshop

5.1 Schedule and Objectives of the review

- 5.1.1 A Contractor's Safety Review Workshop is held once every two months. This review is recorded in minutes. The "Contractor's" Safety Review Workshop is chaired by the of Safety, Infrastructure and is conducted as an active workshop with the following key objectives:
 - 5.1.1.1 To review Contractor's related Hazards from either findings from Safety Executive Site Audits, other Site Audits, Hazard Report Forms, Accident Reports, findings from Risk Assessments, audits of Contractors, employee feedback or any other source (e.g. audits).
 - 5.1.1.2 To review mitigations already implemented and identify or suggest any further actions required.
 - 5.1.1.3 To review the progress of the implementation of all the related actions for any other Contractor's Hazards previously identified.
- 5.1.2 The "Contractor's" Safety Review Workshops should be set for specific dates during the year and these dates should not be varied.
- 5.1.3 The Head of Health & Safety, IM will determine the dates of all "Contractor's" Safety Review Workshops.

End of Standard

6 Appendix 1-Permit to Access

CCE Permit-to-Access – (Name of Contractor) January 2014



Contractor Name	XXXX
Address	XXXX
	XXXX
County	XXXX

Dear Contractor Name

Please be advised that your Safety Submission in accordance with CCE-SMS-005 has been approved by a CCE Contractor review panel and you are now permitted supervised access to all CCE locations for the period detailed below.

Contractor Name	Service Details	Permit Period	Permit Unique No
XXXX	Provision of heavy plant	1 st January 2014 to 31 st December 2014	PTA - 01(2014) MNPH

Note that only staff and or plant detailed in this submission is permitted to access CCE Locations under the following conditions:

- Permission has been granted by a CCE supervisor to enter the CCE Location
- Permission has been granted by a CCE supervisor to commence work
- The appropriate railway protection arrangements are in place and approved by a CCE supervisor

Any additions or amendments must be notified to the Contractor Safety Manager at a minimum of seven calendar days prior to entry to any CCE work location.

Please ensure that this Permit-to-Access is issued to all Contractor Charge Persons for auditing purposes. This Permit-to-Access may be subject to change or termination where a serious breach (or consistent minor breaches) of Safety & Health rules and or regulations are observed.

Issued by:

XXXX

Date:

Contractor Safety Manager

CCE-SMS-005 Permit-to-Access

8 Appendix 3–Corrective Action Notice Form

Corrective Action Notice Form Number:

CCE	CA0001
-----	--------

CCE DEPARTMENT **CORRECTIVE ACTION NOTICE FORM (C.A.N)**

AUDIT DETAILS

Site Audit Form Number: _____

Audit Date: _____

Location (Division & mileage): _____

Details of Work (Relaying, muck digging etc.): _____

CONTRACTOR DETAILS

Contractor Name: _____

Permit to Work Number: _____

Work Description (Plant/Labour?): _____

DETAILS OF CONTRACTOR NON-COMPLIANCES

ACTIONS (Please note: If dealt with on site or if further action was required by IE Contract Safety Executive).

SAFETY EXECUTIVE SIGNATURE

Print Name: _____

SIGNED: _____

9 Appendix 4 Contractor Review Panel Form

Contractor Review Panel – (Name of Contractor)



FAO	Contractor Safety Manager
Address	Track & Signals Building
	Inchicore Works
	Inchicore
Date	XX/XX/XXXX

Contractor Safety Manager,

Please be advised that a CCE Contractor Review panel was held on XXXX as detailed below.

Contractor Details	Panel Members	Review Location

The Safety Statement submitted by the Contractor was reviewed for compliance with the requirements of Section 20 of the Safety, Health and Welfare at Work Act 2005.

REVIEW DETAILS	Submitted		Adequate	
	Yes	No	Yes	No
Protective & Preventative Measures & Resources				
Emergency Procedures				
Duties of Employees – employer co-operation				
Names and titles of persons with specific duties				
Arrangements for Safety Reps & Consultation				
Details of annual review – update and briefing				
Section on specific risks and controls				
Safety Statement reflected works to be undertaken on the railway.				
COMMENTS / REASON FOR NON APPROVAL				

The Safety Statement submitted by the Contractor was reviewed for compliance with the requirements of Section 19 of the Safety, Health and Welfare at Work Act 2005.

REVIEW DETAILS	Submitted		Adequate	
	Yes	No	Yes	No
Submitted in accordance with Section 19 Of the Act				
Relevant to a railway environment				
Reflect the type of service being supplied by the Contractor				
COMMENTS / REASON FOR NON APPROVAL				

This Submission is approved / not yet approved.

Please arrange issue of a 12 Month Permit-to Access to the above contractor to enable supervised access to CCE Locations.

Please advise the Contractor that additional information as detailed above is required

CCE-SMS-005 Contractor Review Panel Form



Reference No.	IPLM-5001
Version	1.3
Operative Date	1 st January 2015
Status	LIVE
Prepared by	[REDACTED]
Checked by	[REDACTED]
Approved by	[REDACTED]

CCE Department

Plant and Machinery Standard

I-PLM-5001

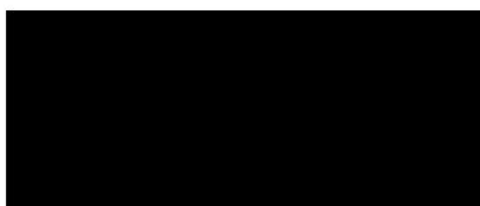
Certification of Road/Rail Vehicles

This CCE Department Plant & Machinery Standard sets out the design and maintenance requirements for road/rail vehicles intended for use on Iarnród Éireann.

This CCE Department Standard is mandatory.

The principles applied in this Plant and Machinery Standard are approved by the Head of Department and therefore constitute mandatory statutory practices, which apply throughout the CCE Department.

Signed



Chief Civil Engineer

This standard, along with all CCE Department Standards, is available on Iarnród Éireann SharePoint. Electronic copies of the standards are controlled and live. Holders of printed copies of the standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

This is a Controlled Document, as presented on-line.

**It is uncontrolled if printed, unless endorsed
on this page with the approved and completed
"Controlled Copy" label/stamp**

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1 POLICY AND PRINCIPLES

1.1 Policy

- 1.1.1 Road/rail vehicles (RRVs) must be designed and maintained in a manner that does not jeopardise the safe and efficient operation of the railway.

1.2 Principles

- 1.2.1 Road/rail vehicles must meet the criteria laid out in this standard before they can be operated on Iarnród Éireann (IÉ) track.

- 1.2.2 RRV operators must be competent to operate their vehicles when on IÉ track. An operator of a vehicle must be in possession of:

- An up-to-date PTS (personal track safety) certificate.
- An up-to-date Safe Pass Certificate.
- Construction Skills Certification Scheme (CSCS) relevant to the specific vehicle.
- An IÉ-approved certificate of competence to operate RRVs. This may be provided by IÉ-approved training providers.
- The appropriate PPE (personal protective equipment).

- 1.2.3 The term **RRV** can cover a wide variety of vehicles and it would be difficult to adequately cover every vehicle in this standard. Where an owner or operator is unsure of how to apply this standard, clarification should be sought from IÉ or its representative before approvals begin.

- 1.2.4 This standard must be applied in full to all RRVs on the IÉ network.

- 1.2.5 Certification will be issued for an RRV when it:

- (a) Meets the technical criteria set out with this standard.
- (b) Has the appropriate mandatory certification under Irish legislation including:
 - signed certificates from the manufacturer specifying the safe working load (SWL) of each RRV, taking account of different configurations of the RRV and any additional safety provisions
 - the 12-monthly Report of Thorough Inspection by an independent examiner (not the owner) for each RRV
 - the Weekly Inspection Report by the operator/driver for each RRV

- 1.2.6 When the requirements of 1.2.5 are complied with, an Engineering Acceptance Certificate will be issued by IÉ or its representative. Each Engineering Acceptance Certificate will identify the vehicle, define the vehicle configuration, and identify the maintenance documentation and any limitations applicable for the safe use of the vehicle. Copies of the Engineering Acceptance Certificate must be carried on all vehicles at all times.

- 1.2.7 The expiry date for Engineering Acceptance Certificate must be displayed on a label on each side of machine, adjacent to the data panel. A sample of the label is shown in Appendix A. The label must be yellow with black text, and the IE Logo included. The label must fit a sheet of A4 paper, minimum size 230mm x 150mm. The label must be a sticky label, not a paper print.
- 1.2.8
- 1.2.9 Modifications to vehicles must also be in accordance with this standard and assessed by IÉ or its representative. A new Engineering Acceptance Certificate will be issued for the modification.
- 1.2.10 An application for derogation will need to be made to IÉ if any RRV is not able to fully meet the requirements of this standard or if it is not thought reasonable to comply with the standard.
- 1.2.11 Approved equipment must meet the requirements of Safety, Health and Welfare at Work (Construction) Regulations 2006 and Safety, Health and Welfare at Work (General Application) Regulations 2007 - Use of Work Equipment.
- 1.2.12 Terms such as craftsmen in this standard are not gender specific.

2 ABBREVIATIONS

- 2.1.1 The established definitions of all permanent way terminology used in standards and procedures are set out in *CCE-TMS-399 Glossary of Civil and Permanent Way Engineering Terms*. The abbreviations below are of particular relevance to this standard:
- **CSCS** – Construction Skills Certificate Scheme
 - **EMC** – electromagnetic compatibility
 - **GVW** – gross vehicle weight
 - **HLD** – height limiting device
 - **IÉ** – Iarnród Éireann
 - **MEWP** – mobile elevated work platform
 - **OHLE** – overhead line equipment
 - **PPE** – personal protective equipment
 - **PTS** – personal track safety
 - **RCI** – rated capacity indicator
 - **RRV** – road/rail vehicle
 - **SWL** – safe working load
 - **WLL** – working load limit

3 STRUCTURAL DESIGN

3.1 Rail Wheels and Axles

- 3.1.1 Rail wheels and axles must be ferrous and their structural integrity proven as fit for purpose for the intended use of the RRV. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.1.2 For new vehicles of new design, this must be demonstrated by calculation.
- 3.1.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration will be through written evidence of identical vehicles with the same or worse operating conditions.
- 3.1.4 For vehicles of less than 1 tonne GVW, wheels can be made from aluminium but they must comply with the above structural requirements.
- 3.1.5 Rail wheel loading must meet the requirements of the table below.

Table 1: Rail Wheel Diameter Requirements

Wheel diameter in new condition (mm)	Maximum static load per wheel (tonnes)
≥840	11
840> - ≥760	10
760> - ≥680	9
680> - ≥630	8.25
630> - ≥550	7.25
550> - ≥470	6
470> - ≥390	5
390> - ≥330	4.25
330> - ≥270	3.5
270> - ≥210	1.5
210> - ≥130	1

- 3.1.6 Rail wheels must be one of the following profiles: UK/ P1, UK/ P10 or UIC 510-2. They must be between 127 mm and 140 mm wide. The back-to-back flange dimension must be 1524 mm +0.0/-0.5.

3.2 Rail Gear

- 3.2.1 The structural integrity of the rail gear must be proven as fit for purpose within the intended use of the RRV. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.2.2 For new vehicles of new design, this must be demonstrated by calculation.
- 3.2.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration will be through written evidence of the safety record of identical vehicles with the same or worse operating conditions.

- 3.2.4 All rail gear must be positively locked by design or protected by hydraulic check valves. This locked state must be maintained if the operating system fails.
- 3.2.5 Vehicles which have an active type suspension, such as Unimogs, must have a system to warn the operator of a pressure loss and allow the vehicle to be safely brought to a stand.

3.3 General Structural Integrity

- 3.3.1 If the base vehicle is an existing CE-marked road vehicle (in accordance with EU Directive 93/68/EEC), any modifications for its use on rail must be assessed as fit for purpose by IÉ or its nominated representative.
- 3.3.2 Purpose-built rail vehicles such as trailers need full assessment to prove that their structural integrity is fit for the intended use of the vehicle. This must take into account the worst-case operating conditions that the vehicle could encounter including vehicle weight, speed and track conditions.
- 3.3.3 For existing vehicles or new vehicles of existing design, it is acceptable to demonstrate a minimum of 1000 hours safe use. This demonstration must be through written evidence of the safety record of identical vehicles with the same or worse operating conditions.

4 STATICS AND DYNAMICS

4.1 Statics

- 4.1.1 All vehicles must have adequate static wheel loadings to ensure the vehicle's stability both on level track and with the worst-case operating conditions of maximum cant, twist and gradient.
- 4.1.2 All vehicles must maintain a minimum of 600 kg load on the lightest rail wheel with the worst-case track conditions. Where this is not possible due to the design and base weight of the vehicle, a technical justification and dynamic test on worst-case conditions must be undertaken to prove the vehicle can operate safely.
- 4.1.3 Vehicles with wheel loads of less than 2 tonnes cannot be expected to operate train-operated points.

4.2 Dynamics: Travelling Mode

- 4.2.1 In the travel mode with the worst-case operating conditions, a vehicle must be capable of travel on any combination of the following track features:
- 165 mm cant
 - 80 m radius curve
 - 1-in-29 gradient
 - Track twist as in Appendix B
- 4.2.2 When a vehicle cannot be safely used on the track conditions detailed in 4.2.1, the worst-case conditions which it can safely negotiate must be clearly identified and listed on the vehicle's Engineering Acceptance Certificate.

4.3 Dynamics: Working Mode

- 4.3.1 In the working mode with the worst-case operating conditions, a vehicle must be capable of negotiating any combination of the following track features:
- 165 mm cant
 - 80 m radius curve
 - 1-in-29 gradient
 - Track twist as in Appendix B
- 4.3.2 When a vehicle cannot be safely used on the track conditions detailed in 4.3.1, the worst-case conditions which the vehicle can safely negotiate must be clearly identified and listed on the vehicle's Engineering Acceptance Certificate.
- 4.3.3 Vehicles that have a lift-and-carry duty must be restricted to a maximum working speed of 6 km/h (when operating in that mode) and be under the control of the RCI (rated capacity indicator) or below the SWL (safe working load) of the vehicle.

4.4 Dynamic Testing, Including Speeds

- 4.4.1 All vehicles must undergo a dynamic test at an IÉ-approved location. This test should cover a multitude of track conditions and features that the vehicle should negotiate at a variety of speeds.
- 4.4.2 As a minimum, the test should cover the following, as the site will allow:
- Gradients
 - Points and crossings
 - Welded and jointed track
 - Curves and curve transitions
 - Level and canted track
 - Vehicle speeds
- 4.4.3 The maximum speed on rail for any road/rail vehicle must be 32 km/h. If the vehicle is capable of exceeding 32 km/h on rail, it must be:
- Fitted with a device that prevents the vehicle from exceeding 32 km/h on rail, or
 - Fitted with an audible warning device which warns the operator that the vehicle speed has exceeded 32 km/h.
- 4.4.4 This maximum speed will need to be reduced when travelling in reverse should the visibility be reduced. The reverse movement must be controlled by a ground observer or rear control position.
- 4.4.5 Operators may need to adjust their maximum speed to take into account rail-head conditions, e.g. adhesion problems.
- 4.4.6 The maximum speed over points, switches and crossings must be 8 km/h.
- 4.4.7 The maximum speed through raised checkrails must be 2 km/h.

4.5 Road Wheels

- 4.5.1 RRVs must have a means of locking the road wheels in the straight-ahead position when on rail.

5 GAUGE

5.1 Travel Mode

- 5.1.1 Vehicles which require access to all parts of the infrastructure must be constructed within W492/39 or UK W6 gauge when in the travel mode, as set out in Appendix C.
- 5.1.2 Due to gauging problems with road wheels in some areas, the preference is for high-ride vehicles. Low-ride vehicles are not permitted to be used unless they meet the full requirements of this technical standard and have written permission to operate from IÉ or its representative.
- 5.1.3 Any parts of the vehicle that can exceed its normal swept envelope need to be adequately protected to ensure no inadvertent movement out of the gauge envelope. This protection must not require power to hold assemblies in position and must be fail-safe.
- 5.1.4 A vehicle which exceeds this gauge will need specific route approval by Iarnród Éireann.
- 5.1.5 No vehicle is permitted to travel under live OHLE unless it is within the permitted gauge as set out in 5.1.1 for the travel mode. The Engineering Acceptance Certificate must define if the vehicle can travel under live OHLE.
- 5.1.6 Vehicles permitted to travel under live OHLE must protect personnel with an all-metal roof.
- 5.1.7 All parts of the vehicle must be suitably earth bonded to the rail, maximum value 0.150 ohms.

5.2 Working Mode

- 5.2.1 A vehicle which has an increased working envelope over its travelling envelope must have the maximum amount of gauge exceedance detailed in its Engineering Acceptance Certificate. This information must be used in a site-specific method statement to decide if the vehicle is permitted to work with adjacent lines open to traffic and can clear any infrastructure features.
- 5.2.2 Any vehicle controls which move the vehicle out of its travel position must be protected against inadvertent operation. Additional movement-limiting devices may be required.
- 5.2.3 A vehicle which has an increased working envelope over its travelling envelope is not permitted to work under live OHLE without an approved vehicle height limiting device (HLD) being fitted and operational. The use of this HLD must ensure a minimum of 700 mm clearance from all live parts of OHLE. The Engineering Acceptance Certificate must define the minimum height of OHLE that permits work and any work must only be undertaken in accordance with a safe procedure.

- 5.2.4 Note: Other IÉ permits are required to work under OHLE.
- 5.2.5 Vehicles permitted to work under live OHLE must protect personnel with an all-metal roof.
- 5.2.6 All parts of the vehicle must be suitably earth bonded to the rail, maximum value 0.150 ohms.

6 BRAKING

6.1 Parking Brake

- 6.1.1 A parking brake must be fitted and must be capable of holding the fully laden vehicle on a 1-in-29 gradient.
- 6.1.2 If the parking brake of a trailing load cannot be applied from the cab of the towing vehicle, then the parking brakes which can be applied from the cab should hold the vehicle and trailer(s) on a 1-in-29 gradient while the operator leaves his cab to apply the parking brakes of the remaining vehicles.
- 6.1.3 To demonstrate the compliance of the parking brake, an alternative to a physical test on a 1-in-29 gradient is a horizontal pull-test of the vehicle that needs to be 6% of its GVW (gross vehicle weight) without any wheel revolving.

6.2 Service Brake

- 6.2.1 The service brake system on a vehicle can be one of the following:
 - A single braking system which is fail safe (i.e. loss of braking medium applies the brake) and capable of stopping the vehicle, and the vehicle with any trailing load, in the stopping distances shown in Table 2 below
 - Two independent braking systems which are capable of stopping the vehicle, and the vehicle with any trailing load, in the stopping distances shown in Table 2 (one of these systems may be the parking brake)

Table 2: Stopping Distances

Vehicle Speed (km/h)	Stopping Distance (m)
8	6
16	18
24	36
32	60

- 6.2.2 All braking tests should be conducted on level dry rail, and it is expected that 3 stops will be required in each condition to prove compliance.

6.3 Trailer Brakes

- 6.3.1 Trailers must be fitted with a spring-applied fail-safe parking brake. The operating medium can be air or hydraulic.
- 6.3.2 In the event of a trailer breakaway, the parking brake must be able to stop the vehicle within the distances shown in Table 2 above. If a hydraulic system is used, a 90° elbow must be used on the parking brake line next to the headstock and this should fail first in the event of a breakaway.
- 6.3.3 For the parking brake, hydraulic systems must use a 3/8 Faster VFB type connector which does not allow disconnection with the brakes released (i.e. brake control pressurised). The male connector must be fitted to the vehicle and the female connector to the trailer. A separate pressure relief device may be required, depending on the brake system design, to release any residual pressure.
- 6.3.4 Air systems must use a standard readily available type connector. The orientation of the connectors must be such that, when disconnected, the trailer brake system should vent to atmosphere and apply the brake.
- 6.3.5 All vehicles must display working pressure labels adjacent to all brake connection points to ensure compatibility between vehicles.

7 ELECTRICAL AND SAFETY

7.1 Electromagnetic Compatibility (EMC)

- 7.1.1 CE-marked base vehicles with electrical systems of 28 V do not require EMC testing as they will be compliant with EMC directives.
- 7.1.2 Any electrical components added to a vehicle must be assessed for compliance to the relevant IÉ EMC standard or the whole vehicle must be reassessed.

7.2 Safety Systems

- 7.2.1 **Movement Limiting Devices:** Any movement limiting device which is used to control vertical or horizontal movement must comply with this standard. It may be that a mechanical stop is not adequate for some applications as the inertia of the structure is too great. Both an electrical speed restrictor and a mechanical stop may be required.
- 7.2.2 **Mechanical Limiting Devices:** Mechanical limiting devices must be able to withstand all foreseeable forces and the design must be such that no single point failure will lead to an unsafe condition.
- 7.2.3 **Electrical Limiting Devices:** The design of electrical limiting devices should be such that no single point failure of the system will fail to an unsafe condition.
- 7.2.4 **Hydraulic Limiting Devices:** The design of hydraulic limiting devices should be such that no single point failure of the system will fail to an unsafe condition.

8 LABELS

8.1 Data Panel

8.1.1 As a minimum, a weatherproof, adhesive data panel must be displayed on both sides of a road/rail vehicle showing the following details:

- This vehicle is not permitted to work on or near the line when outside a possession
- Maximum travelling speed is XX km/h
- Maximum working speed is XX km/h
- Maximum speed through points and crossings is 8 km/h
- Maximum travelling cant is XXX mm
- Maximum working cant is XXX mm
- Maximum travelling gradient is 1-in-XX
- Maximum working gradient is 1-in-XX
- Minimum travelling radius is XX m
- Minimum working radius is XX m
- Trailer brake working pressures is XX bar
- Maximum non service braked towed load
- This vehicle can/cannot be used under live OHLE
- This vehicle can/cannot be used adjacent to a running line
- Vehicle identification number (996099 XXXX-X)
- Vehicle serial number
- Vehicle owner and telephone number

8.1.2 The panel must be red on a white background and clearly visible 2 m from the vehicle. The panel must fit a sheet of A4 paper, minimum size 230mm x 150mm. The panel must be a sticky label, not a paper print.

8.1.3 A sample data panel is shown in Appendix D.

8.2 Excavators

8.2.1 Excavators must display the following additional details:

- This vehicle is permitted to tow/propel XX tonnes
- SWL

8.3 Dumpers

8.3.1 Dumpers must display the following additional details:

- Tare weight is XX tonnes
- Laden weight is XX tonnes

- Max weight is XX tonnes

8.4 Mobile Elevating Work Platforms (MEWPs)

8.4.1 MEWPs should display the following additional label:

- MEWP EN280 identification plate showing maximum wind condition
- Max load in basket is XXX kg

8.5 Trailers

8.5.1 Trailers must display the following additional label:

- Tare weight is XX tonnes
- Laden weight is XX tonnes
- Max weight is XX tonnes

9 FIRE

9.1 General

9.1.1 Vehicles must be fitted with a fire extinguisher in all personnel areas. These must be capable of dealing with any types of fire likely to break out.

10 PERSONNEL AREAS

10.1 Requirements

10.1.1 Personnel travelling on RRVs must have a fixed seat position with suitable restraint. There must be adequate separation from tools and materials.

10.1.2 The seat must minimise the vibration to which the operator is subjected, and ergonomic non-slip handles and footsteps must be provided at all operating positions where required.

10.1.3 Any barriers provided to separate personnel from tools and materials must be capable of withstanding all likely load cases generated in worst-case conditions.

10.1.4 Personnel travelling in areas outside the operating cab must have a means of cutting drive traction, applying the brake and sounding the warning horn.

10.1.5 Access/egress from the vehicle must be from both sides of the vehicle or directly into the centre of the track. Access from only one side of the vehicle is not preferred but, where this occurs due to base vehicle design, additional door safety chains and labels are required to prevent inadvertent access to adjacent open tracks.

- 10.1.6 Operators must have a clear and unhindered view of all travel and work areas in both the forward and reverse directions. Where travel in the reverse direction does not have good visibility, reverse movements must be controlled by a ground operator, rear operator position or CCTV. Where CCTV is used, it must have adequate clarity to enable the driver/operator, when reversing, to see (from his or her own seat without slewing) any object at a distance of 1 metre away from the rear of the machine and 1 metre above ground level. This must take into account colour definition and all light conditions with regard to signs, features and signals.
- 10.1.7 If additional persons are carried remotely from the operating (driving) position, they must have a means of operating the warning horn and have communication with the driving position.
- 10.1.8 Where provision is made for more than one person to be carried in the driving cab, the following criteria must be met:
- a) Cab Access and Egress – A defined safe means to enter and leave the vehicle for all seating areas.
 - b) Seat Positioning –
 - A securely fitted operator seat to incorporate backrest and sufficient seat or bench width to accommodate an average-sized person.
 - When a second seat is fitted, it must be securely fixed and consist of a bucket seat which includes a backrest and, if possible, arm support. It should be of sufficient size to accommodate an average-sized person, and be fitted with suitable restraint.
 - c) Cab Dimensions – Cab size to be sufficient to accommodate the seat(s) as defined above.
- 10.1.9 The Engineering Acceptance Certificate for the vehicle must clearly state the permitted number of personnel to be carried in the vehicle cab.

11 VISIBILITY AND AUDIBILITY

11.1 Visibility

- 11.1.1 All vehicles must be predominantly yellow to one of the following colours: RAL 1003, RAL 1004, RAL 1018, RAL 1021, RAL 1023, BS 4800 Item 08E51, BR81 Item 202, NCS target value 1080 – Y10R or 1475 – Y11R and EC 222.69.79.
- 11.1.2 The yellow areas as a minimum should be the entire ends of the vehicle. Where the vehicle has a rotating superstructure, this must be entirely yellow except for access steps, locking devices and handrails which must be highlighted in the appropriate colour, preferably white.
- 11.1.3 All vehicles must be fitted with chassis-mounted marker lights that are capable of displaying white in the direction of travel and red to the rear. When stationary, marker lights should display red at both ends. Lights must auto-switch unless the switch is accessible in the cab of the vehicle. Vehicle Road Lights shall be inhibited while in rail mode.

- 11.1.4 Markers lights should be visible from 70 m during daylight hours.
- 11.1.5 Driving vehicles are also required to have additional headlights giving sufficient light for the operator to see any obstructions in the direction of travel. At night, this light should be capable of illuminating retro-reflective signs from a distance of 100 m and be sufficiently visible from the track to give 25 seconds warning of approach to ground workers.

11.2 Audibility

- 11.2.1 Driving vehicles should be equipped with a warning horn operable from the driving position and personnel areas to warn ground workers of vehicle movement.
- 11.2.2 This warning horn should be a minimum of 80 dB (A) and give a sound pressure increase of at least 10 dB over the working sound pressure level of the base machine.
- 11.2.3 The warning horn and base machine sound pressure measurements must be taken 1 m from the vehicle at 1.5 m height and at 4 equi-spaced positions around the vehicle.
- 11.2.4 A Reversing Alarm shall be fitted, with the ability to be switched off, if required.

12 TOWING AND PROPELLING

12.1 Requirements

- 12.1.1 Any vehicle which is permitted to tow or propel trailers must be limited to a maximum towing weight of 40 tonnes and two trailers, or a lower limit that the vehicle can safely haul and brake while meeting the braking requirements of this standard. In a situation where a parking brake system is used, the towing weight must be restricted to the gross vehicle weight of the towing vehicle.
- 12.1.2 Any vehicle that can tow or propel other vehicles must be fitted with a breakaway device to audibly warn the operator in the event of a breakaway. This device must be clearly audible to the vehicle operator.

13 VEHICLE SPECIFICS

13.1 Excavators

- 13.1.1 When used on rail, RRVs are likely to have two modes of operation: digging type duties and lifting duties.
- 13.1.2 Digging duties are conventional excavator type duties using buckets etc. It is normal not to use the RCI during these duties as the transient dynamic forces can be high and unpredictable.
- 13.1.3 Vehicles that are permitted to undertake lifting duties are required to have an RCI fitted and operational. An exception is allowed when the maximum SWL is less than 1 tonne in all positions while still maintaining a minimum of 600 kg on the lightest wheel.

- 13.1.4 If the activities involve the lifting of track panels using RRVs, then the requirements of departmental standard *I-PLM-5200 Tandem Lifting of Plain Track Panels* must be complied with.
- 13.1.5 The RCI, when fitted, must comply with EN 12077 – 2:1998 and the operator indicator with BS 7262.
- 13.1.6 When in lifting mode, the RCI must display a blue light which is visible from the outside of the vehicle.
- 13.1.7 The RCI must not allow any movement that would permit the vehicle and its load to go into a less safe state.
- 13.1.8 The RCI must control the SWL of the excavator so that, on all track conditions, the excavator cannot lift more than 67% of the point of zero rail wheel load on the lightest wheel with the axles unlocked and the vehicle undertaking a lift-and-carry duty. This can be increased to 90% when the vehicle has its axles locked and is static. It must give adequate audible warning to the operator of approach to this limit and inhibit further movement when the limit is reached.
- 13.1.9 From the testing and programming of the RCI, a set of duty charts should be produced showing the load limits for each lift point and in each position (see Appendix E). These duty charts should be used when planning lifts and method statements.
- 13.1.10 All load lifting points must be clearly marked with their SWL.
- 13.1.11 Any part of the hydraulic system which can fail and cause inadvertent movement of the vehicle or load must have burst protection.

13.2 Mobile Elevating Work Platforms (MEWPS)

- 13.2.1 When persons are lifted above ground level, the vehicle must meet the requirements of a valid EN280 certificate, except for wheel loads where a conflict occurs between this standard and EN280.

13.3 Attachments

- 13.3.1 Attachments can occur in many forms. It is difficult to cover all of them in this standard but they generally take power from a prime mover and are towed or lifted.
- 13.3.2 Attachments with three or more wheels must be classed as a trailer and meet the requirements of the relevant clauses of this standard.
- 13.3.3 All attachments to comply to IE standard and specification.
- 13.3.4 Attachments that are lifted by the prime mover must be used under the control of the RCI and any other safety systems, and shall not exceed the vehicle's capacity.
- 13.3.5 Where specified, attachments shall have a current certificate of engineering design approval, approved test and/or thorough examination by an approved body.
- 13.3.6 Attachments shall only be used and maintained in accordance with approved manufacturer's or approved engineering designer's safety and operating instructions.

- 13.3.7 The use of quick hitches will be in accordance with the manufacturer's operating and maintenance instructions and the rated lifting capacity must not be exceeded. Quick hitches must not be used with attachments that lift persons above ground level.

13.4 On/Off Tracking

- 13.4.1 Each RRV must have a documented procedure for on tracking and off tracking to ensure the following:
- It does not cause any damage to itself or the infrastructure while on tracking or off tracking
 - It does not get into an unstable condition
- 13.4.2 During the on and off tracking process, RRVs must at all times have at least one braked wheel (with the brakes applied during the road / rail transition phase), sufficient to hold the vehicle in contact with either the rail or ground on the most adverse gradient on which it can be on and off tracked. This state must be achieved by engineering means (for example an interlocking system) and not be reliant on procedural controls.
- 13.4.3 For high-ride vehicles where the rail gear movement is controlled from an operator position, the first rail axle lifting device or bogie must be fully deployed and locked in position before any subsequent rail axle lifting device or bogie is capable of being operated. There must also be a visual indication (i.e. an illuminated LED) at the operator position when axles are in the locked position.

13.5 Emergency Recovery

- 13.5.1 Each RRV must have a documented recovery system that can recover a vehicle into its travel position and allow it to be moved from the infrastructure within one hour.

14 MAINTENANCE PLANS

14.1 Principle

- 14.1.1 Each vehicle must have an approved maintenance plan that will ensure the vehicle and associated equipment is kept in compliance with this standard throughout its working life.

14.2 Documentation

- 14.2.1 Maintenance plans must be controlled documents kept within the operator's quality system and should include the following:
- A unique identifier, issue and/or revision and date
 - Approval and authorisation by appropriate persons
 - A numbered list of contents
 - Numbered sections to facilitate referencing, including job descriptions

- Pages identified so that it is obvious if any are missing or out of date
- 14.2.2 The plan must also undergo an annual review and indicate this review period. This review should consider the following:
- Vehicle performance
 - Change of use patterns
 - Manufacturer's/converter's advice
 - Directives from the infrastructure owner
- 14.2.3 Records must be maintained to demonstrate that the maintenance plan is being followed.

14.3 Contents of a Maintenance Plan

- 14.3.1 Each maintenance plan must include details on the following:
- Staff
 - Facilities
 - Base vehicle document
 - Frequency of maintenance
 - Job description
 - Component-specific requirements

14.4 Staff

- 14.4.1 The maintenance plan must contain a statement on the minimum level of staff competence engaged in RRV maintenance. The statement should include the following or similar clauses:
- In order to carry out this maintenance plan in a manner that will achieve the required safety and quality, the following minimum level of staff competence is required.
 - For all activities, the person leading the task must be able to follow and carry out the instruction detailed in this document.
- 14.4.2 All safety-critical work must be carried out by competent persons.
- 14.4.3 Staff undertaking this work must have been trained and hold the following competency:
- Approved for safety-critical work
 - Apprentice-trained craftsmen

14.5 Facilities

- 14.5.1 The maintenance plan must contain a statement defining the minimum facilities required to undertake RRV maintenance. For example, this could include:
- Clean, dry, covered accommodation for dealing with wheelsets, bearings, mechanical hydraulic and electrical components etc.

- Adequate illumination for inspection of components, bogies and underframes
- Cleaning facilities which will not cause damage to the components
- Handling facilities for removal and refitting of components such as rail bogies and engines
- Protection from the weather of vulnerable areas of the vehicles and their components
- Any specific requirements additional to those listed on the applicable job description
- A suitable length of straight level rail track for carrying out brake tests

14.6 Base Vehicle Document

- 14.6.1 If the maintenance requirements of the base vehicle are not included in the primary document, the relevant document(s) must be referenced.
- 14.6.2 In the case of a vehicle that is a conversion or derived from a non-rail vehicle, the manufacturer’s manual for the base vehicle should form part of the maintenance plan. If it is not practical to include the content of the document, it should be referenced in the maintenance plan.
- 14.6.3 Wherever possible, the location of the relevant sections of the base vehicle manual should be given in the appropriate parts of the primary document.

14.7 Maintenance Frequency

- 14.7.1 The maintenance plan must include a statement of the time period for each activity and a good method is the use of a code letter as shown in Table 3 below.

Table 3: Sample Period Codes

Exam Code	Calendar Time
A	Daily
B	Weekly
C	6-monthly
D	12-monthly

14.8 Job Description

- 14.8.1 Each maintenance plan must contain a job description for each component or system that requires attention. The examples below also include the frequency of maintenance.

Table 4: Sample Maintenance Checklist A

Component	Activity	Exam Code			
		A	B	C	D
Rail Marker Lights	Test	✓	✓	✓	✓
	Clean		✓	✓	✓

Component	Activity	Exam Code			
		A	B	C	D
Wipers	Test	✓	✓	✓	✓
Safety Labelling	Examine	✓	✓	✓	✓
Leaks of Inflammable Fluids	Beneath vehicle	✓			
	Each system		✓	✓	✓
Underframe and Structural Components	Check for obvious defects	✓	✓		
	Examine			✓	✓
Bogies and Rail Guidance Systems	Check for obvious defects	✓	✓		
	Examine			✓	✓
Yellow Panels	Clean		✓	✓	✓
	Check for deterioration			✓	✓
Brake Systems	Simple checks	✓	✓	✓	
	Stopping Distance Test				✓
Rail Wheels and Axles	Check for obvious defects	✓	✓		
	Examine and gauge			✓	✓
Rail Wheel Bearings	Check for rumble/play			✓	✓
Road Tyres on Friction Drive	Examine		✓	✓	✓
	Check pressure		✓	✓	✓
Rail Gear Check Valves	Test				✓

14.8.2 It is also good practice to further identify each element or job within each system as in the example below.

Table 5: Sample Maintenance Checklist B

Job	Activity	Exam Code			
		A	B	C	D

BRAKES

B01	Brakes – Check	*	*	*	
B06	Brake Fluid Level – Check		*	*	*
B07	Brake System Hoses and Pipework – Examine			*	*
B08	Air Tanks – Drain		*	*	*
B10	Parking Brake – Test				*
B11	Footbrake – Test				*
B12	Brake Linings – Check				*

CAB AND SUPERSTRUCTURE

C01	Windscreen Wipers – Check	*	*	*	*
C03	Cab Door Security – Check		*	*	*
C04	Access Panel Security - Check		*	*	*
C05	Yellow Paintwork – Check		*	*	*
C06	Safety Labels – Check		*	*	*

C11	Screen Wash Bottle – Refill		*	*	*
C15	Machine General Condition – Check	*			

WHEELS

W01	Road Wheel Nuts and Tyres – Check	*			
W02	Rail Wheels – Check	*	*		
W12	Rail Wheels and Bearings – Examine			*	*
W21	Road Wheels and Tyres – Examine		*	*	*
W22	Rail Wheels Back to Back – Gauge				*

14.9 Examples of Component-Specific Requirements

(a) Brakes

14.9.1 Each maintenance plan must detail brake test instructions. As a minimum, there must be an annual brake test of the vehicle and any trailing load in worst-case conditions. In addition to checking that the vehicle meets the stopping distance requirements, its performance should also be compared to previous results. If these differ significantly, further checks must be conducted.

14.9.2 Parking brakes can be tested by applying a pull force to the vehicle equivalent to 6% of its GVW. The vehicle should be able to hold this pull force without a wheel rotating.

(b) Rail Wheels

14.9.3 The maintenance plan must detail the maintenance requirements of rail wheels and detail the wear limits for that particular wheel type. These requirements should at least detail minimum wear diameters, maximum size of defects (including flats, cavities, cracks and false flanges) and back-to-back dimension.

(c) Road Wheels

14.9.4 When vehicles are used in high-ride mode with road wheels driving and braking the rail wheels, it is also important to define the maintenance requirements for the road tyres. This should include minimum wear limits, tyre type, tread pattern and interference with the rail wheel.

15 REVISION HISTORY

<i>Issue No and Date</i>	<i>Section No and Reason for Change</i>
1.0, 01/06/2009	Original issue
1.1, 12/08/2010	Section 1.2: removal of reference to standards not yet issued Review Section removed (previously Section 15)

<p>1.2, 30/06/2011</p>	<p>Revised operative date 30th June 2011 - all double line routes or greater January 2013 - all other single routes Change to the wording in clause 13.2.1</p>
<p>1.3, XX/XX/2012</p>	<p>The term Acceptance Engineering Certificate replaces certificate of competence Change to the wording in clauses: 10.1.7, 11.1.1, 11.1.2, 12.1.1 New Clauses: 1.2.7, 8.1.2, 10.1.8 and 10.1.9; 13.4.2, 13.4.3 and 14.2.3 New Section: 13.5 (previously part of 13.4) New Appendix A New Appendix D</p>

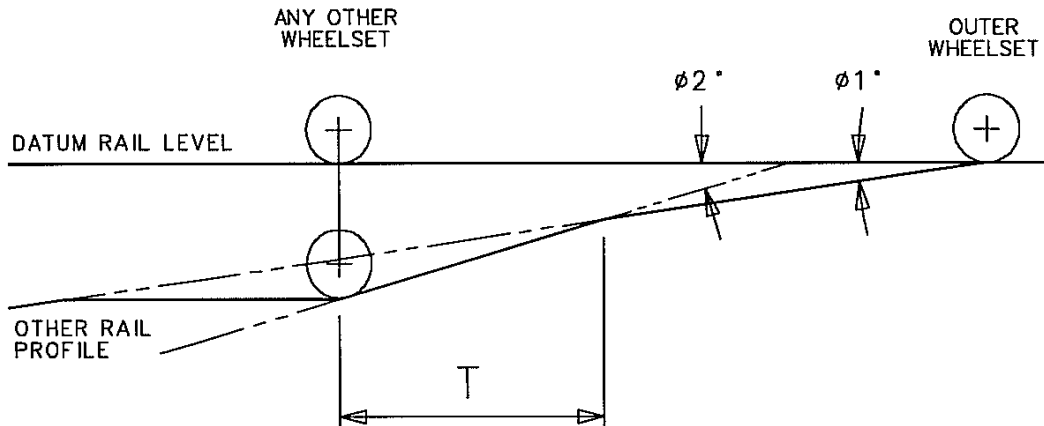
APPENDIX A EXPIRY DATE LABEL FOR ENGINEERING CERTIFICATE OF ACCEPTANCE

A label showing the expiry date for the Engineering Certificate of Acceptance is required on both sides of an Iarnród Éireann certified road/rail vehicle, adjacent to the data panel.

The label below is a sample given for guidance. Please refer to Section 1.2 of this document.



APPENDIX B TRACK TWIST MEASUREMENTS



- f1 = Long wave length track twist angle between running rails = 1:300
- f2 = Short wavelength track twist angle between running rails = 1:150
- T = Semi-span of short wavelength discontinuity - 6m

The short wavelength discontinuity can occur at any position relative to the vehicle as the vehicle moves over it.

Track twist is where one wheel is effectively in a dip, as shown in the diagram above. Most possession-only rail vehicles have a wheel base of less than 6 m, in which case the amount of the dip is a simple calculation:

$$\text{dip (mm)} = \text{wheelbase (mm)} / 150$$

Where the vehicles has a wheel base greater than 6 m the amount of the dip is calculated:

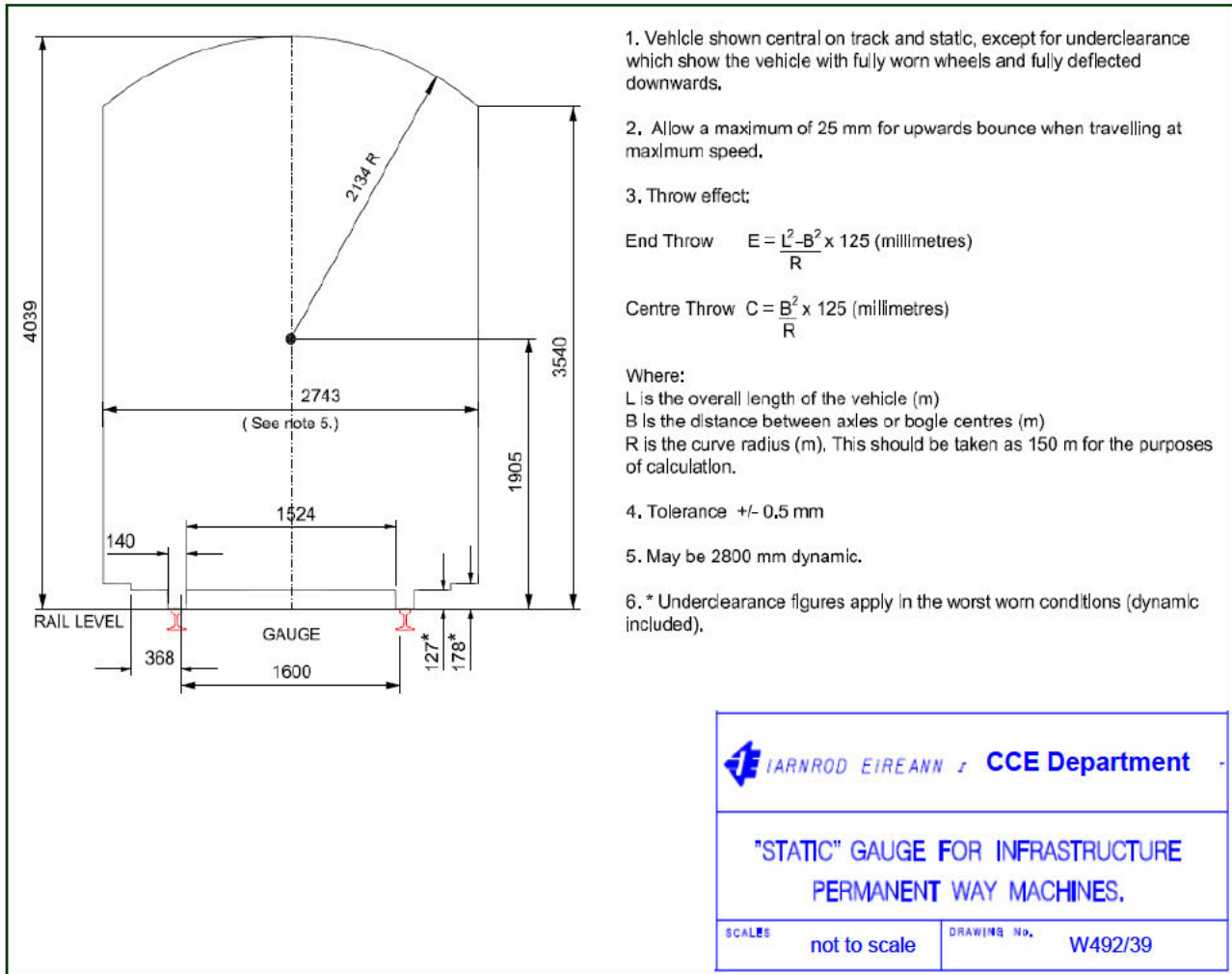
$$\text{dip (mm)} = (\text{wheelbase (mm)} - 6000) / 300 + 40$$

The above measurements check the ability of a road/rail vehicle to negotiate a dipped rail joint while on a track twist without unloading the rail wheels enough to cause flange climb and derailment. This is simulated by putting the rail wheels on load cells to first measure the level rail wheel loads and then packing each single rail wheel to simulate the above track twist and dipped joint (lifting the rail wheels has the same effect on the chassis twist as lowering them).

No vehicle wheel load should reduce by more than 50% of its level value (60% for vehicles with bogies).

APPENDIX C TRAVEL MODE GAUGE

All road/rail vehicles, when in travel mode, must not exceed the outer gauge envelope as shown in the gauge diagram below.

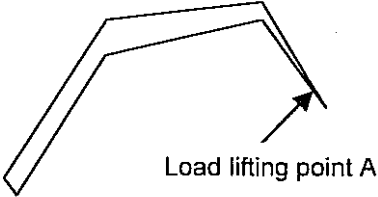


APPENDIX D SAMPLE DATA PANEL

A data panel must be displayed on both sides of each road/rail vehicle. The panel below is a sample given for guidance. Please refer to Section 8 of this document for exact requirements.

99 60 99xx XXX-X			
Vehicle Owner: XXXXXXXX		Contact Telephone Number: XXXXXXXXXXXXX	
Maximum travelling speed	32 km/h	Can be used under LIVE overhead lines	NO
Maximum working speed	6 km/h	May be used adjacent to running line	NO
Maximum travelling through S&C	8 km/h	Trailer brake working pressure	N/A
Maximum travelling cant	165mm	Maximum non service braked towed load	N/A
Maximum working cant	165mm		
Maximum travelling gradient	1:29		
Maximum working gradient	1:29		
Minimum travelling radius	80m	Serial: YV2E4CCD01B290388	
Minimum working radius	80m		

APPENDIX E DUTY CHARTS OF LIMIT LOADS

RAILWAY PLANNERS LIFTING DUTY CHART FOR VEHICLE XXXXX XXXXXX-X											
First of class number XXXXX XXXXXX-X Date of test XX-XX-XXXX											
0 – 50 mm cant, static mode, 10° - 45°, 315° - 350°											
											
		Radius (m)									
		1	2	3	4	5	6	7	8	9	10
		Maximum lift (t)									
Height (m)	7		5	4.5	4	4	2				
	6		5	4.5	4.5	4	3	2			
	5		6	5.5	5	5	4	3.5	2		
	4	5	8	6.5	6	5.5	5	4.5	3		
	3	5	9	8	7	6	6	5.5	3		
	2	4.5	9	9	9	7	6.5	6	4	1	0.5
	1		9	9	9	9	7	6	4	1	0.5
	0		9	9	9	8	6.5	5.5	2	0.5	
	-1		7	9	7	7	6	4	1		
	-2			7	4	5	3	1			
-3			4.5	2.5	2						
ARL											

The above chart is an example of a typical lifting duty chart for a road/rail vehicle (RRV). It shows a vehicle’s SWL (maximum lift) for a particular height and radius of the RRV lift point. Each RRV will have several sets of duty charts for a particular slew sector or cant duty.

These duty charts should be used by lift planners and operators to ensure an RRV is capable of lifting the planned load at the required height or radius.



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Prepared by	[REDACTED]
Checked by	[REDACTED]
Approved by	[REDACTED]

CCE DEPARTMENT

QUALITY MANAGEMENT STANDARD

CCE-QMS-008

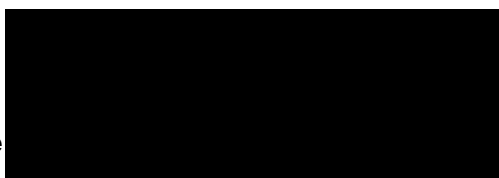
CCE Environmental Management System

This CCE Department Quality Standard sets out the requirements for an Environmental Management System within the Department of the Chief Civil Engineer.

This CCE Department Quality Document is mandatory.

The principles in this Quality Standard are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department.

Signe



Chief Civil Engineer

This standard, along with all CCE Department Standards, is available from the CCE Website. Electronic copies of the standards are controlled and live. Holders of printed copies of the standard are responsible themselves for ensuring that they have the most up to date version as appropriate.

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1 Policy, Scope and Principles

1.1 Policy

- 1.1.1 The system of standards, procedures, responsibilities and other EMS documents described in this Department Standard, CCE-QMS-018, referred to herein as the “CCE EMS”, shall be used to support the Infrastructure Manager Environmental Policy, comply with environmental legislation and meet the requirements of ISO 14001 “Environmental System Requirements” outlined within IM-QMS-008 “Infrastructure Manager Environmental Management System.
- 1.1.2 The IM Environmental Policy is included as Appendix 1 of this document and is available on the IM and CCE websites.
- 1.1.3 The IM Environmental Policy shall be displayed at IM locations.

1.2 Scope

- 1.2.1 This Environmental Management System covers only the activities in the CCE Department.
- 1.2.2 The CCE EMS describes the processes and accountabilities of employees that ensure environmental compliance. This CCE EMS also determines the sequence and interaction of such processes.
- 1.2.3 This EMS is supported by CCE Quality Documentation including specific CCE Quality Management Standards, an CCE Safety Management System supported by CCE Safety Documentation, and CCE and SET Technical Management Systems supported by CCE and SET Technical Documentation.

1.3 Principles

- 1.3.1 The CCE EMS forms an intrinsic part of the overall CCE Quality Management System (QMS), as set out in CCE-QMS-001, and is designed to be compatible with the other elements of the CCE QMS and IM-QMS-001 “Infrastructure Manager Quality Management System”.
- 1.3.2 The Standards and Operating Procedures for the CCE EMS are written in conformance with ISO 14001 “Environmental System Requirements”. Compliance of this CCE EMS with ISO 14001 is provided in Appendix 2.
- 1.3.3 Accountable Line Managers shall consider environmental aspects when agreeing their annual departmental budgets to ensure the availability of the required resources, personnel, appropriate equipment and adequate time to conform to requirements of this CCE EMS.
- 1.3.4 Adherence to the requirements within this CCE EMS is demonstrated by Environmental Aspects Registers and through external and internal auditing.
- 1.3.5 Safety definitions that apply to all standards are set out in CCE-SMS-001 CCE Safety Management System.
- 1.3.6 Terminology such as “his” or “manager” in this Standard is not gender specific.

2 Definitions

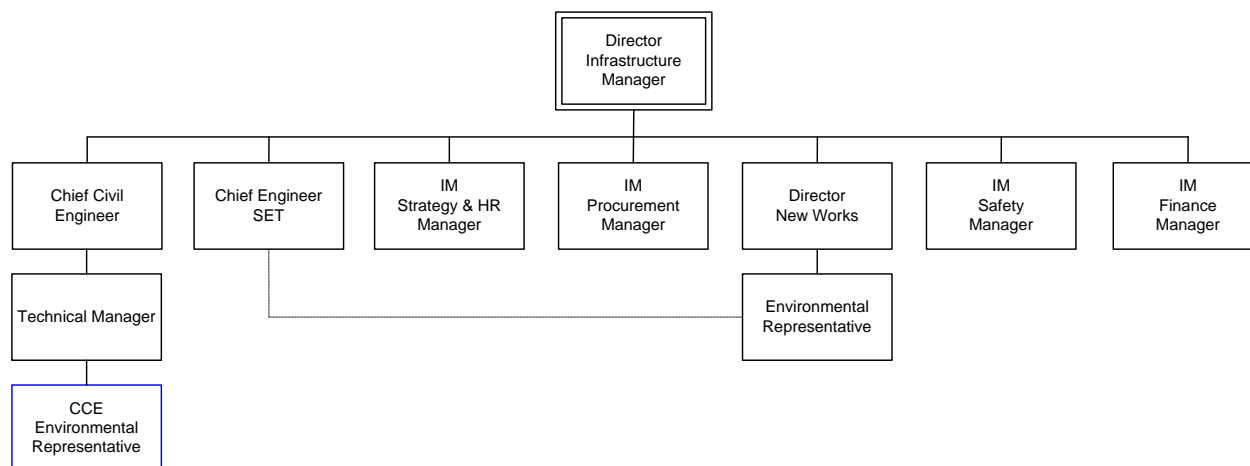
2.1 Standard-Specific Definitions

- 2.1.1 The full list of CCE Quality Definitions is shown in CCE-QMS-001 CCE Quality Management system. The following definitions are specific to this CCE Standard.
- 2.1.2 **Appropriate Assessment** - An ecological assessment of plans or projects which may have a direct or indirect effect on a Natura 2000/European Designated Sites. The requirement to undertake an Appropriate Assessment is provided for under Article 6 part 3 and 4 of the EC Habitats Directive.
- 2.1.3 **Environmental Aspects** – The elements of an organisation’s activities or products or services that can interact with the environment (air, water, soil, etc.).
- 2.1.4 **Environmental Aspects Register** – A formal register of the Location’s Environmental Aspects, activities relating to those aspects and the environmental risks they pose.
- 2.1.5 **Environmental Representative** – A person designated to manage environmental issues on behalf on IM Departments.
- 2.1.6 **EPA** – Environmental Protection Agency.
- 2.1.7 **NPWS** – National Parks & Wildlife Service.
- 2.1.8 **Significant Environmental Issue** – An event or situation which has a direct effect on the environment and can create a potential liability for the Company (e.g. the migration of a pollutant from Iamnród Éireann property).
- 2.1.9 **Significant Environmental Task** – A task involving carrying out works which could cause a significant environmental impact (e.g. fuel dispensing, use of chemicals near a watercourse).

3 Accountabilities and Responsibilities

The full listing of CCE Management Accountabilities and Responsibilities is shown in CCE-QMS-001 CCE Quality Management System. The following accountabilities and responsibilities are specific to this CCE Standard.

3.1 Environmental Technical Support IM & CCE



3.2 Chief Civil Engineer (CCE)

3.2.1 The CCE is the owner of this Standard and is Accountable for the management of the Environmental Aspects of the CCE Department and for revising, as required, the processes as described in this Standard.

3.2.1.1 This accountability for environmental management includes:

3.2.1.2 Accountability, as the Head of the CCE Department, for ensuring that the CCE Department's EMS is implemented and that the Accountable Line Managers are managing their activities accordingly.

3.2.1.3 Setting and reviewing the CCE Environmental Objectives with the Environmental Representative annually.

3.2.1.4 Ensuring promotion of the IM Environmental Policy, CCE Environmental Objectives and the CCE EMS throughout the CCE Department and ensuring its adoption by the CCE Locations.

3.2.1.5 Reporting periodically to the Director IM on the environmental performance of the CCE Department.

3.2.1.6 Managing all the CCE Department's resources, facilities and workplaces in such a manner as to minimise the impact on the environment and comply with relevant environmental legislation.

3.2.1.7 Ensuring that all the maintenance activities in CCE are delivered in accordance with the CCE EMS.

3.2.1.8 Measuring and reviewing the environmental performance of the different teams in the CCE Department, through the CCE Quality Review process, against the Environmental Objectives.

3.2.1.9 Promoting continuous improvement of CCE activities to enhance environmental compliance of the CCE Department.

3.3 Accountable Line Managers

3.3.1 CCE Infrastructure Managers, Technical Manager, Buildings and Facilities Manager, Senior Track & Structures Engineers, Principal Engineer Structures, Principal Engineers Track, Manager IAMS, Infrastructure Production Plan Manager, Regional Managers and Supervisors

3.3.2 Every manager of a team, as listed above in 3.3.1, is Accountable for environmental management of all the activities associated with his team.

3.3.3 This environmental accountability includes:

3.3.3.1 Setting out his budget to ensure compliance with this CCE EMS and facilitate management of his CCE Location's Environmental Aspect Register.

- 3.3.3.2 Ensuring compliance with the CCE EMS within his Location.
- 3.3.3.3 Performing a regular review of the Environmental Aspects Register with the Environmental Representative.
- 3.3.3.4 Ensuring that the employees assigned to Significant Environmental Tasks within the CCE Department are briefed on those tasks and trained where required.
- 3.3.3.5 Ensuring that consideration is given to the environmental impact of his work proposals and that appropriate mitigation options are taken.
- 3.3.3.6 Facilitating Environmental Auditing as agreed with the Environmental Representative.
- 3.3.3.7 Ensuring that the Environmental Representative is advised, in a timely fashion, of planned works that could have a significant environmental impact.
- 3.3.3.8 Ensuring that the Environmental Representative is advised of any significant environmental issues or events within his Department, and complaints / issues raised from external parties as they occur.

3.4 Environmental Representative

- 3.4.1 The Environmental Representative is designated by the CCE to manage environmental issues on behalf of the CCE Department
- 3.4.2 This environmental accountability in relation to the Department includes:
 - 3.4.2.1 Providing specialist support on environmental legislation and compliance as well as technical advice on Environmental Aspects to the CCE Departments.
- 3.4.3 Preparing and agreeing the Departmental Environmental Objectives annually with the CCE.
- 3.4.4 Preparing Environmental Aspects Registers to identify, record and rate environmental risks, and to set out proposed mitigations, targets and action plans.
 - 3.4.4.1 Responsibility for the creation and maintenance of the Environmental Aspects register.
 - 3.4.4.2 Reviewing the Environmental Aspects register with the Accountable Line Manager.
 - 3.4.4.3 Preparing Operating Procedures in relation to Significant Environmental Tasks.
 - 3.4.4.4 Liaising with and preparing submissions to statutory bodies on behalf of the CCE Department.
 - 3.4.4.5 Researching and investigating environmental queries.
 - 3.4.4.6 Liaising with the CCE Quality Managers/Quality Representatives to schedule environmental audits.
 - 3.4.4.7 Scheduling, planning and conducting Environmental audits.
 - 3.4.4.8 Liaising with the CCE Quality Manager to completing auditing requirements for ISO certification.
 - 3.4.4.9 Ensuring compliance with and integration of the CCE EMS and CCE QMS.
 - 3.4.4.10 Presenting an updated Environmental Period Review Report at the CCE Period Reviews which illustrates progress on mitigations.

3.5 RU Environmental Officer

- 3.5.1 The RU Environmental Officer is responsible for maintaining the IE register of environmental legislation.

3.6 Employees

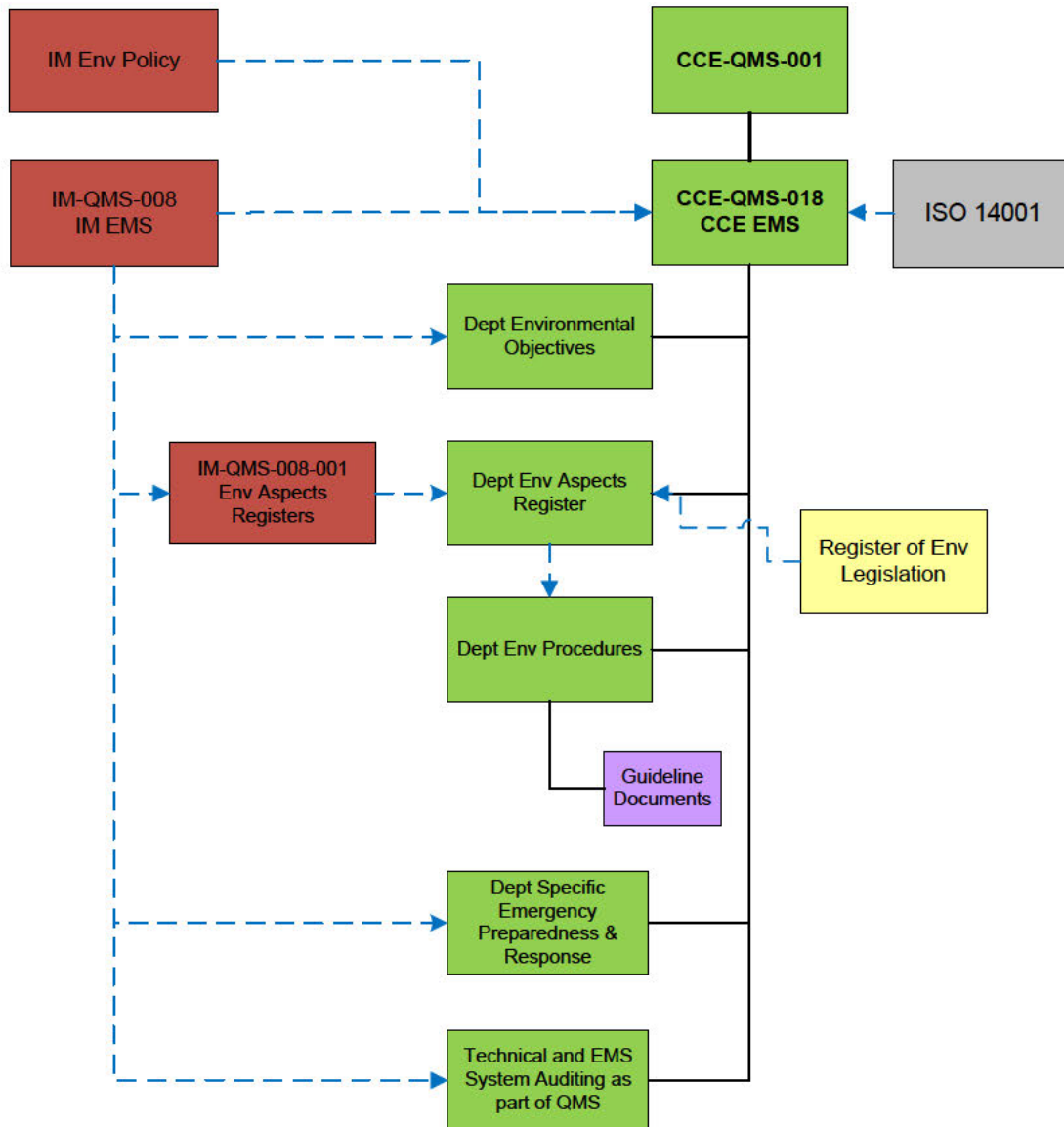
- 3.6.1 Every employee has a responsibility to the Environment.
- 3.6.2 Every employee is Accountable for complying with all applicable environmental legislation (available through the CCE Website) and by acting in accordance with this standard.

3.7 Further Accountabilities and Responsibilities

- 3.7.1 Section 4, Implementation, of this standard describes further the specific accountabilities, responsibilities and duties required under this standard.
- 3.7.2 Staff must ensure that any difficulties with the implementation of this standard are brought to the attention of the CCE Environmental Representative or the CCE Quality Manager.

4 Implementation

4.1 IM and CCE Environmental Management Systems



4.1.1 What is Environmental Management?

4.1.2 Environmental management is the process of identifying and managing the effect our business has on the environment.

4.1.3 The IM EMS is supported by and integrated with the IM quality Management System (QMS).

4.1.4 The main elements of the IM EMS are;

- Environmental Objectives
- Environmental Aspects Register
- Register of Environmental Legislation
- Emergency Preparedness and Response
- Environmental Procedures
- Guideline Documents
- External Communications Register (ECR)

5 Planning

5.1 Environmental Objectives

- 5.1.1 The CCE Environmental Objectives are prepared by the Environmental Representative and reviewed and approved by the CCE annually.
- 5.1.2 The Environmental Objectives are monitored and reported on a periodic basis.
- 5.1.3 Environmental audits assist in the identification of continuous improvements and the identification of environmental objectives for the following year.

5.2 Environmental Aspects Register

- 5.2.1 The aim of the Environmental Aspects Register is to achieve the Department's Environmental Objectives as well as improve the environmental performance of a particular IÉ Location.
- 5.2.2 The Environmental Aspects Register is a tool to:
- 5.2.3 Identify the CCE Location's interactions with the various environmental aspects (air, water, soil, etc.);
- 5.2.4 Identify impacts and risks associated with these interactions and their significance;
- 5.2.5 Determine the appropriate control measures to mitigate risks; and
- 5.2.6 Set targets to ensure the completion of proposed mitigation measures.
- 5.2.7 Environmental Aspects Registers will adhere to relevant environmental legislation as listed on the Company's Register of Environmental Legislation, available through the CCE Website.
- 5.2.8 The Environmental Aspects Register per CCE Location will be kept as a live document on the CCE Website.
- 5.2.9 Environmental Aspects Registers shall conform to requirements outlined in IM-QMS-008-001, "Environmental Aspects Registers".
- 5.2.10 The Environmental Representative will update the CCE Locations' Environmental Aspects Registers with the Accountable Line Manager as required.
- 5.2.11 The CCE Locations' Environmental Aspects Register shall be reviewed by the Environmental Representative and the CCE Technical Manager at the Technical Review Meeting.
- 5.2.12 The Environmental Representative shall support the Accountable Line Manager in the interpretation of the Environmental Aspects Register ensuring that the proposed actions are appropriate.

5.3 Register of Environmental Legislation

- 5.3.1 A live register of environmental legislation that applies to Iarnród Éireann operations is available to assigned IÉ staff on an online system called "Pegasus".
- 5.3.2 The IÉ Energy & Environmental Unit shall make available on the IM Website a summary list of environmental legislation from Pegasus. This list shall chart the various departments within Iarnród Éireann and indicate which legislative document directly or indirectly applies to a particular department.
- 5.3.3 The IÉ Energy & Environmental Unit shall take note of the electronic updates sent by Pegasus and update the compiled list of environmental legislation on the IM Website every 6 months (January and July each year).

6 Implementation and Operation

6.1 Competency, Training and Awareness

- 6.1.1 CCE Environmental Representatives shall be trained and competent in the field of Environmental Management.
- 6.1.2 The Environmental Representative shall inform the Accountable Line Manager when there is a reoccurring Significant Environmental Task within the Department.
- 6.1.3 The Accountable Line Manager with the assistance of the Environmental Representative shall ensure a documented procedure is created to address the Significant Environmental Task.
- 6.1.4 The Accountable Line Manager must ensure staff members who are implementing these procedures, which have a significant environmental impact, are briefed on the environmental implications of those tasks and trained where required.

6.2 Communication

6.2.1 Internal Communication

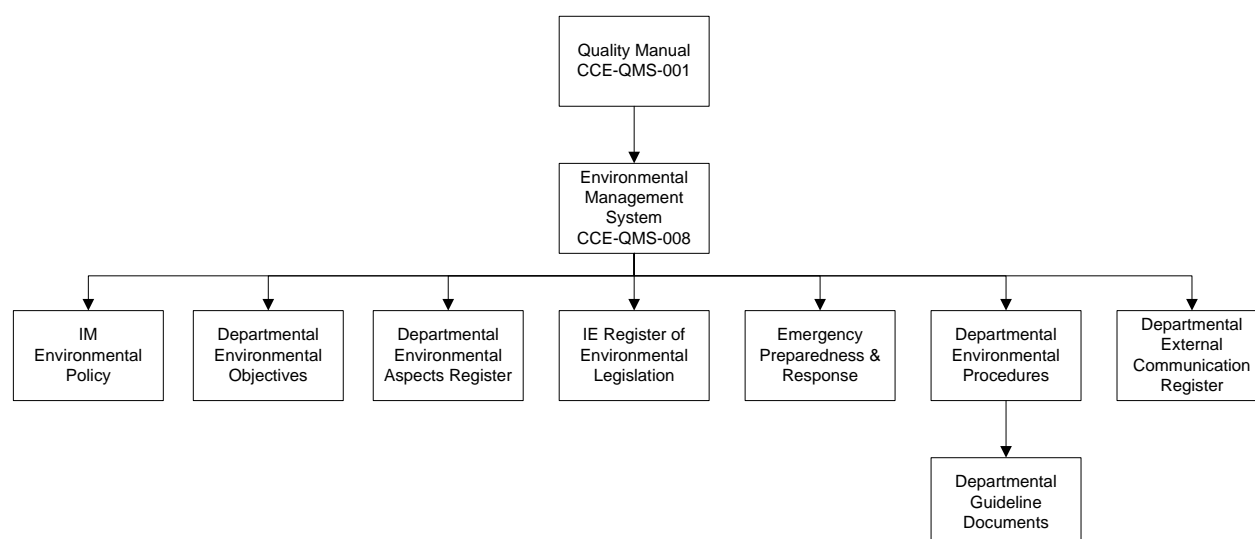
- 6.2.1.1 Environmental Standards, Operating Procedures and guidance documents are available to all staff on the CCE website.
- 6.2.1.2 Briefing of EMS documentation shall be done in accordance with IM-SMS-003, "Briefings".

6.2.2 External Communication

- 6.2.2.1 Accountable Line Managers and the Environmental Representative shall maintain an external communication register (ECR) with the purpose of recording correspondence with external bodies and other third parties in relation to environmental issues, queries or complaints.
- 6.2.2.2 The external communications register will also assign actions and planned completion dates against each item of correspondence.
- 6.2.2.3 The external communications register shall be made available on the CCE website and audited in conformance with the IM-QMS-007 "Quality Audits".

6.3 Documentation

- 6.3.1 The CCE EMS includes the following documentation;



6.4 Control of Documents & Records

- 6.4.1 The control of documentation for the CCE EMS shall comply with CCE-QMS-002 Document Management available on CCE Website.
- 6.4.2 All CCE EMS documentation (see section 6.3.1) shall be made available on the CCE Website.

6.5 Emergency Preparedness and Response

- 6.5.1 For major emergencies relating to train operations (e.g. derailments, severe impacts), please refer to the IM's Emergency Response Handbook (the Red Book), which includes information regarding environmental protection.
- 6.5.2 Environmental considerations shall be incorporated in CCE Department's specific localised emergency response plans and project method statements. The Environmental Representative will provide technical advice to the Department's Safety Team in reviewing this documentation.

6.6 CCE Department Environmental Operating Procedures

- 6.6.1 Management of CCE Environmental Aspects and the achievement of the CCE Environmental Objectives and related targets are accomplished through compliance with defined CCE Environmental Operating Procedures.
- 6.6.2 The Accountable Line Manager shall be advised by the Environmental Executive if a particular Environmental Operating Procedure is required for a Significant Environmental Task.
- 6.6.3 The Environmental Executive will prepare the Environmental Operating Procedure for approval by the Accountable Line Manager.
- 6.6.4 The Accountable Line Manager shall approve and brief the Environmental Operating Procedure to his staff in accordance with CCE-QMS-003 "Briefings".

6.7 Guideline Documents

- 6.7.1 These are documents which provide information, advice and reference material on particular environmental concerns such as:
- 6.7.2 *Protected Species Guidelines* – descriptions of protected species such as bats, badgers and otters; how to build bat boxes; advice on moving badger setts; etc.
- 6.7.3 *Litter Management and Guideline Document* – implementation of formulated plans and programmes which manage incidents of litter along the rail network.
- 6.7.4 CCE Guideline documents are available on the CCE Website.

7 Checking

7.1 Monitoring and Measuring

- 7.1.1 Accountable Line Managers are Accountable for implementing and monitoring mitigation measures at his Location to correct / prevent environmental issues and improve Environmental Performance. These mitigation measures are and their progress are recorded on the Environmental Aspects Register.
- 7.1.2 The CCE Locations' Environmental Period Review Report shall be presented quarterly at CCE Period Review Meeting to the Head of Department.

7.2 Auditing and Compliance

- 7.2.1 Technical Environmental Audits per location will be conducted at a minimum annually by the Environmental Representative.
- 7.2.2 Auditing of an IM EMS system shall be in compliance with the IM-QMS-007 "Quality Audits".

7.3 Corrective / Preventive Actions & Continuous Improvement

- 7.3.1 Corrective / preventive actions and continuous improvements are tracked and monitored on the Environmental Aspects Register as mitigation and control measures.
- 7.3.2 The Environmental Representative will provide specialist advice and support to the Accountable Line Managers on proposing mitigation and control measures.
- 7.3.3 The Accountable Line Manager will agree the final set of mitigation and control measures to address nonconformities and target completion dates with the Environmental Representative.
- 7.3.4 The Accountable Line Manager shall ensure target dates are achieved and action items are closed out on the Environmental Aspects Register.
- 7.3.5 The Accountable Line Manager shall initiate continuous improvement projects arising from reviews of the Environmental Aspects Register, Annual Environmental Reports and ISO compliance audits.

8 Environmental Management Review

- 8.1.1 The CCE Departments shall conduct an “Environmental Management Review” of the CCE EMS to ensure its continuing suitability, adequacy and effectiveness.
- 8.1.2 The preparation for the “Environmental Management Reviews” are co-ordinated by the Quality Managers/Quality Representatives and Environmental Representatives who are responsible for preparing the presentations and for recording and following-up on the actions as in the minutes.
- 8.1.3 Every Accountable Line Manager is Accountable for closing out any actions that may arise from this review.
- 8.1.4 The input to the “Environmental Management Review” shall include:
- Results of Audits
 - Communications from external parties
 - The extent to which objectives and targets have been met
 - Status of preventive and corrective actions
 - Follow up actions from previous management reviews
 - Changes that could affect the EMS
 - Recommendations for improvement
- 8.1.5 Outputs from the “Environmental Management Review” shall include:
- Improvement of the effectiveness of the EMS and its processes
 - Resource needs
- 8.1.6 Recommendations for a change to any IM-QMS standards or OP’s must be forwarded to the QMS Review Group.

End of Standard

Appendix 1 Infrastructure Manager Environmental Policy



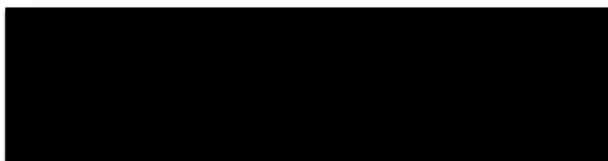
INFRASTRUCTURE MANAGER ENVIRONMENTAL POLICY

In IM Department, we recognise that our activities have an impact on the environment. It is our responsibility to minimise, as far as is practicable, our impact on the environment and to continuously explore ways to improve our efficiency and reduce our consumption of natural resources.

The IM Department commits to:

- Conduct our activities, and those undertaken on our behalf, in an environmentally responsible manner and in compliance with all applicable legislation, Company Policy and Standards
- Consider environmental implications in our planning and decision-making
- Procure vehicles, materials and supplies that meet or exceed applicable legislation and EU Directives in order to support our objective to minimise our impact on the environment
- Minimise pollution risks and reduce emissions as far as is practicable
- Record and respond swiftly to all complaints on environmental matters
- Minimise the generation of all wastes as far as practicable and maximise the volume of waste that is recycled or reused
- Act responsibly in our use of natural resources.
- Continuously explore new ways to optimise our energy efficiency
- Review our Environmental Management System annually, both system and results, with a view to improving our future performance
- Inform our employees, suppliers and contractors of our Environmental Policy and provide the necessary training and support required to meet our environmental objectives
- Communicate our environmental status and objectives to our employees on a regular basis

The IM Department commits its employees to actively support this Policy and to implement it at all levels throughout the organisation.



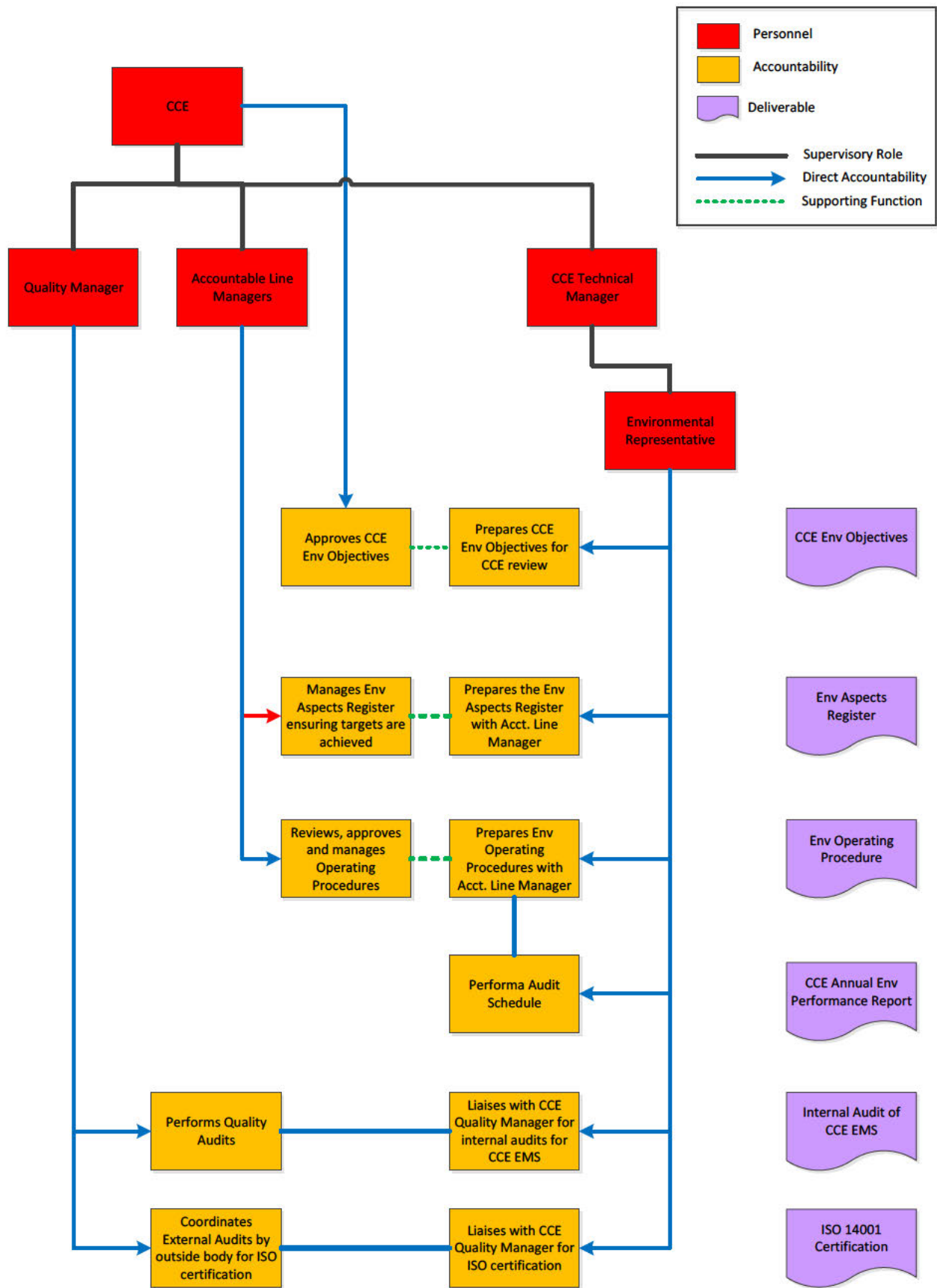
Director Infrastructure Manager

Issue 1 – March 2013

Appendix 2 ISO 14001 Compliance Matrix for IM EMS

ISO14001		IM-QMS-008 Environmental Management System which satisfies ISO14001 requirements
Section	Description	
	Introduction	
1	Scope	Section 1.2
2	Normative references	N/A
3	Terms and definitions	Sections 2, IM-QMS-001
4	Environmental Management system requirements	
4.1	General requirements	Section 1
4.2	Environmental policy	Appendix 1
4.3	Planning	
4.3.1	Environmental aspects	Section 5.2
4.3.2	Legal and other requirements	Section 5.3
4.3.3	Objectives, targets and programme(s)	Section 5.1
4.4	Implementation and operation	
4.4.1	Resources, roles, responsibilities and authority	Sections 3, IM-QMS-001
4.4.2	Competence, training and awareness	Section 6.1
4.4.3	Communication	Section 6.2
4.4.4	Documentation	Section 6.3
4.4.5	Control of documents	Sections 6.4, IM-QMS-002
4.4.6	Operational control	Section 6.6
4.4.7	Emergency preparedness and response	Section 6.5
4.5	Checking	
4.5.1	Monitoring and measuring	Section 7.1
4.5.2	Evaluation of compliance	Section 7.2
4.5.3	Nonconformity, corrective action and preventive action	Section 7.3
4.5.4	Control of records	Sections 6.4, IM-QMS-002
4.5.5	Internal audit	Sections 7.2, IM-QMS-007
4.6	Management review	Section 8

Appendix 3 CCE EMS Accountabilities Organisational Chart



Briefing Note

<p>Purpose: This standard outlines the accountabilities, responsibilities and processes applicable to the CCE Environmental Management System (EMS) ensuring compliance with environmental legislation and the requirements of ISO 14001:2004 “Environmental Management System.</p>	<p>Scope: This Environmental Management System covers only the activities in the CCE Department.</p>
<p>What’s New / What’s Changed & Why?</p> <p>This document is the second issue of the Environmental Management System (EMS) for the CCE Department and forms part of the CCE Quality Management System.</p> <p>CCE QMS 008 “Environmental Management System” describes the following:</p> <ul style="list-style-type: none"> • The Policy, Scope & Principals of the CCE EMS. • The Definitions of words and phrases used within the CCE EMS. • The Environmental Accountabilities and Responsibilities of personnel in the CCE Department. • What is the EMS and what are its components? • How the EMS is implimented and operated? • How the EMS is monitored, audited and improved? <p>This Standard also includes;</p> <ul style="list-style-type: none"> • The IM Environmental Policy • How this Standard relates to ISO 14001 <p>Version 2.0 reflects the change in structure arising from the RU/IM split and specifically how the CCE EMS related to ISO14001.</p>	
<p>Target Audience:</p> <p>CCE Staff should be briefed in full on CCE EMS to the level of PWI.</p>	
<p>Type of Briefing Required?</p> <p>Full Briefing <u> X </u> <i>Briefing of the OP is required in full to Target Audience.</i></p> <p>Content Changes Briefing <u> </u> <i>Brief Target Audience on revisions to the OP.</i></p> <p>Awareness Briefing <u> </u> <i>Brief Target Audience of the existence of the OP .</i></p>	
<p>Note:</p> <p>Advise target audience to read thoroughly any sections that affect them directly.</p> <p>Be more specific and expand on sections as appropriate for the audience.</p> <p>Encourage feedback. If any feedback, Briefer should forward details to the Quality Manager / Representative.</p>	

9 Revision History

Version No and Date	Section No and Reason for Change
2.0 30.01.2014	Structure of Document changed to reflect components of ISO14001
1.0 01.05.2013	Structure of document changed to reflect RU/IM split within Organisation.

End of Standard

Reference No.	CCE-TMS-SPN-037
Version	1.4
Operative Date	30/05/2019
Status	Live
Prepared by	[REDACTED]
Checked by	[REDACTED]
Approved by	[REDACTED]

CCE DEPARTMENT

TECHNICAL SPECIFICATION

CCE-TMS-SPN-037

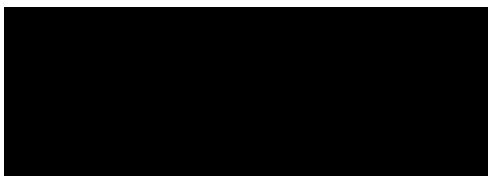
Fencing Specification

This CCE Department Technical Document sets out the requirements for the provision of fencing on the Iarnród Éireann network.

This CCE Department Technical Document is mandatory.

The principles in this Technical Specification are approved by the Head of Department and therefore constitute mandatory standard practices, which apply throughout the CCE Department.

Signed



Chief Civil Engineer

This technical specification, along with all CCE Department Technical Documents, is available on the CCE Website. Electronic copies of the documents are controlled and live. Holders of printed copies of the document are responsible themselves for ensuring that they have the most up to date version as appropriate.

This is a Controlled Document, as presented on-line.

**It is Uncontrolled if printed, unless endorsed
on this page with the approved and completed
"Controlled Copy" label/stamp.**

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1 Scope and Principles

1.1 Scope

1.1.1 This specification details the requirements of Iarnród Éireann with respect to the manufacture, supply and installation of various types of new fencing required adjacent to the railway track in urban and rural areas.

1.2 Principles

1.2.1 This specification applies from the operative date and supersedes all existing Iarnród Éireann fencing specifications.

1.2.2 Iarnród Éireann reserves the right to modify or amend this specification.

1.2.3 Unless otherwise stated in this specification, the manufacture, supply and installation of all types of fencing must be in accordance with the following documentation:

1.2.3.1 S 148 March 2013 Minimum Specification for Farm Fencing (Department of Agriculture, Food and the Marine).

1.2.3.2 I.S. 436: 2007 Farm Fencing – Timber Post and Wire.

1.2.3.3 I.S. 437: 2008 Horse and Stud Fencing- Timber Post and Rail.

1.2.3.4 I.S 136: 1982 Concrete Fence Posts.

1.2.3.5 EN ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods.

1.2.3.6 I.S. EN 10230-1 2000. Steel wire nails Loose nails for general applications.

1.2.3.7 I.S.105-1: 1977 Wire and Cut Nails for Building Purposes.

1.2.3.8 I.S EN 10244-2: 2009 Steel Wire and Wire Products - Non-ferrous Metallic Coatings on Steel Wire - Part 2: Zinc or Zinc Alloy Coatings.

1.2.3.9 I.S. 126: 1982 Galvanised Fencing Wire.

1.2.3.10 I.S. EN 10223-1:2012 Steel Wire and Wire Products for Fences - Part 1: Zinc and Zinc-alloy Coated Steel Barbed Wire.

1.2.3.11 I.S. EN 10223-2:2012 Steel Wire and Wire Products for Fencing and Netting - Part 2: Hexagonal Steel Wire Netting for Agricultural, Insulation and Fencing Purposes.

1.2.3.12 I.S. EN 10223-5:2012 Steel Wire and Wire Products for Fencing and Netting - Part 5: Steel Wire Woven Hinged Joint and Knotted Mesh Fencing.

1.2.3.13 I.S. EN 10223-6:2012 Steel Wire and Wire Products for Fences - Part 6: Steel Wire Chain Link Fencing.

1.2.3.14 I.S. EN 206-1:2002 Concrete - Part 1: Specification, performance, production and conformity.

1.2.3.15 BS3692:2001 ISO metric precision hexagon bolts, screws and nuts. Specification

1.2.3.16 BS 4320:1968. Specification for metal washers for general engineering purposes. Metric series.

1.2.3.17 BS 4102:1998. Specification for steel wire for general fencing purposes.

1.2.3.18 BS1722:2006 Fences.

2 Implementation

2.1 General Requirements

2.1.1 General

- 2.1.1.1 Fences shall be accurately set out and erected to provide a smooth alignment in plan and elevation and shall follow the profile of the ground along the length of the fence as closely as is practicable.
- 2.1.1.2 The line of the fence shall follow the exact same line as the existing fence line that is to be removed, if it is not possible to achieve this then the contractor must seek written agreement from the Iarnród Éireann Engineer, after consultation with the relevant property owner.
- 2.1.1.3 The Contractor must satisfy him/herself that accesses are adequate at tender stage to execute the works in accordance with their method statements.
- 2.1.1.4 The contractor shall supply material data sheets (and samples, where practicable e.g. fencing wire) for all fencing materials to be installed to the Iarnród Éireann Engineer, prior to works commencing.

2.1.2 Site Clearance

- 2.1.2.1 The Contractor shall clear all vegetation including any tree / bush growth and other obstructions when the fence is being erected and must remove all vegetation (Trees, Bushes, Entire Hedgerow etc) down to ground level from the running rail to 5m the field side of the boundary.
- 2.1.2.2 Where an existing fence is present, the contractor shall remove the existing fence before the installation of new fencing.
- 2.1.2.3 A definite plan by the contractor is to be agreed with the Iarnród Éireann Engineer and the property owner in relation to the construction of the fence so that animals/people trespass are catered for during construction.
- 2.1.2.4 Any request to leave existing hedgerows in place must be agreed in writing with the Iarnród Éireann Engineer prior to works commencing.
- 2.1.2.5 Where there is a stone wall all vegetation from around the wall must be removed and the fence erected on the property owner's side of the stone wall taking care not to damage the existing wall as the existing boundary must be maintained.
- 2.1.2.6 The contractor must take due care when removing vegetation and levelling the ground so as not to damage any Iarnród Éireann Infrastructure, if infrastructure is damaged, the contractor must bring this to the attention of the Iarnród Éireann Engineer, in writing and the contractor shall repair the infrastructure and bear the associated costs.
- 2.1.2.7 If it is not possible to remove the trees stumps/hedge row without compromising the formation, the Iarnród Éireann Engineer must be notified in writing and confirmation must be sought by the contractor in writing.
- 2.1.2.8 All remaining tree stumps must be treated with a Department of Agriculture approved Herbicide, as per the manufacturers guidelines, to ensure the leaves and root system are destroyed, preventing regrowth.
- 2.1.2.9 The contractor must saw cut all remaining tree stumps that are greater than 150mm diameter and remain jagged, prior to treating with herbicide as per cl 2.1.2.8.
- 2.1.2.10 Where boundary drains exist along the fence line, they shall be cleaned by removing vegetation from the bottom and sides of the drain.
- 2.1.2.11 The contractor shall prepare the ground by levelling with an excavator, after vegetation has been removed and the drain has been cleaned.
- 2.1.2.12 Once the ground along where the fence is to be erected is cleared and levelled the new fence can be erected.

2.1.2.13 If property owner restricts the contractor from erecting any element of the fencing or cutting any vegetation on Iarnród Éireann boundary/property, Iarnród Éireann engineer must be immediately notified in writing of the situation.

2.1.3 Disposal of Material/Vegetation

2.1.3.1 The Contractor shall legally dispose off-site, any existing fencing materials removed as part of the Scope of Works.

2.1.3.2 No tree/undergrowth removed by the contractor is to remain on Iarnród Éireann property.

2.1.3.3 No tree/undergrowth removed by the contractor is to remain on a landowners property, unless agreed in writing between the contractor and the landowner.

2.1.3.3.1 The contractor must agree a location to stockpile the vegetation with the landowner that is clear of the railway boundary (greater than 20m from the fence line).

2.1.3.3.2 If the landowner is offered any timber/trees the contractor must saw them into manageable lengths (2.5m) and stack in the agreed location.

2.1.3.4 A copy of this agreement must be provided to the Iarnród Éireann Engineer.

2.1.3.5 All undergrowth is to be mulched by use of a mulching head attachment to a suitable machine and shall be removed off site prior to completion of works.

2.1.3.6 Due care is to be taken by the Contractor with regard to the use of mulching heads when used near livestock and people.

2.1.3.7 The contractor must tidy up after mulching takes place to the satisfaction of the Iarnród Éireann Engineer, ensuring all vegetation and vegetation fragments are removed from site and disposed of legally in accordance with relevant legislation.

2.1.3.8 On completion of works the site must be left clean and tidy, to the satisfaction of the Iarnród Éireann Engineer.

2.1.4 Arrangements with Third Parties

2.1.4.1 Contractor to liaise directly with all third parties in relation to carrying out these works including ESB, Local Authorities/County Councils, Bord Gais, Eircom, Property Owners and any others as required before, during and after the works.

2.1.4.2 Contractor to ensure that all services are identified prior to commencement of work, contractor must exercise due care in relation to working around these services.

2.1.4.3 Contractor must agree terms and conditions with all property owners prior to entry onto their property. These terms and conditions are entirely between the contractor and the property owner and not Iarnród Éireann.

2.1.4.4 All access used by the contractor are to be made good and returned to original condition or better (the contractor must take photographs as proof of condition of access prior to works commencing)

2.1.4.5 The contractor to make good and bare the associated costs for any damage caused by the works to the property, both Irish Rail and property owners, this includes any reseeded required as a direct result of the fencing works.

2.1.4.6 It is the contractor's responsibility to determine if traffic management is required and if so they shall bare the associated costs and execute the works in accordance with Chapter 8 of the Traffic Signs Manual.

2.1.5 Unauthorised Access during Works

2.1.5.1 Temporary fences are to be provided by the contractor, where livestock need to be contained for the duration of the fencing works.

2.1.5.2 As soon as the Contractor is placed in possession of the site he shall immediately close and secure the area to the public. Such arrangements shall be made so as pedestrians in the area shall be unable to access the worksite at any time, day or night.

2.1.6 Adjoining Fences, Walls, Structures

- 2.1.6.1 Fences shall be effectively terminated at existing fences, walls and other structures to provide a complete barrier to persons or animals as appropriate.
- 2.1.6.2 Fencing shall not continue across or within a water course, fencing shall be returned to the structure both sides, providing a complete barrier to persons or animals as appropriate.

2.2 Concrete Post and Wire

2.2.1 General

2.2.1.1 Concrete Post and Wire fencing shall be of the type detailed in the following clauses and as shown in appendix A, drawing A.1 and shall comply with all other statutory requirements and other specified requirements.

2.2.2 Precast Concrete Posts and Struts

2.2.2.1 Precast concrete fence posts and struts shall conform with the requirements of I.S. 136 : 1982 in all aspects other than length.

2.2.2.2 The minimum length of posts and struts, shall be as follows:

2.2.2.2.1 The minimum overall length of the intermediate post shall be 1990 mm.

2.2.2.2.2 The minimum overall length of the straining post shall be 2270 mm.

2.2.2.2.3 The minimum overall length of the strut shall be 2140 mm.

2.2.2.3 The minimum cross sections of posts and struts, in accordance with I.S.136:1982, shall be as follows:

2.2.2.3.1 The cross section of the intermediate post shall be 100mmx100mm at the base and 100mmx75mm at the top.

2.2.2.3.2 The cross section of the straining post shall be 125mmx125mm at the base and 125mmx125mm at the top.

2.2.2.3.3 The cross section of the strut shall be 125mmx100mm at the base and 125mmx100mm at the top.

2.2.2.4 Posts shall be holed to the appropriate size to allow the fixing of the line wire specified in section 2.2.3 below.

2.2.2.5 Heads of posts shall be half rounded in order to prevent the lodgment of water.

2.2.2.6 Any section of concrete post fencing (including branches or spurs) shall start with a straining post and shall end with a straining post.

2.2.2.7 Straining posts should be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.

2.2.2.8 On straight sections of fence, straining posts shall be spaced at a distance not greater than 70 metres. In these cases, the wire must be tensioned at these posts by one of the means outlined in clause 2.2.3.6 below, then continue the fencing with another length of 70m.

2.2.2.9 The spacing between intermediate posts or between an intermediate post and a straining post, measured centre to centre of posts, shall not be greater than 3.5 metres.

2.2.2.10 Struts shall be fitted to all straining posts in the direction of the line of fencing and shall be securely fastened together.

2.2.3 Fencing Wire

2.2.3.1 All wire (line, sheep, barbed, tying) shall conform to IS EN 10223 and be galvanized, complying with I.S. EN 10244-2 (Class A) and I.S 126:1982.

2.2.3.2 Line wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:

2.2.3.2.1 Line wire shall consist of 10 s.w.g. (3.15 millimetre diameter) high tensile steel wire complying with I.S. 126:1982.

2.2.3.2.2 There are to be seven strands of line wire and each strand shall pass through each of the holes in the post.

- 2.2.3.2.3 The height of the top strand of line wire from the ground is to be 1420mm.
- 2.2.3.2.4 Spacing of line wire shall be as detailed on drawing within appendix A and in accordance with I.S. 136:1982.
- 2.2.3.3 Sheep wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:
 - 2.2.3.3.1 Sheep wire shall be HT8/80/15.
 - 2.2.3.3.2 Sheep wire shall be manufactured to IS EN 10223-5 with a minimum class 'medium 2M' high tensile steel and galvanized to IS EN 10244-2 (Class A)
 - 2.2.3.3.3 The maximum opening size at the bottom of the sheep wire shall not exceed 150mm x 75mm, while the maximum opening at the top of the sheep wire shall not exceed 150mm x 150mm.
 - 2.2.3.3.4 Sheep wire is to be fixed to the field side of the fence, 100mm above ground level and shall be fixed to the line wires adequately with tying wire or ring staples at a minimum of three locations per line between posts (see clauses 2.2.4.6 and 2.2.4.7 for tying wire and staples specification).
- 2.2.3.4 Barbed wire shall be as specified and detailed on drawing A.1 within appendix A and shall meet the following requirements:
 - 2.2.3.4.1 Heavy gauge high tensile
 - 2.2.3.4.2 Barbed wire shall be constructed of two number 2 mm high tensile line wires, to I.S. EN 10223-1:2012.
 - 2.2.3.4.3 Shall be galvanized to comply with I.S. EN 10244-2 (Class A).
 - 2.2.3.4.4 There shall be five strands of barbed wire and barb spacings shall comply with I.S. EN 10223-1
 - 2.2.3.5 The top two strands of barbed wire shall be adequately attached (with tying wire or ring staples at a minimum of three locations per line between posts) to the top two strands of line wire and the third adequately attached to the top of the sheepwire, the fourth adequately attached to the fifth from the top strand of linewire and the fifth to the bottom strand of line wire. See drawing A.1 within appendix A.
 - 2.2.3.6 Each line wire and barbed wire shall be strained tightly and secured to each straining post by one of the following means:
 - 2.2.3.6.1 Winding brackets shall be attached to the post with fixing bolts.
 - 2.2.3.6.2 Eyebolt strainers shall be passed through a hole in the post and secured with a nut and washer.
 - 2.2.3.6.3 Eyebolt strainers fixed to intermediate posts shall, in addition, be fitted with ring nuts; in this case the wire attached to the eye of the eyebolt strainer shall be tensions before the ring nut is fixed.
 - 2.2.3.7 Wire shall be erected on the property owner side of the posts.

2.2.4 Ancillary Items (fixings)

- 2.2.4.1 Eye bolt strainers, winding brackets and fixing bolts and nuts shall be hot dipped galvanised in accordance with EN ISO 1461 with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).
- 2.2.4.2 Eye bolt strainers shall consist of bolts of 250 mm overall length and not less than 9.5 mm diameter with a welded eye at one end. They shall be threaded and fitted with nuts and washers.
- 2.2.4.3 Two-way eye bolt strainers shall be fitted with ring nuts.
- 2.2.4.4 Winding brackets intended for attachment to a post shall be manufactured from mild steel flat not less than 45mm x 2mm and shall be fitted with a winding bolt of 12 mm minimum diameter and with a friction type ferrule or ratchet winder. One end of the winding bracket shall be provided with a hole for the attachment of the line wire.

- 2.2.4.5 The Contractor shall ensure that connectors are designed to match the diameter and type of line wire used. One connector is adequate for terminating a line wire at a straining post, two connectors are required to join two line wires in a continuous run.
- 2.2.4.6 Tying wire shall be 1.6mm diameter galvanized mild steel to I.S 126. The galvanizing shall comply with I.S. EN 10244-2 (Class A).
- 2.2.4.7 Staples shall be galvanized or zinc/aluminum coating, minimum 40mm x 3.55mm round standard or barbed wire to I.S 105-1. The coating shall comply with I.S. EN 10244-2.

2.2.5 Foundations

- 2.2.5.1 Minimum sizes of excavated holes for each post and strut shall be as follows:

Straining post	-	900mm deep x 450mm square
Intermediate post	-	600mm deep x 300mm square
Strut	-	750mm x 300mm x depth to suit (min 450mm)

- 2.2.5.2 Concrete for surrounding the bases of posts and struts shall be batched concrete to at least ST2 concrete to IS EN 206. The concrete shall be placed in position before the commencement of the initial set.
- 2.2.5.3 The contractor must make available concrete samples for cube tests if requested by the Iarnród Éireann Engineer at any stage.
- 2.2.5.4 Excavated holes for posts and struts shall have vertical sides except that it shall be permissible for the side of a strut hole adjacent to the post to be sloped.
- 2.2.5.5 After insertion of the post or strut, the hole shall be filled with concrete and well rammed as the filling proceeds. After the concrete has hardened, the remainder of the hole (75mm as per drawing A.1) shall be filled with an approved good quality material (topsoil) which shall be finished proud of the surrounding ground.

2.2.6 Installation

- 2.2.6.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.
- 2.2.6.2 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence.
- 2.2.6.3 When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging.
- 2.2.6.4 The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.
- 2.2.6.5 Struts shall be fitted to all straining posts in the direction of each line of fencing. See mid and intermediate corner detail on drawing A.1

2.3 Timber Post and Wire

2.3.1 General

2.3.1.1 Timber post and wire fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A.

2.3.2 Timber Posts and Struts

2.3.2.1 The minimum length of posts and struts, shall be as follows:

2.3.2.1.1 The minimum overall length of the intermediate post shall be 2100mm.

2.3.2.1.2 The minimum overall length of the straining post shall be 2500mm.

2.3.2.1.3 The minimum overall length of the strut shall be 1800 mm.

2.3.2.2 The minimum cross sections of posts and struts, in accordance with I.S.436:2007, shall be as follows:

2.3.2.2.1 The cross section of the intermediate post shall be 125mm diameter (circular or octagonal) octopost (or similar approved).

2.3.2.2.2 The cross section of the straining post shall be 150mm diameter (circular or octagonal) octopost (or similar approved).

2.3.2.2.3 The cross section of the strut shall be 100mm.

2.3.2.3 Posts shall be scots pine (*Pinus Sylvestris*) or similar approved, grading in accordance with table 2A of the Department of Agriculture and Food minimum specification for Farm Fencing, full pressure impregnated with Creosote classified and approved in accordance with European directive 94/60EC, penetration class P8 and retention demand Post Class A and shall have a moisture content not exceeding 28% when measured in accordance with I.S. 436 and shall be certified in accordance with ISO 9002 and ISO14001.

2.3.2.4 The requirements for the length of posts have been related to 'normal' ground conditions. In soft ground it may be necessary to increase the specified lengths of posts to provide the necessary stability. Where ground conditions are other than 'normal', approval shall be obtained, in advance, in writing, from the Iarnród Éireann Engineer on what modifications are required.

2.3.2.5 Strainers should be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.

2.3.2.6 On straight sections of fence, straining posts shall be spaced at a distance not greater than 150 metres. In these cases, the wire must be tensioned at these posts by one of the means outlined in clause 2.3.3.5, then continue the fencing with another length of 150 metres.

2.3.2.7 The spacing between intermediate posts or between an intermediate post and a straining post shall not be greater than 3.5 metres.

2.3.2.8 Struts shall be fitted to all straining posts in the direction of the line of fencing, at a point within one half and two thirds up the straining post measured from ground level and shall be securely fastened together. See mid and corner detail on drawing A.2-1 and A.2-2.

2.3.3 Fencing Wire

2.3.3.1 All wire (sheep, barbed, tying) shall conform to IS EN 10223 and be galvanized, complying with I.S. EN 10244-2 (Class A).

2.3.3.2 Sheep wire shall be as specified and detailed on drawing A.2 within appendix A and shall meet the following requirements:

- 2.3.3.2.1 Sheep wire shall be HT8/80/15.
- 2.3.3.2.2 Sheep wire shall be manufactured to IS EN 10223-5 with a minimum class 'medium 2M' high tensile steel and galvanized to IS EN 10244-2 (Class A).
- 2.3.3.2.3 The maximum opening size at the bottom of the sheep wire shall not exceed 150mm x 75mm, while the maximum opening at the top of the sheep wire shall not exceed 150mm x 150mm.
- 2.3.3.2.4 Sheep wire is to be fixed to the field side of the fence, 100mm above ground level and shall be fixed to the posts with five number staples at each post, staples as specified in section 2.3.4.7.
- 2.3.3.2.5 To prevent splitting of the post, staples shall be driven at an angle and staggered along the length of the post. Staples shall not be driven home fully as this will inhibit movement of the barbed wire and will damage the galvanising coating.
- 2.3.3.3 Barbed wire shall be as specified and detailed on drawing A.2 within appendix A and shall meet the following requirements:
 - 2.3.3.3.1 Heavy gauge high tensile.
 - 2.3.3.3.2 Barbed wire shall be constructed of two number 2 mm high tensile line wires, to I.S. EN 10223-1:2012.
 - 2.3.3.3.3 Shall be galvanized to comply with I.S. EN 10244-2 (Class A).
 - 2.3.3.3.4 There shall be five strands of barbed wire and barb spacings shall comply with I.S. EN 10223-1
 - 2.3.3.4 The third strand of barbed wire from the top shall be adequately attached (with tying wire or ring staples at a minimum of three locations per line between posts) to the top of the sheepwire, the fourth strand of barbed wire shall be adequately attached to middle of the sheepwire and the fifth strand of barbed wire shall be adequately attached to the bottom of the sheepwire. See drawing A.2-1 and A.2-2 within appendix A.
 - 2.3.3.5 Each line of barb wire shall be strained tightly around each straining post using a suitable straining tool. Once strained the free end of the wire shall be secured to the main length by means of a wire connector and shall be secured and maintained at the required height with a staple driven into the post.
 - 2.3.3.6 Wire shall be erected on the adjacent landowner side of the fence.

2.3.4 Ancillary Items (fixings)

- 2.3.4.1 The Contractor shall ensure that connectors are designed to match the diameter and type of barb wire used. One connector is adequate for terminating a barb wire at a straining post, two connectors are required to join two barb wires in a continuous run.
- 2.3.4.2 Tying wire shall be 1.6mm diameter galvanized mild steel to I.S 126. The galvanizing shall comply with I.S. EN 10244-2 (Class A).
- 2.3.4.3 Staples shall be galvanised or zinc/aluminum coating, minimum 40mm x 3.55mm round standard or barbed wire to I.S 105-1. The coating shall comply with I.S. EN 10244-2.

2.3.5 Foundations

- 2.3.5.1 1350mm of the post shall be above ground.
- 2.3.5.2 Posts with pointed ends shall be driven into the ground to the following depths:
 - 2.3.5.2.1 For intermediate posts 750mm.
 - 2.3.5.2.2 For straining posts 1150mm.
 - 2.3.5.3 Posts with flat ends shall be placed by excavation and set in concrete (see alternative foundation drawing A.2-2, if this arrangement has been specified by the Iarnród Éireann Engineer in advance).

2.3.6 Installation

- 2.3.6.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.
- 2.3.6.2 Timber posts with pointed ends shall be driven into the ground. If timber posts with square cut ends or steel posts fitted with baseplates are specified by the Iarnród Éireann Engineer, they shall be set in concrete, as specified for concrete posts in Clause 2.2.5 of this Specification.
- 2.3.6.3 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence.
- 2.3.6.4 When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging.
- 2.3.6.5 Struts shall be fitted to all straining posts in the direction of each line of fencing (see cl 2.3.2.7 above).
- 2.3.6.6 The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.

2.4 2.4m Security Purpose (SP) Palisade Fencing

2.4.1 General

- 2.4.1.1 Palisade fencing shall be in accordance with BS1722-12:2006 and as shown in appendix A, drawing A.3-1 and shall comply with all other statutory requirements and other specified requirements.
- 2.4.1.2 The type of fencing shall be a 2.4m (i.e. the top of the fencing pales shall be 2.4 metres above ground level) steel security palisade (SP) in accordance with B.S. 1722 : Part 12 : 2006 and shall meet the specific requirements as set out in the following clauses.
- 2.4.1.3 Materials and strength requirements shall be in accordance with SP fencing requirements as detailed in Section 3 and 4 of B.S. 1722 : Part 12 : 2006, unless otherwise stated.
- 2.4.1.4 All steel palisade fencing components shall be of steel grade S275 to BS EN 10025:1993, in accordance with table 7 of BS1722-12:2006, unless otherwise specified.
- 2.4.1.5 After fabrication of fencing components, including the punching or drilling of any holes and all welding, the fencing shall be hot dip galvanised with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns) and shall be polyester powder coated green (Ral6005) in accordance with BS EN ISO 1461 or BS EN 10240 unless otherwise specified by Iarnród Éireann Engineer.
- 2.4.1.6 The fence shall be inspected after erection and any damaged areas found in the hot dipped galvanized coating and green powder coating (if specified) shall be repaired in accordance with BS EN ISO 1461:1999.
- 2.4.1.7 The zinc content of any such paint shall be in accordance with BS 4652 (i.e. at least 80% in the dry film). The coating thickness in the repaired area shall exceed that of the local galvanized coating layer.
- 2.4.1.8 On delivery, the contractor shall provide the Iarnród Éireann Engineer with a certificate confirming that the fence is manufactured in accordance with Iarnród Éireann instructions and BS 1722-12:2006.

2.4.2 Pales

- 2.4.2.1 Pales shall be 3.0mm thick corrugated, with a 'W' profile.
- 2.4.2.2 The tolerance on the length of the pale shall be ±5mm.
- 2.4.2.3 The pale head shall be the triad top (or triple pointed, splayed and returned) type.
- 2.4.2.4 Pales shall be secured to the rails at every intersection by full profile 3mm fillet welds of minimum length 30mm on each side of the pale.
- 2.4.2.5 All welding operation shall be carried out in accordance with BS EN 1011-1 and BS EN 1011-2, by suitable personnel qualified in accordance with BS EN 287-1.
- 2.4.2.6 The maximum spacing of pales, centre to centre, shall be 155mm.
- 2.4.2.7 The minimum face to view (width) shall be 70mm.
- 2.4.2.8 By exception and where it has been agreed in advance with the Iarnród Éireann Engineer, riveted pales may be used only if the pales are then tack welded on site and coated with an anti-rust coating.
- 2.4.2.9 Riveted pales shall be secured with fixings of minimum diameter 8mm. The heads of all fastening shall have the minimum possible projection beyond the face of the pale to minimize tampering and footholds.

2.4.3 Posts

- 2.4.3.1 The posts shall be to the minimum requirements of BS type SP30 in Table 2 of B.S. 1722 : Part 12 (127x76x13kg/m UB).
- 2.4.3.2 The post head shall be pointed type to match the specified pales.
- 2.4.3.3 The maximum centre of posts shall be 2.75 metres.

- 2.4.3.4 The posts shall be set in concrete in the ground to a minimum depth of 750mm.
- 2.4.3.5 The requirements for the length of posts have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.4.4 Rails

- 2.4.4.1 A minimum of two number horizontal rails shall be installed.
- 2.4.4.2 The rails shall be to the minimum requirements of BS type SP30 in Table 2 of B.S. 1722 : Part 12, as shown on drawing (50x50x6 RSA)
- 2.4.4.3 The oversail shall be as per SP30 in Table 2 of B.S. 1722 : Part 12. The oversail from the centre of the upper rail fixing to the top of the pales shall be 475mm. The oversail from the centre of the lower fixing to the bottom of the pales shall be 380mm.

2.4.5 Post to Rail Connections

- 2.4.5.1 Rails shall be secured to posts with connector plates fitted to the web of the post. The diameter of the bolt shall be 12mm as per SP30 in table 2 of BS1722-12:2006.
- 2.4.5.2 Provision shall be made for thermal expansion by providing slotted holes at the rail to plate connection.
- 2.4.5.3 Plates shall be a minimum of 6mm thick, and of sufficient section to give a minimum distance of 9mm to the edge of the hole.
- 2.4.5.4 Connector plates shall be connected to the post by welding at the clear and rail end interface (not at the bolts) with 5mm full profile fillet welds of minimum length 30mm, this should be carried out when the fencing has been lined, levelled and bolts tightened and the concrete bases set.

2.4.6 Ancillary Items (Fixings)

- 2.4.6.1 All bolts shall comply with BS3692 and shall be strength grade 8.8. Nuts shall be strength grade 8 for grade 8.8 fasteners and washers shall conform to BS4320.
- 2.4.6.2 Panel fixing bolts shall be cup square headed.
- 2.4.6.3 Bolts for pales shall have special formed heads to suit pale profiles and shall be tamper resistant i.e. not easily removed using simple tools
- 2.4.6.4 All bolts, nuts and washers shall be hot dipped galvanised in accordance with EN ISO 1461.
- 2.4.6.5 On completion all fixings shall be vandal proof (secure and tamper resistant).

2.4.7 Foundations

- 2.4.7.1 Excavated holes for each post shall be formed with vertical sides, with a dimension in plan of either 350mmx350mm square or 450mm diameter round and to a depth of 800mm.
- 2.4.7.2 The posts shall be set in concrete in the ground to a depth of 750mm.
- 2.4.7.3 The hole for the post shall be filled to ground level with concrete which shall be rammed as the filling proceeds and the top of the concrete weathered.
- 2.4.7.4 The top of the concrete shall have a raised profile to aid in drainage around the post.
- 2.4.7.5 Concrete for post foundations shall be 30N20 concrete to IS EN 206 and shall be placed in position before commencement of the initial set.

2.4.7.6 The requirements for the foundation sizes have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.4.8 Gates

2.4.8.1 Gates, if specified, shall be in accordance with section 7 of BS1722-12:2006 and shall be of comparable quality and provide a comparable degree of security to the adjacent fence.

2.4.9 Additional Security Measures

2.4.9.1 When the Iarnród Éireann Engineer considers a section of fencing to be at risk from burrowing the contractor shall provide one of the additional security measures as outlined in Section 6.2 of B.S. 1722 : Part 12 : 2006 the method of which shall be agreed in advance with the Iarnród Éireann Engineer.

2.4.9.2 If specified, in areas where increased resistance to pale removal is required, the contractor shall provide an additional rail which shall be attached to the lower part of each pale. This additional rail shall be fixed to the pales 100mm from the bottom of the pales.

2.4.10 Installation

2.4.10.1 The steel palisade fencing shall follow the site gradients and special panels shall be fabricated to suit.

2.4.10.2 The contractor shall prepare the ground to provide a fully compacted level gradient.

2.4.10.3 The contractor shall ensure the finished palisade fence the bottom of the fence shall not be more than 50mm above mean ground level or concrete sill level.

2.4.10.4 The contractor shall carry out the necessary surveys in each section where a gradient occurs to enable special fencing panels be fabricated to fit to the gradient.

2.4.10.5 To reduce the final amount of deflection in the fence rails, during the installation of palisade fences the bottom horizontal rail shall be supported so that, after propping, tightening of the bolts, aligning and plumbing to the fence and before placing concrete to posts surround, there is a slight upward chamber. The temporary props to the bottom rail shall be removed only after the concrete has set.

2.5 2.4m General Purpose (GP) Palisade Fencing

2.5.1 General

- 2.5.1.1 Palisade fencing shall be in accordance with BS1722-12:2006 and as shown in appendix A, drawing A.3-2 and shall comply with all other statutory requirements and other specified requirements.
- 2.5.1.2 The type of fencing shall be a 2.4m (i.e. the top of the fencing pales shall be 2.4 metres above ground level) steel general purpose palisade (GP) in accordance with B.S. 1722 : Part 12 : 2006 and shall meet the specific requirements as set out in the following clauses.
- 2.5.1.3 Materials and strength requirements shall be in accordance with GP fencing requirements as detailed in Section 3 and 4 of B.S. 1722 : Part 12 : 2006, unless otherwise stated.
- 2.5.1.4 All steel palisade fencing components shall be of steel grade S275 to BS EN 10025:1993, in accordance with table 7 of BS1722-12:2006, unless otherwise specified.
- 2.5.1.5 After fabrication of fencing components, including the punching or drilling of any holes and all welding, the fencing shall be hot dip galvanised with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns) and shall be polyester powder coated green (Ral6005) in accordance with BS EN ISO 1461 or BS EN 10240 unless otherwise specified by Iarnród Éireann Engineer.
- 2.5.1.6 The fence shall be inspected after erection and any damaged areas found in the hot dipped galvanized coating and green powder coating (if specified) shall be repaired in accordance with BS EN ISO 1461:1999.
- 2.5.1.7 The zinc content of any such paint shall be in accordance with BS 4652 (i.e. at least 80% in the dry film). The coating thickness in the repaired area shall exceed that of the local galvanized coating layer.
- 2.5.1.8 On delivery, the contractor shall provide the Iarnród Éireann Engineer with a certificate confirming that the fence is manufactured in accordance with Iarnród Éireann instructions and BS 1722-12:2006.

2.5.2 Pales

- 2.5.2.1 Pales shall be 3.0mm thick corrugated, with a 'W' profile.
- 2.5.2.2 An alternative 'D' profile, 3.0mm thick, may be used for general purpose palisade pales, however this shall be specified in advance by the Iarnród Éireann Engineer.
- 2.5.2.3 The tolerance on the length of the pale shall be ± 5 mm.
- 2.5.2.4 The pale head shall be the triad top (or triple pointed, splayed) type.
- 2.5.2.5 Pales shall be secured to the rails at every intersection by full profile 3mm fillet welds of minimum length 30mm on each side of the pale.
- 2.5.2.6 All welding operation shall be carried out in accordance with BS EN 1011-1 and BS EN 1011-2, by suitable personnel qualified in accordance with BS EN 287-1.
- 2.5.2.7 The maximum spacing of pales, centre to centre, shall be 155mm.
- 2.5.2.8 The minimum face to view (width) shall be 65mm.
- 2.5.2.9 By exception, where it has been agreed in advance with the Iarnród Éireann Engineer, riveted pales may be used only if the pales are then tack welded on site and coated with an anti-rust coating.
- 2.5.2.10 Riveted pales shall be secured with fixings of minimum diameter 8mm. The heads of all fastening shall have the minimum possible projection beyond the face of the pale to minimize tampering and footholds.

2.5.3 Posts

- 2.5.3.1 The posts shall be to the minimum requirements of BS type GP24 in Table 1 of B.S. 1722 : Part 12:2006 (Rolled steel joists (I section) 102x44x7.5kg/m)
- 2.5.3.2 The post head shall be pointed type to match the specified pales.
- 2.5.3.3 The maximum centre of posts shall be 2.75 metres.
- 2.5.3.4 The posts shall be set in concrete in the ground to a minimum depth of 750mm.
- 2.5.3.5 The requirements for the length of posts have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.5.4 Rails

- 2.5.4.1 A minimum of two number horizontal rails shall be installed.
- 2.5.4.2 The rails shall be to the minimum requirements of BS type GP24 in Table 1 of B.S. 1722 : Part 12, as shown on drawing (45x45x6 RSA)
- 2.5.4.3 The oversail shall be as per GP24 in Table 1 of B.S. 1722 : Part 12:2006. The oversail from the centre of the upper rail fixing to the top of the pales shall be 300mm. The oversail from the centre of the lower fixing to the bottom of the pales shall be 210mm.

2.5.5 Post to Rail Connections

- 2.5.5.1 Rails shall be secured to posts with connector plates bolted to the vertical leg of the rail. The diameter of the bolt shall be 12mm as per GP24 in table 1 of BS1722-12:2006.
- 2.5.5.2 Provision shall be made for thermal expansion by providing slotted holes at the rail to plate connection.
- 2.5.5.3 Plates shall be a minimum of 6mm thick, and of sufficient section to give a minimum distance of 9mm to the edge of the hole.
- 2.5.5.4 Connector plates shall be connected to the post by welding at the clear and rail end interface (not at the bolts) with 5mm full profile fillet welds of minimum length 30mm, this should be carried out when the fencing has been lined, levelled and bolts tightened and the concrete bases set.

2.5.6 Ancillary Items (Fixings)

- 2.5.6.1 All bolts shall comply with BS3692 and shall be strength grade 4. Nuts shall be strength grade 4 for grade 4.6 fasteners and washers shall conform to BS4320.
- 2.5.6.2 Panel fixing bolts shall be cup square headed.
- 2.5.6.3 Bolts for pales shall have special formed heads to suit pale profiles and shall be tamper resistant i.e. not easily removed using simple tools
- 2.5.6.4 All bolts, nuts and washers shall be hot dipped galvanised in accordance with EN ISO 1461.
- 2.5.6.5 On completion all fixings shall be vandal proof (secure and tamper resistant).

2.5.7 Foundations

- 2.5.7.1 Excavated holes for each post shall be formed with vertical sides, with a dimension in plan of either 350mmx350mm square or 450mm diameter round and to a depth of 800mm.
- 2.5.7.2 The posts shall be set in concrete in the ground to a depth of 750mm.
- 2.5.7.3 The hole for the post shall be filled to ground level with concrete which shall be rammed as the filling proceeds and the top of the concrete weathered.
- 2.5.7.4 The top of the concrete shall have a raised profile to aid in drainage around the post.

- 2.5.7.5 Concrete for post foundations shall be 30N20 concrete to IS EN 206 and shall be placed in position before commencement of the initial set.
- 2.5.7.6 The requirements for the foundation sizes have been related to 'normal' ground conditions. This specification does not cover situations where the ground is very firm or stiff or where the ground is soft when it may be necessary to modify the specified lengths of posts and the respective foundation sizes. Where ground conditions are other than 'normal', approval shall be obtained in advance from the Iarnród Éireann Engineer on what modifications are required.

2.5.8 Gates

- 2.5.8.1 Gates, if specified, shall be in accordance with section 7 of BS1722-12:2006 and shall be of comparable quality and provide a comparable degree of security to the adjacent fence.

2.5.9 Additional Security Measures

- 2.5.9.1 When the Iarnród Éireann Engineer considers a section of fencing to be at risk from burrowing the contractor shall provide one of the additional security measures as outlined in Section 6.2 of B.S. 1722 : Part 12 : 2006 the method of which shall be agreed, in advance with the Iarnród Éireann Engineer
- 2.5.9.2 If specified, in areas where increased resistance to pale removal is required, the contractor shall provide an additional rail which shall be attached to the lower part of each pale. This additional rail shall be fixed to the pales 100mm from the bottom of the pales.

2.5.10 Installation

- 2.5.10.1 The steel palisade fencing shall follow the site gradients and special panels shall be fabricated to suit.
- 2.5.10.2 The contractor shall prepare the ground to provide a fully compacted level gradient.
- 2.5.10.3 The contractor shall ensure the finished palisade fence the bottom of the fence shall not be more than 50mm above mean ground level or concrete sill level.
- 2.5.10.4 The contractor shall carry out the necessary surveys in each section where a gradient occurs to enable special fencing panels be fabricated to fit to the gradient.
- 2.5.10.5 To reduce the final amount of deflection in the fence rails, during the installation of palisade fences the bottom horizontal rail shall be supported so that, after propping, tightening of the bolts, aligning and plumbing to the fence and before placing concrete to posts surround, there is a slight upward chamber. The temporary props to the bottom rail shall be removed only after the concrete has set.

2.6 Deer Proof Fencing

2.6.1 General

- 2.6.1.1 Deer Proof fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A, drawing A.4-1.
- 2.6.1.2 Fencing using rectangular wire mesh shall be HT17/190/15, 2m high, formed of 17 horizontal wires, with suitably graded spaces becoming smaller nearer the ground. There shall be a maximum space of 150mm between the vertical wires.

2.6.2 Timber Posts and Struts

- 2.6.2.1 Timber fence posts and struts shall conform with the requirements of I.S. 436 : 2007.
- 2.6.2.2 The minimum length of posts and struts, shall be as follows:
 - 2.6.2.2.1 The minimum overall length of the intermediate post shall be 3000 mm.
 - 2.6.2.2.2 The minimum overall length of the vertical post within H Frame shall be 3000mm.
 - 2.6.2.2.3 The minimum overall length of the straining post shall be 3000 mm.
 - 2.6.2.2.4 The minimum overall length of the strut (horizontal post) for H Frame shall be 2100 mm.
- 2.6.2.3 The minimum cross sections of posts and struts, in accordance with I.S.436:2007, shall be as follows:
 - 2.6.2.3.1 The cross section of the intermediate post shall be 125mm diameter.
 - 2.6.2.3.2 The cross section of the vertical post within the H Frame shall be 125mm diameter.
 - 2.6.2.3.3 The cross section of the straining post shall be 225mm diameter.
 - 2.6.2.3.4 The cross section of the strut shall be 125mm diameter.
- 2.6.2.4 H-frames or straining frame shall be constructed at each end of a run of deer fencing, at each acute change of direction (more than 30°), and as interval frames in any run exceeding 200 metres.
- 2.6.2.5 The vertical posts within H frames shall be positioned at least 2m apart.
- 2.6.2.6 The horizontal post shall be securely fixed to the verticals by either galvanised steel rods, or by a rebated joint.
- 2.6.2.7 Straining posts may be used for changes in the direction of the fence of less than 30°.
- 2.6.2.8 Intermediate posts shall be spaced at a maximum distance of 3.5 metres for standard fencing.
- 2.6.2.9 In rough terrain, the distances between posts should be appropriately reduced and in agreement with the Iarnród Éireann Engineer in advance of works commencing.

2.6.3 Fencing Wire

- 2.6.3.1 Rectangular wire mesh shall be HT/17/190/15, formed of zinc-coated high tensile horizontal line wires with a minimum diameter of 2.5mm, and zinc-coated mild steel vertical wires with a minimum diameter of 2.5mm. It shall comply with EN10223-2 (Galvanised to Class A).
- 2.6.3.2 Joint knotting shall either be hinged-joint or tight-lock knotting.

2.6.4 Foundations

- 2.6.4.1 Posts with pointed ends shall be driven into the ground to a minimum depth of 1000mm.
- 2.6.4.2 Posts with flat ends shall be placed by excavation and set in concrete in accordance with section 2.2.5 of this specification (see drawing A.4-2 for this alternative post foundation if specified).

- 2.6.4.3 Vertical posts within H-Frame shall be driven 1000mm into the ground or placed in an augered hole
- 2.6.4.4 Straining posts shall be driven 1m into the ground or placed in an augered hole.
- 2.6.4.5 Intermediate posts shall be driven 1m into the ground or placed in an augered hole.

2.6.5 Installation

- 2.6.5.1 Horizontal line wires as specified above shall be securely fixed to the outer post of the H-frame. Each line wire shall be taken round this post and fastened to itself either by tying, or by a pre-formed fenced connector.
- 2.6.5.2 The entire fence shall then be strained and stapled in accordance with the specifications of the mesh manufacturer.
- 2.6.5.3 The diagonal tensioning wire of the H-frame shall be 3.15mm diameter, and meet the requirements of BS 4102.

2.7 Horse Fencing

2.7.1 General

- 2.7.1.1 Horse fencing shall conform with the requirements of the most current Department of Agriculture and Food Minimum specification for Farm Fencing and also to the specific requirements as detailed in the following clauses and as shown in appendix A.
- 2.7.1.2 All posts shall be four-way pointed and all rail ends shall be cut square. In addition all retaining board ends and top board ends shall be cut square.
- 2.7.1.3 Wire mesh fence to be constructed using pressure creosoted timber octoposts (or similar approved) and a top board to make the fence visible to horses.
- 2.7.1.4 The type of horse fencing shall be specified by the Iarnród Éireann Engineer.

2.7.2 Timber Post and Rail

2.7.2.1 Materials

- 2.7.2.1.1 Posts shall be scots pine (*Pinus Sylvestris*) or similar approved, grading in accordance with table 2A and 2B of the Department of Agriculture and Food minimum specification for Farm Fencing, full pressure impregnated with Creosote classified and approved in accordance with European directive 94/60EC penetration class P8 and retention demand Post Class A and shall have a moisture content not exceeding 26% when measured in accordance with I.S. 437 and shall be certified in accordance with ISO 9002 and ISO14001.
- 2.7.2.1.2 Posts shall be, at least, 150 mm x 75 mm, and shall be, at least, 1.95 m long.
- 2.7.2.1.3 The posts shall be erected with at least 600 mm below ground and 1350mm above ground.
- 2.7.2.1.4 The maximum spacing of posts shall be 2.4 m.
- 2.7.2.1.5 Rails shall be, at least, 100 mm x 47 mm where the posts are spaced at 2.4 m centres and 100 mm x44 mm where the posts are spaced at 2.1 m centres.
- 2.7.2.1.6 Where 3 rails are used they shall be spaced at no more than 400 mm centres.
- 2.7.2.1.7 Where 4 rails are used they shall be spaced at 300 mm centres.
- 2.7.2.1.8 Rails shall be on the paddock side of the fence.
- 2.7.2.1.9 Nails shall be at least 100mm long and 4.2mm diameter steel nails to IS EN 10230-1.

2.7.2.2 Installation

- 2.7.2.2.1 Rails and top boards shall be fixed to the field side of posts. The top of the rail should always finish flush with the top of the post.
- 2.7.2.2.2 Rail and top board joints shall be staggered so that only alternate joints occur on one post. They shall be butt jointed along the centreline of each of the posts.
- 2.7.2.2.3 Each rail or top board shall be fixed to each post with two nails driven in on the skew by hand or mechanical means.
- 2.7.2.2.4 Rails or top boards which split during railing are not permitted. Where splitting of the rails or top boards is encountered, it is recommended that all remaining rails and top boards shall be pre-drilled.

2.7.3 Specialised Horse V Mesh Fence

2.7.3.1 Posts

- 2.7.3.1.1 Intermediate posts for specialised horse wire fencing shall be at least 2100 mm long and a minimum of 125mm diameter (or equivalent area) timber creosoted Octopost (or similar approved see cl 2.7.2.1.1).
- 2.7.3.1.2 For intermediate posts a minimum of 1500 mm shall be above ground and a minimum of 600 mm shall be below ground.
- 2.7.3.1.3 The maximum spacing of intermediate posts shall not exceed 2.7 metres where a top board is fitted.
- 2.7.3.1.4 Strainer posts shall be at least 2700 mm long, and shall be at least 200 mm diameter (or equivalent area) timber creosoted Octopost (or similar approved see cl 2.7.2.1.1).
- 2.7.3.1.5 For strainer posts a minimum of 1500 mm shall be above ground and a minimum of 1200 mm shall be below ground.
- 2.7.3.1.6 Strainer posts shall be spaced at a maximum of 150m.
- 2.7.3.1.7 In soft ground, the strainer length may have to be increased to provide the necessary stability.
- 2.7.3.1.8 Strainers shall be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient.
- 2.7.3.1.9 Where rock or other obstructions are encountered the post shall be set in concrete. The concrete base shall be 750 mm deep for boundary and paddock fencing and 900 mm deep for lunging and turnout areas.

2.7.3.2 Fencing Wire

- 2.7.3.2.1 Horizontal line wires to consist of 2-ply wire of at least 2.7mm diameter diameter high tensile galvanised or zinc / aluminium coating wire, galvanised or zinc / aluminium coating to I.S. E.N 10244-2 (Galvanised to Class A using a Galfan type alloy) steel wires galvanised at 100mm spacing, see drawing A2. Appendix A.
- 2.7.3.2.2 Vertical wires shall have a V formation to create a small opening which does not allow horses or foals to put their legs through or get caught in the wire.
- 2.7.3.2.3 Vertical wires shall consist of at least 2.7mm diameter galvanized steel.
- 2.7.3.2.4 Vertical wires shall be securely wrapped around each horizontal wire run diagonally to make a diamond pattern.
- 2.7.3.2.5 The Specialised Horse wire shall have closely spaced, 50mm x 100mm diamond-mesh construction.
- 2.7.3.2.6 The height of the wire is to be 1.2m and erected on the field side of the post.
- 2.7.3.2.7 The specialised horse wire which shall be fixed to the field side of the fence, shall be brought up from ground level to 25mm min past the bottom of the top board as shown in drawing A3 in appendix A.
- 2.7.3.2.8 The top and bottom members are recommended to be at least 3.5mm diameter galvanised or zinc / aluminum coating steel wires.
- 2.7.3.2.9 Specialised Horse Wire shall be fixed to the posts with galvanised or zinc / aluminium coating staples 5No. at each Post.
- 2.7.3.2.10 To prevent splitting of the post, staples should be driven at an angle and staggered along the length of the post. Staples should not be driven home fully as such staples will inhibit movement of the fencing wire and will damage the galvanised or zinc / aluminium coating.
- 2.7.3.2.11 Staples shall be minimum 40 mm x 3.55 mm round standard or barbed wire to I.S. 105-1. The coating shall comply with I.S. EN 10244-2.

2.7.3.3 Top Boards

2.7.3.3.1 All top boards to be pressure creosoted timber.

2.7.3.3.2 Top boards shall be at least 5400mm long and at least 175 mm x 40mm. The top board shall be located to the field side of the fence posts.

2.7.3.4 Installation

2.7.3.4.1 The maximum spacing of intermediate posts shall not exceed 2700 mm where a top board is fitted.

2.7.3.4.2 If specified in advance by the Iarnród Éireann Engineer, that the top board is to be replaced by 2.5 mm high tensile wire, the intermediate post spacing may be increased to 4m. This must be agreed in writing, in advance, with the Iarnród Éireann Engineer.

2.7.3.4.3 Strainer posts shall be spaced at a maximum of 150m.

2.7.3.4.4 In soft ground, the strainer length may have to be increased to provide the necessary stability.

2.7.3.4.5 Strainers shall be provided at the beginning and end of every length of fencing, at gaps or openings, at every change of direction where the angle is greater than 30° and to accommodate any significant change in gradient. Top boards shall be at least 5400mm long and at least 175 mm x 40 mm.

2.7.3.4.6 Fixing of top boards to posts - Top boards shall be fixed to the field side of the posts. They shall be butt jointed along the centreline of each of the posts. Top boards to be pre-drilled to prevent splitting. Each top board shall be fixed to each post with two 100mm Galvanised Screws, screwed in on the skew by hand or mechanical means. Top boards which split during railing must be replaced.

2.7.3.4.7 The top board shall be located at the top of the fence posts, and the specialised horse wire, as described in clause 2.3.7, shall be brought up from ground level to within 225mm of the top rail.

2.8 Post and Chain-link Fence Specification

2.8.1 General

2.8.1.1 The Chief Engineer's requirements concerning concrete post and Chain-link fencing in addition to all other statutory requirements (Irish Standards, British Standards and any others specified) and other specified requirements, as shown in appendix A, drawing A.6-1 must include the following:

(a) There are to be seven strands of line wire, see appendix A, drawing A.6-1 for positioning of wire.

(b) Chain Link 1500mm High 2.24/3.15mm Galvanised & PVC Coated (RAL6005).

2.8.2 Precast concrete posts

2.8.2.1 Precast concrete fence posts and struts shall conform with the requirements of I.S. 136:1982 in all aspects other than length.

2.8.2.2 The minimum overall length of the intermediate post shall be 1990 millimetres (6 feet, 6 inches). The minimum overall length of the straining post shall be 2270 millimetres. The minimum overall length of the strut shall be 2140 millimetres.

2.8.2.3 Any length of concrete post fencing (including branches or spurs) shall start with a straining post and shall end with a straining post.

2.8.2.4 The spacing between intermediate posts or between an intermediate post and a straining post shall not be greater than 3.0 metres.

2.8.2.5 On straight lengths of fence, straining posts shall be spaced at a distance not greater than 70 metres. In these cases the wire must be tensioned at these posts using ratchets, then continue the fencing with another length of 70m.

2.8.3 Fencing Wire

2.8.3.1 The galvanising shall comply with I.S. EN 10244-2 (Class A) and B.S. 443 : 1982. The line wire shall consist of 10 s.w.g. (3.15 millimetre diameter) high tensile steel wire complying with I.S. 126:1982.

2.8.3.2 The line wire shall pass through each of the holes in the post.

2.8.3.3 Eye bolt strainers shall consist of bolts of 250 mm overall length and not less than 9.5 mm diameter with a welded eye at one end. They shall be threaded and fitted with nuts and washers.

2.8.3.4 Two-way eye bolt strainers shall be fitted with ring nuts. Eye bolt strainers shall be hot dipped galvanised in accordance with BS 729:1971 (1994) with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).

2.8.3.5 Winding brackets intended for attachment to a post shall be manufactured from mild steel flat not less than 45mm x 2mm and shall be fitted with a winding bolt of 12 mm minimum diameter and with a friction type ferrule or ratchet winder. One end of the winding bracket shall be provided with a hole for the attachment of the bull wire.

2.8.3.6 Winding brackets, fixing bolts and nuts shall be hot dipped galvanised in accordance with BS 729 : 1971 (1994) with a minimum average coating weight of 610 g/m² (or minimum average coating of 85 microns).

2.8.3.7 The Contractor shall ensure that connectors are designed to match the diameter and type of bull wire used. One connector is adequate for terminating a bull wire at a straining post, two connectors are required to join two bull wires in a continuous run.

2.8.3.8 Chain-link shall meet the following requirements: Chain-link fencing wire shall comply with BS443. Chain-link to be galvanised and PVC Coated (RAL 6005). The galvanising shall comply with I.S. EN 10244-2 (Class A or Class B using Galfan alloy). Chain-link wire shall consist of 2.24/3.15mm diameter wires. The Chain-link fence shall be 1500mm high and the maximum mesh aperture shall not exceed 50mm x 50mm.

2.8.3.9 Chain-link shall be fixed to the concrete post bull wires adequately with stirrup wire. The Chain-link is to be fixed to the field side of the fence. Tying wire shall be 1.6 mm diameter galvanised mild steel wire to I.S. 126. The galvanising shall comply with I.S. EN 10244-2 (Class A).

2.8.4 Foundations

2.8.4.1 Concrete for surrounding the bases of posts and struts shall be 20N20 Ready-mix. The concrete shall be placed in position before the commencement of the initial set. The contractor must make available concrete sample for cube test if requested by IE Engineer at any stage.

2.8.4.2 Excavated holes for posts and struts shall have vertical sides except that it shall be permissible for the side of a strut hole adjacent to the post to be sloped.

2.8.4.3 The following are the minimum sizes of excavated holes for each post and strut:

Straining post	-	900mm deep x 450mm square
Intermediate post	-	600mm deep x 300mm square
Strut	-	750mm x 300mm x depth to suit (min 450mm)

2.8.4.4 After insertion of the post or strut, the hole shall then be filled to the top with concrete (As specified above in section 2.8.4.1), which shall be well rammed as the filling proceeds. After the concrete has hardened, the concrete shall be covered with an approved good quality material which shall be finished proud of the surrounding ground.

2.8.5 Erection

2.8.5.1 The fence shall be erected so that on completion the posts are located along the designated fencing line and the tops of the posts follow a smooth alignment. The finished fence shall follow approximately the profile of the ground. The top of the fence shall follow approximately the level of the ground along the line of the fence. The finished fence shall be true in line and the tops of the posts shall show a smooth form.

2.8.5.2 Straining posts shall be provided at all ends and corners and at changes of direction or acute variations in level.

2.8.5.3 Struts shall be fitted to all straining posts in the direction of each line of fencing.

2.8.5.4 Intermediate posts shall be provided at intervals, measured centre-to-centre of posts, not exceeding 3.0 metres.

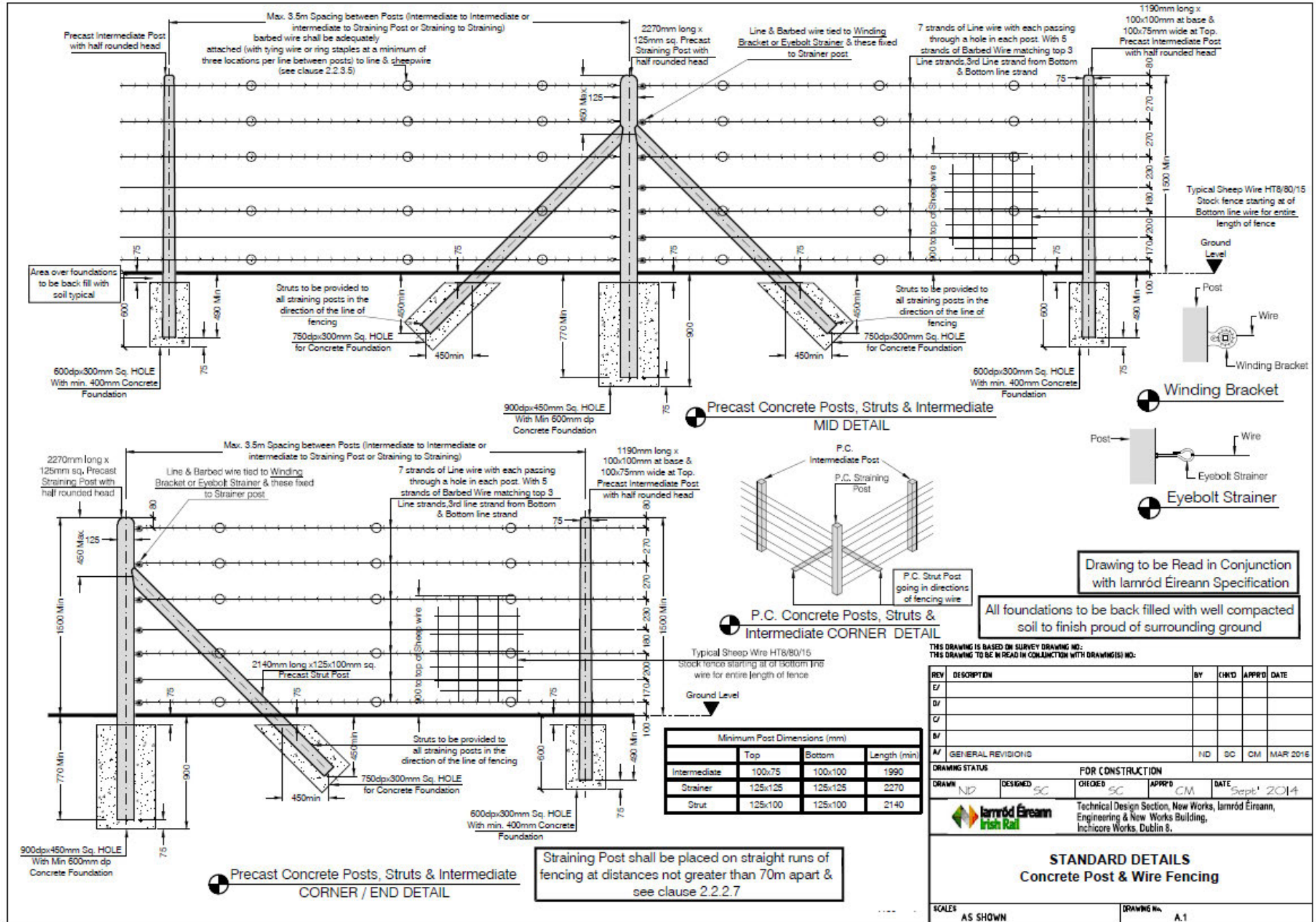
2.8.5.5 When erecting a strained wire fence, straining posts shall first be sighted and set. At corner posts, struts should be positioned in line with the fence and in the direction of the thrust exerted by the completed fence. When the straining posts are set, the lowest wire in the fence should be attached and lightly strained to enable the position of the intermediate posts to be located. The bottom wire shall then be slackened and the holes for the intermediate post dug. After re-straining the bottom wire the top wire shall be attached and also strained. During straining the top wire shall be propped to lessen the pressure caused by sagging. The intermediate posts shall then be set in the ground using both the strained wires and a boning rod as a guide. Following this, tension of the wires shall be tested by drawing the wires down into the hollows and away from the posts. When the required tension is obtained the wires shall be attached to the intermediate posts.

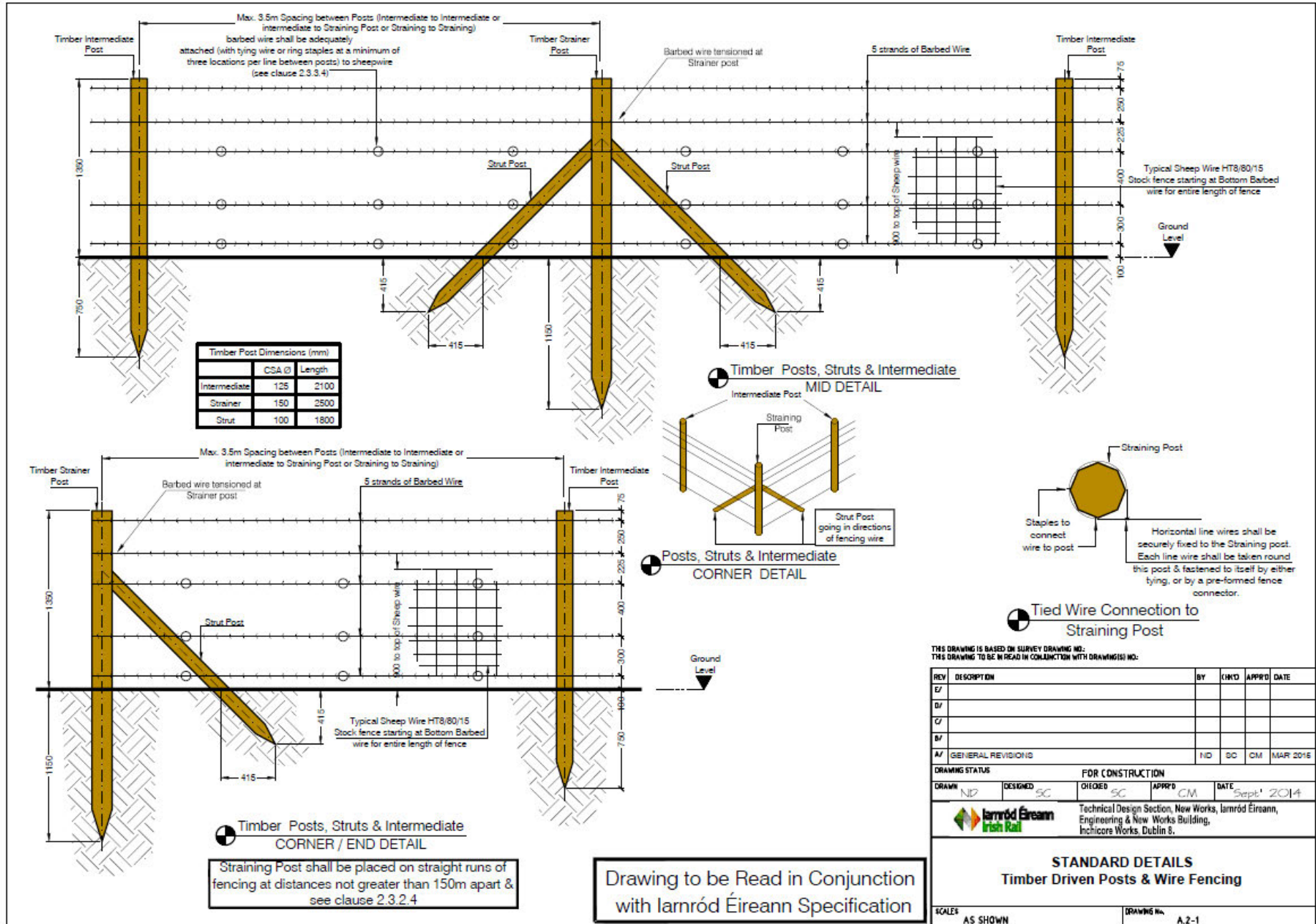
3 Revision History

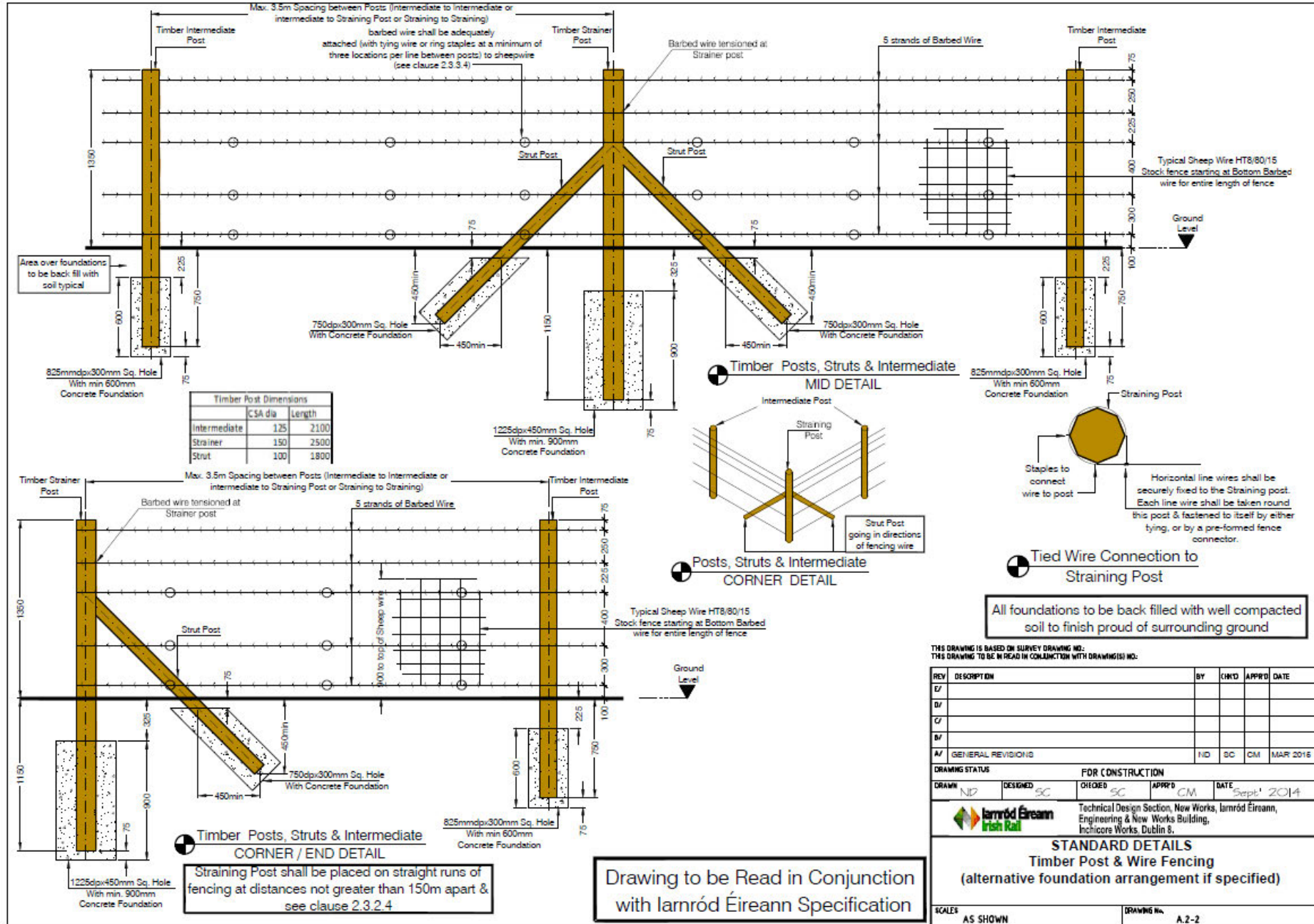
Version No and Date	Section No and Reason for Change
1.0 – 11 March 2014	New document, replacing all existing fencing specifications.
1.1 – 15 October 2014	Includes standard detail drawings for all fence types Concrete Post and Chain link included.
1.2 – 30 March 2015	Minor amendments and clarifications to clauses and drawings.
1.3 – 07 July 2015	Minor amendments to clause 2.1.1.4 and clauses 2.1.2.7-2.1.2.9 (removal of ecoplugs reference). Amendments to Section 2.6 Deer Fencing (clause 2.6.1.2, clause 2.6.2.8 and clause 2.6.3.1 amended, clause 2.6.1.3 removed).
1.4 – May 2019	Review of document undertaken to ensure fitness for purpose with regard to the type, quality and standard of fencing being used

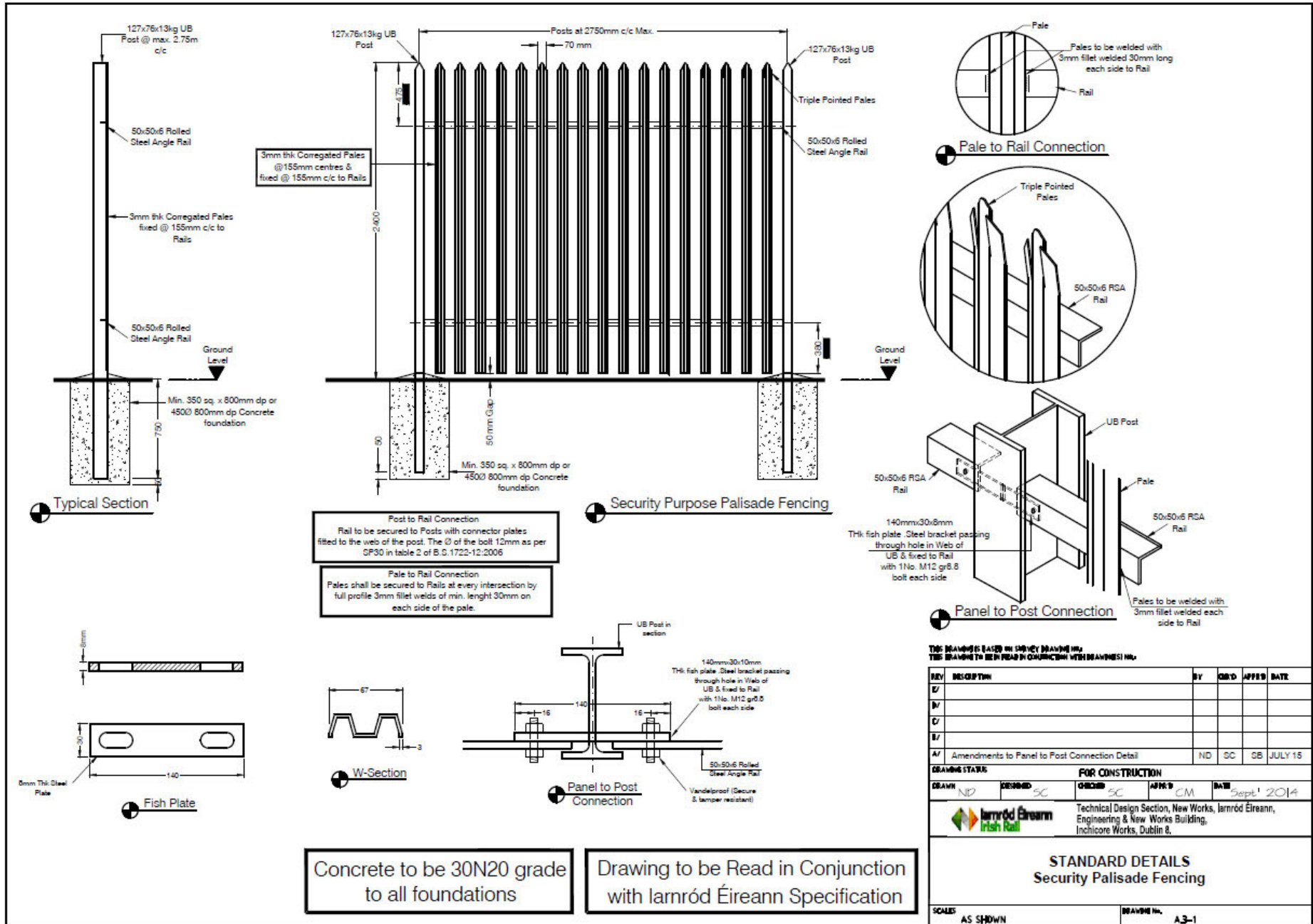
End of Technical Specification

Appendix A Fencing Standard Details









Concrete to be 30N20 grade to all foundations

Drawing to be Read in Conjunction with Iarnród Éireann Specification

THIS DRAWING IS BASED ON SURVEY DRAWING NO. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO.

REV	DESCRIPTION	BY	CHK'D	APPR'D	DATE
E/					
D/					
C/					
B/					
A/	Amendments to Panel to Post Connection Detail	ND	SC	CB	JULY 15

DRAWING STATUS

FOR CONSTRUCTION

DRAWN	DESIGN	CHECKED	APPR'D	DATE
ND	SC	SC	CM	Sept' 2014

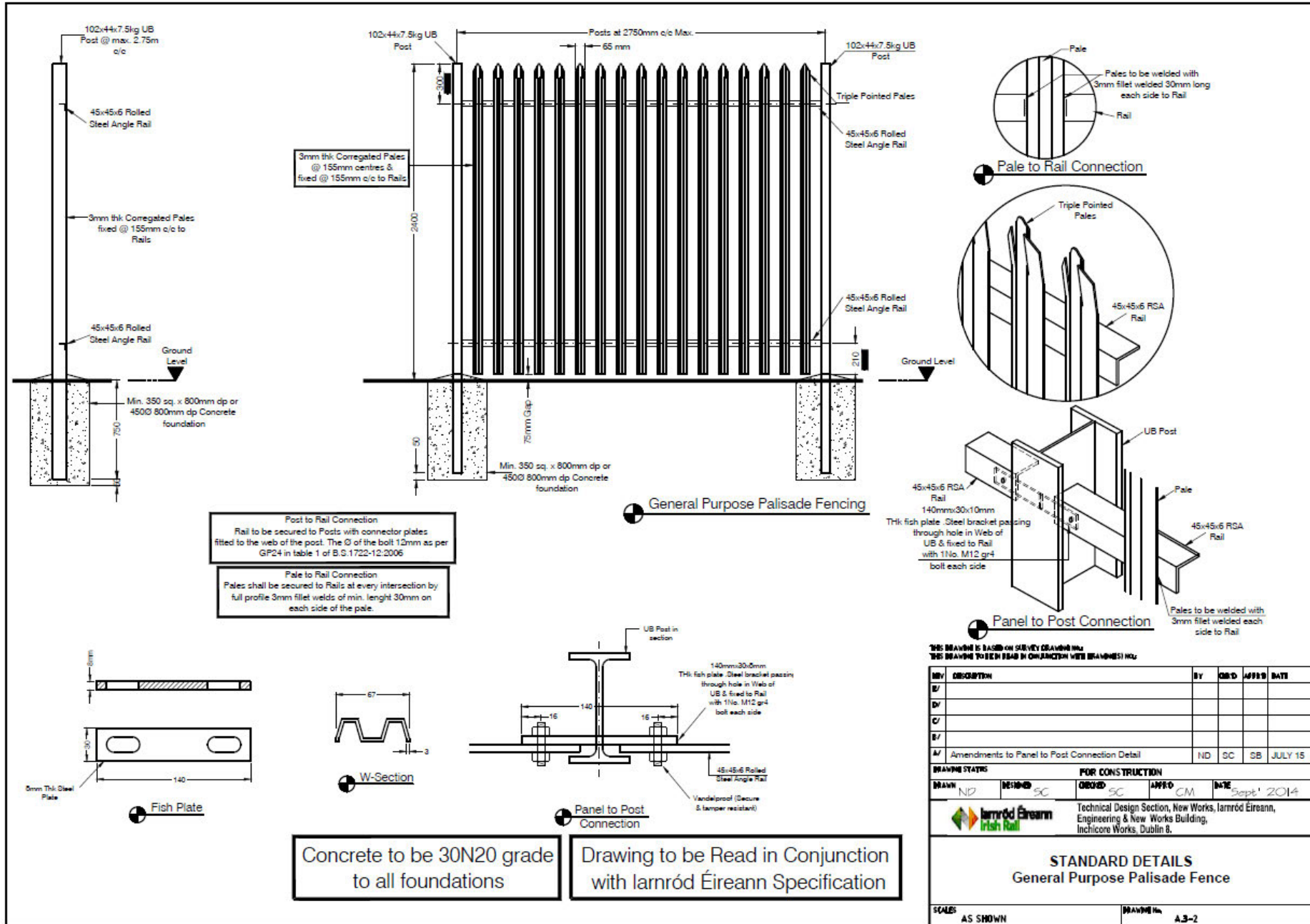
Iarnród Éireann
Irish Rail

Technical Design Section, New Works, Iarnród Éireann, Engineering & New Works Building, Inchicore Works, Dublin 8.

STANDARD DETAILS
Security Palisade Fencing

SCALE: AS SHOWN

DRAWING No. A.3-1



Rectangular Wire Mesh HT17/190/15

H Frame Straining Post 225Ø

See Clause 2.6.5.3 for Tensioning wire details

2m High Minimum

Ground Level

Area over foundations to be back fill with soil typical

H Frame Horizontal Strut 125Ø fixed to straining post by either Rebated Joint or Galvanised Steel Rods.

900dp×450mm Sq Concrete Foundation

Deer Proof Fencing H Frame / Straining Frame

Rectangular Wire Mesh HT17/190/15

Posts at 3.5m c/c max.

2m High Minimum

Ground Level

Intermediate Post 125Ø

150° 150°

600dp×300mm Sq Concrete Foundation

Deer Proof Fencing

All foundations to be back filled with well compacted soil to top of ground level

Drawing to be Read in Conjunction with Iarnród Éireann Specification

THE DRAWING IS BASED ON SURVEY DRAWING No. THE DRAWING TO BE READ IN CONJUNCTION WITH DRAWING No.

	Length	CSA
Intermediate	3000mm	125mmØ
Vertical Post in H Frame	3000mm	125mmØ
Horizontal Post in H Frame	2100mm	125mmØ
Straining Post	3000mm	225mmØ

Intermediate posts at 3.5m c/c Maximum Reduced for rough terrain

Foundation Depth	1000mm Min.
------------------	-------------

Mesh Hinge Joint

Mesh Lock Joint (tight)

Galvanised Steel Rod Connector through vertical post & into centre of horizontal post

H Frame Horizontal Strut 125Ø in background shown hidden

H Frame Straining Post 225Ø

Rebated Joint

H Frame Horizontal Strut 125Ø

H Frame Straining Post Vertical 225Ø

H Frame Wire Connection

Staples to connect wire to post

Horizontal line wires shall be securely fixed to the outer post of the H Frame. Each line wire shall be taken round this post & fastened to itself by either tying, or by a pre-formed fenced connector.

FOR CONSTRUCTION

REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
E/					
D/					
C/					
B/					
A/	Amendments to post spacing, mesh specification & Mesh joints added	ND	SC	SB	JULY 15

DRAWN	DESIGNED	SC	DESIGNED	SC	APP'D	DATE
ND	SC	SC	CM	ND	Sept' 2014	

Iarnród Éireann Irish Rail

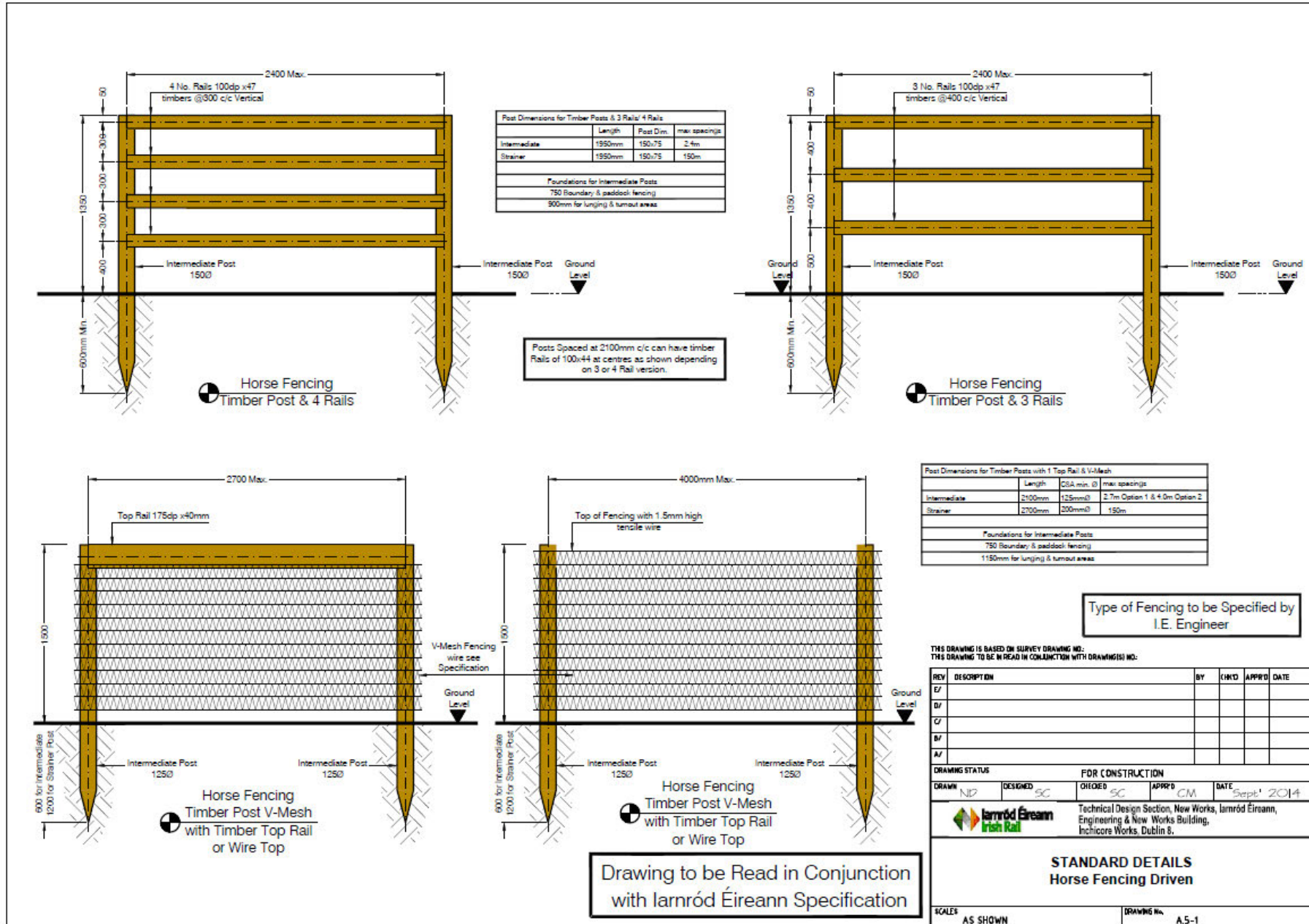
Technical Design Section, New Works, Iarnród Éireann, Engineering & New Works Building, Inchicore Works, Dublin 8.

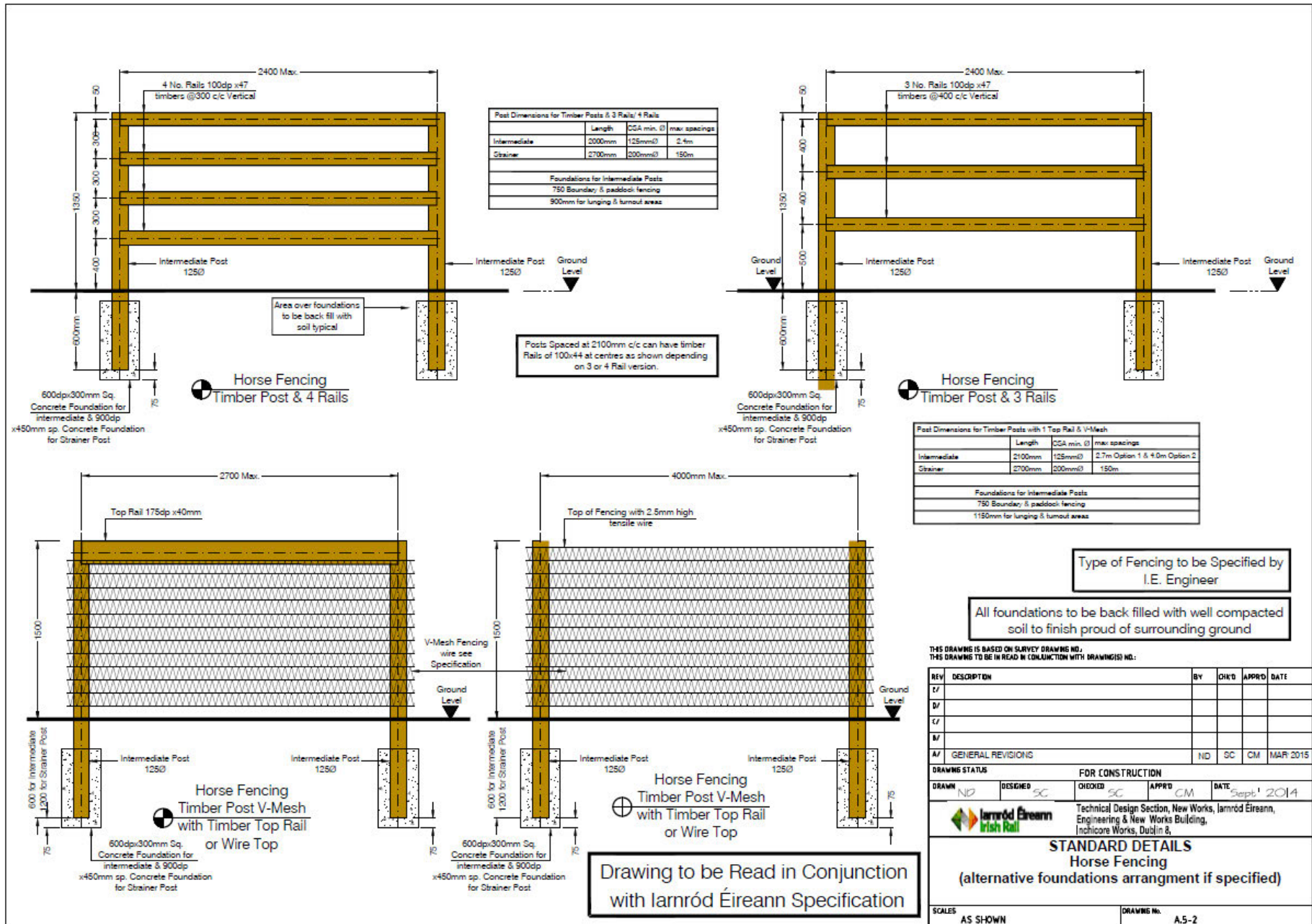
STANDARD DETAILS

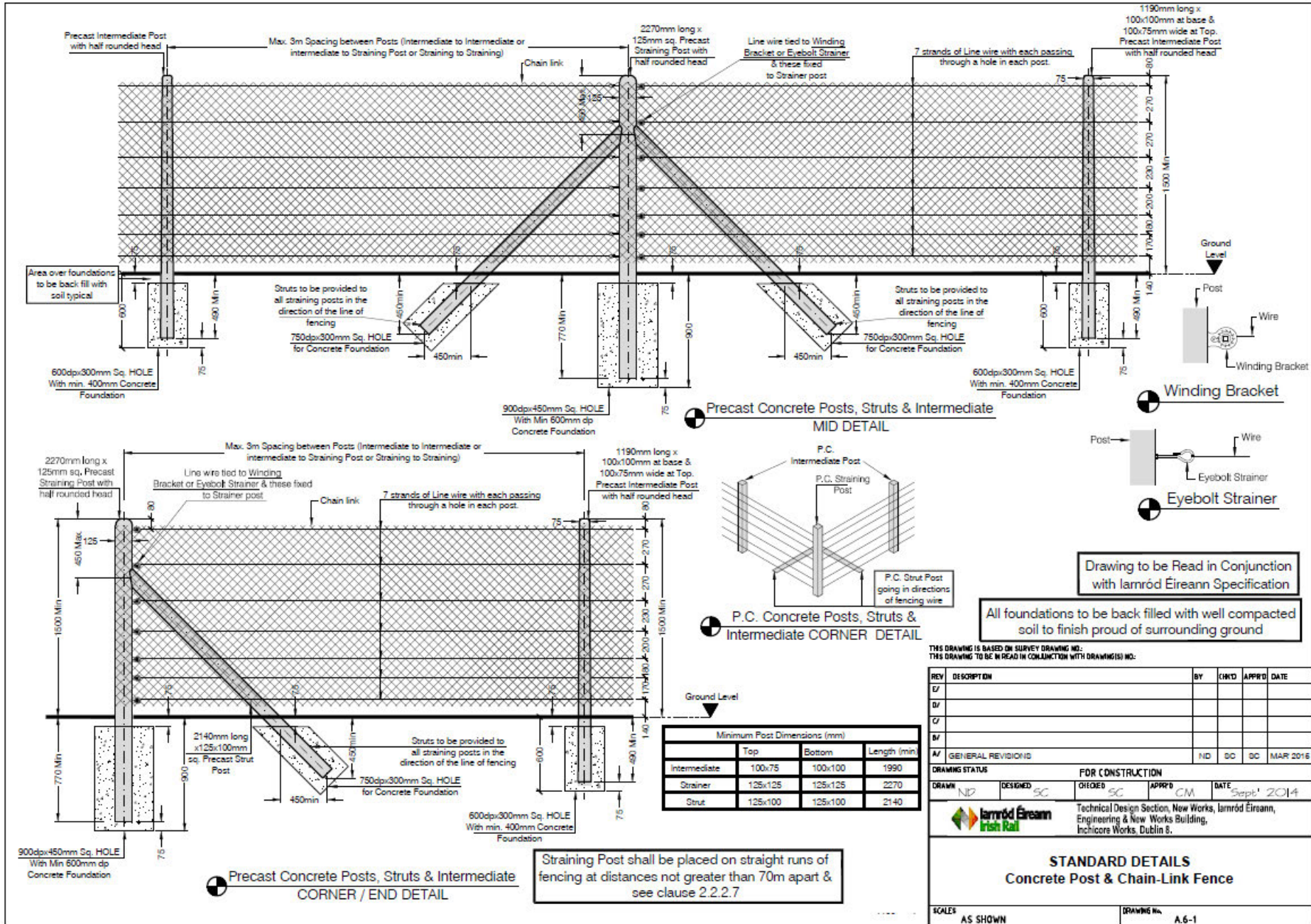
Deer Proof Fencing

(alternative foundations if specified)

SCALE: AS SHOWN DRAWING No. A4-2







INSTRUCTIONS ON USE OF SITE AND RAILWAY SAFETY

1. Restrictions due to Railway Operations

- 1.1 Most works will be situated close to main railway lines with trains operating throughout the day and night. The dangers of working near the railway are in addition to those encountered elsewhere. In particular it should be noted that trains can be passing at speeds up to 100 mph, and that all works **must** be carried out in such a manner that the railway is maintained in a safe operating condition at all times
- 1.2 No item of plant, machinery or their appendices i.e. crane jibs, buckets of J.C.B.s etc. while stopped, moving or working may come within a distance of 3 metres of the running edge of any railway line which is open to traffic without the Charge-hand obtaining the permission of IE's Contact Person.
- 1.3 Tools and materials must be at least 2 metres from the nearest rail during the passing of trains.
- 1.4 Personnel must move to, and remain in, a designated "Position of Safety" when a train is approaching / passing; in any event personnel shall remain at least 1.5 metres from the nearest rail during the passing of a train. .

2. Overhead Electric Wires

- 2.1 IE's Overhead Line Equipment ("O.H.L.E.") is electrified at 1500 volts D.C. and is dangerous to human life.
- 2.2 Contractor's personnel shall observe the following precautions with respect to the O.H.L.E:
 - (a) it must be assumed that the O.H.L.E is live at all times and that all contractor's Personnel shall keep at least 1.0 meter (three feet) from any part of the O.H.L.E that is live. ("Prohibited Space");
 - (b) work must not be carried out, or cranes or other plant erected, operated or dismantled, or materials stored without the Charge-hand obtaining the agreement of [IE's Contact Person];
 - (c) when the Contractor's Personnel are handling tools or materials adjacent to the Prohibited Space then the Prohibited Space shall be increased by the length of any tool or material being handled. However, normal work on the track, station platform, walkways and the like, below the equipment is permitted without special precautions, provided that tools or equipment are not at any time raised above head height;
 - (d) [when scaffolding is being erected or dismantled that can encroach on the Prohibited Space, the Charge-hand shall seek the approval from

IE's Contact Person as a permit to work will be required ("Permit to Work");

- (e) portable ladders used in the vicinity of the O.H.L.E shall be of timber or other non-conducting material and shall not be reinforced by metal attachments running along the stiles of the ladders. Ladders can lead to serious shocks if allowed to come close to the O.H.L.E and therefore, special precautions must be taken to ensure that the ladder cannot slip and encroach on the Prohibited Space; and
- (f) any disturbances of or attachment to any equipment forming part of the O.H.L.E must only be carried out if the Charge-hand has received the approval of IE's Contact Person.
- (g) Debris produced when trimming or felling trees or from demolitions etc must not fall or be projected onto the prohibited space.
- (h) If a crane or other equipment is being used, crane stops, fencing, warning notices etc shall be provided by the Contractor to ensure that there can be no encroachment on the prohibited space by the crane, its load or other equipment even if the crane load or equipment slips, falls or overturns.

When IE's Contact Person considers it is impractical to comply with any of the above requirements he will arrange for special precautions to be taken and will inform the Charge-hand of same.

2.3 It is the responsibility of the Contractor when "Permit to Work" is issued to:

- (a) confirm immediately to IE's Contact Person his understanding of the limits of isolation;
- (b) ensure that the Contractor's Personnel fully understand the limits of the isolation;
- (c) ensure that no work is commenced within the limits of isolation unless and until the Permit to Work has been issued; and
- (d) ensure that on completion of the work requiring the isolation all Contractor's Personnel withdraw from the protected area and that IE's Contact Person is informed that the Permit to Work can be withdrawn.

3. Possessions

3.1 Rail traffic ceases to operate over a given stretch of railway line when IE's Contact Person takes a possession of that line ("Possession"). The Contractor shall note that all railway lines must be assumed to be open to railway traffic unless IE's Contact Person clearly indicates to the Charge-hand that a Possession has been taken of a particular line for a particular period. In the case where a Possession has been taken, IE's Contact Person will inform the

Charge-hand that work may be carried out alongside the line. It is important to note that engineering trains, locomotives and on-track machines may still run during a Possession.

3.2 Possessions are of two types:

- (a) TII Possession - these possessions are periods given between normal train operations and do not normally involve diversions or cancellations of trains. They are given where work is to be carried out close to a line without interfering with the track itself, and are given on the basis that the work can be stopped and the Possession cancelled at any time to allow a train to pass.
- (b) TIII Possessions - these possessions are periods when normal train operations over a given stretch of track are cancelled for a period, and may involve diversion or cancellation of trains.

4. On Site Safety Requirements

4.1 The following safety precautions are required to be taken by all Contractor's Personnel:

- (a) Train drivers' views of signals, signs, notices, etc. must not be obstructed in any way, for any reason during the progress of the works.
- (b) All precautions are to be taken to ensure that no damage or accidental disconnections occur to the signals, signal control or to telephone cables etc. The location of the signal control cables will be pointed out to the Charge-hand by the Contractor's Personnel and no interference whatsoever is allowed to these.
- (c) At no time are machines to be driven over the railway tracks without the Charge-hand obtaining the permission of IE's Contact Person. When lookout protection is in place all Contractor's Personnel must comply with the procedures as stated during Personal Track Induction training.

4.2 When a train approaches the site or when instructed to do so by a look-out man all, Contractor's Personnel on or near the railway tracks must adhere to the following:

- (a) Move to the pre designated place of safety that has been indicated to the Charge-hand by IE's Contact Person.
- (b) Put down all tools clear of the line, 2 metres
- (c) Acknowledge the audible warning given by the train crew by raising one arm above the head.

- (d) Only when IE's Contact Person has indicated to the Charge-hand that it is safe to resume work, work may be resumed. In particular, care should be taken before resuming work that another train is not approaching on another line. It should be noted that at times trains may approach in either direction on either track.

5 Health and Safety

- 5.1 All Contractor's Personnel will be required to wear orange high visibility vests/jackets at all times: [these will not be supplied by IE]. The words "Contractor" or the actual contractors name may be printed on the back. The signing of the printing to be such that it does not interfere with the effectiveness of the vest or jacket or the reflectorised stripes. Any Contractor's Personnel found not to be wearing an orange high visibility jacket on site will be instructed to leave the site forthwith. Contractor's Personnel must not wear red or green clothing, or red or green helmets.

All Contractor's Personnel, must wear personal protective equipment, which shall include steel toe capped footwear, hard hats, ear defenders, safety masks, safety goggles etc. [and as outlined in the relevant Safety Statement issued in connection with the works]. Failure by the Contractor's Personnel to comply with this instruction will result in their removal from the site.

- 5.2 All staff to be employed by the Contractor must be in possession of an up to date Safe Pass card when undertaking work on a Construction site under the Safety, Health & Welfare at Work (Construction) Regulations 2006, as the Railway is deemed a construction site.

All staff to be employed by the Contractor, including Supervisors shall attend an induction Personal Track Safety (PTS) course in safe railway work practice prior to the commencement date.

Code of Conduct for Suppliers & Business Partners

Iarnród Éireann – Irish Rail

Procurement & Materials Department
Inchicore Railway Works
Dublin 8
IRELAND

January 2008

1. Guiding Principles

The guiding principles governing our employees relationship with our Business Partners,¹ which are detailed in the CIÉ Group Code of Business Ethics for Employees, include;

1. Integrity
2. Confidentiality of information
3. Legality
4. Disclosure of Interest
5. Loyalty
6. Fairness
7. Consideration for work/external environment

These principles apply equally to our Business Partners. The purpose of this document is to inform our Business Partners of Iarnród Éireann expectations of in relation to conducting business or seeking to conduct business with Iarnród Éireann.

2. Basis of purchasing decisions

Purchasing decisions and contract awards are made **solely** on the basis of the offers submitted, in accordance with the award criteria for the particular tender or request for quotation. At all times any impropriety, or even the perception of any impropriety, must be avoided.

3. Responsibilities of our Business Partners

Iarnród Éireann's Business Partners are required to comply with this Code of Conduct for Suppliers and must ensure that all of their employees, sub-contractors, and agents, who come in contact with Iarnród Éireann are made aware of, and comply with this Code of Conduct. The Statement of Commitment (see Appendix 1) must be signed off by all Business Partners who conduct or wish to conduct business with Iarnród Éireann.

4. Main Requirements.

a. Bribes, Kickbacks and Commissions

- These are PROHIBITED.
- They may not be given, received, offered or solicited; whether directly or indirectly through a third party.

b. Gifts and Hospitality

- Gifts are not necessary nor are they expected
- Where gifts are given, they should be infrequent and of nominal value. Under the Iarnród Éireann Employees Code of Business Ethics the maximum total value of gifts that can be accepted by an Iarnród Éireann employee is €65.
- In the event of gifts of higher value (e.g. Christmas Hampers) being received by employees, it is company policy that the employee advises their supervisor or manager and returns the gift.
- Iarnród Éireann employees are prohibited from soliciting gifts or favours from Business Partners and any such requests should be advised to Iarnród Éireann (see 4g below).

¹ Defined as suppliers, contractors, service providers and consultants (including their employees, servants, agents and sub-contractors)

c. Hospitality

- Hospitality should be modest and appropriate to the business situation
- The provision of overnight accommodation, overseas travel, motor vehicles or use of motor vehicles is PROHIBITED.
- Meals may be provided in the business context, such as when an employee is on a visit to a business partners premises, but they should not be lavish or overly expensive or frequent.
- Employees are obliged to report all offers of hospitality to their supervisor

d. Conflict of Interest

- Iarnród Éireann employees and Business Partners must avoid any situation that is, or may be perceived as, a Conflict of Interest.
- Iarnród Éireann employees must represent Iarnród Éireann's best interests and both the employee and the Business Partner are required to disclose the following
 - Any close relationship that could affect the business relationship or a business decision
 - Any common business interests
 - Close family ties with persons who can influence the business decision.

e. Use of Coras Iompair Éireann / Iarnród Éireann name or logo

1. Business Partners may not use the names or logos of Coras Iompair Éireann or Iarnród Éireann without prior specific written permission of the Company Secretary.
2. This is dealt with in detail in our Conditions of Contract.

f. Attempt to canvass or influence a Purchase Decision

1. Any improper attempt to influence a purchasing decision or to canvass can, and will, lead to exclusion from the tender process and other actions.
2. This is dealt with in detail in our Conditions of Tender.

g. Confidentiality and Reporting

1. Business Partners are required to report concerns regarding ethical issues or violations of this Code of Conduct by an employee of Iarnród Éireann, by their employees, or by a third party to:
 - The Head of Internal Audit, CIE Group, Áras Éanna, 60 Gardiner Street Lower, Dublin 1
 - Or
 - The Chief Financial Officer, Iarnród Éireann, Connolly Station, Dublin 1
 - Or
 - Group Chief Financial Officer, CIE, Heuston Station, Dublin 8
2. Preferably in writing
3. Signed is preferable and confidentiality will be assured, but anonymous claims will also be investigated.
4. If you make a signed report, and do not get a prompt acknowledgement and response, please contact the Chief Executive Officer, Iarnród Éireann, Connolly Station, Dublin 1 directly.
5. If you require direction or advice in respect on any aspect of the Code, please contact the Manager, Procurement & Materials, Iarnród Éireann, CIE Works, Inchicore, Dublin 8. {Telephone (+353) 1 7033714}.

h. Consequences

1. Iarnród Éireann will treat substantiated contraventions of this Code of Conduct as a serious matter.

i. Contracts / Purchase Orders

1. It is Iarnród Éireann's policy and practice to issue an official purchase order prior to supply of materials or services or the commitment of resource by a supplier
2. In addition, for major contracts, a formal contract must be executed by the parties prior to commencement.
3. Invoices will not be processed without a valid purchase order
4. Accurate records (timesheets, delivery notes, etc.) must be kept and produced on request – falsification of records is PROHIBITED.
5. Iarnród Éireann pays only on verified receipt of goods, works or services.

j. Drugs and Alcohol Policy

1. Suppliers and business partners are bound by the Iarnród Éireann's Drugs and Alcohol Policy
2. The policy seeks to prevent accidents or damage to property , arising through oversights and errors of judgement as a result of the consumption of alcohol or drugs by staff, or Business Partners
3. Working on Iarnród Éireann property under the influence of alcohol or drugs is strictly prohibited.
4. Suppliers and service providers must ensure that all of their staff who work on Iarnród Éireann sites are familiar with this policy on drugs and alcohol and have systems in place to ensure that their employees abide by the policy.
5. Random testing of staff, suppliers, contractors and service providers will be undertaken and action taken against any staff member or supplier found to be in breach.

5. Summary

It is Iarnród Éireann's objective that all our business is conducted with uncompromising fairness, integrity and professionalism; with

- Strict compliance with the legal requirements of Irish and EU law
- Fair and open competitions
- Neither actual, nor perceived, conflict of interest.

Appendix 1

Statement of Commitment to Iarnród Éireann Code of Conduct for Suppliers and Business Partners

We, (NAME OF COMPANY) _____

ADDRESS: _____

Undertake to fully implement the requirements in this Code of Conduct for Suppliers and Business Partners in respect of all our dealings with Iarnród Éireann and Coras Iompair Éireann.

We understand that the Code applies to our employees, agents and sub-contractors.

We confirm our acceptance of the Iarnród Éireann Drugs and Alcohol Policy.

We understand that breaches of this Code may lead to our organisation being excluded from participation in future tenders.

SIGNATURE: _____ DATE: _____

POSITION IN COMPANY: _____

NAME (Please print): _____ TEL: _____

POSITION: _____

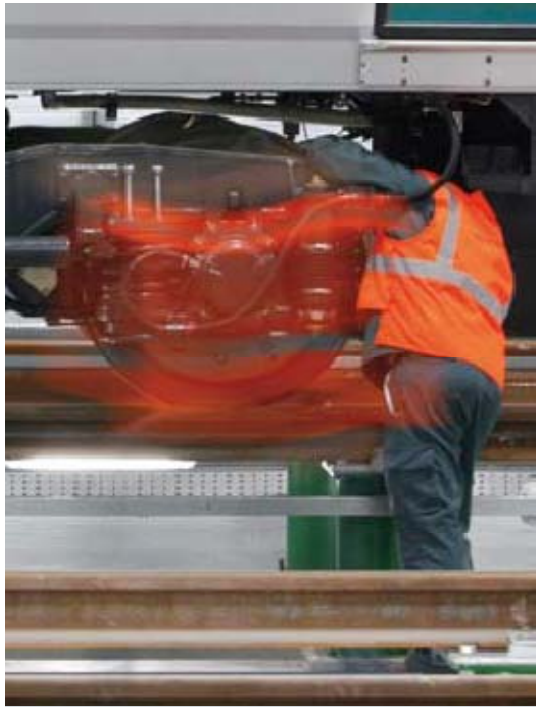
Signed (Director or Company Secretary): _____

Name (in BLOCK CAPITALS): _____

Date: _____

AFFIX Company Stamp

Please return this signed and completed page with your tender.



 **Iarnród Éireann** Drugs & Alcohol Policy





Iarnród Éireann Drugs & Alcohol Policy

Drawn up in consultation with organisations representing staff as required by section 88 of the Railway Safety Act 2005

1. Why the policy exists



Drugs and alcohol can affect our behaviour and how we perform everyday activities and our work. They can have immediate effects in the minutes, hours and days after being consumed. In addition, longer term dependency can result, with a continuous impact on our work and our relationships with colleagues, friends and family.

Every one of our actions depends on messages from the brain. Drugs and alcohol can delay and distort these messages. Being under the influence of alcohol or drugs whilst in a work environment, or hazardous location, has serious consequences for our own safety, the safety of those around us and those who depend on us. Long term dependency can distort our perceptions of risk and our priorities.

Iarnród Éireann consists of several thousand people. We operate a complex mechanism upon which our customers make many millions of journeys every year. We interface with members of the general public on trains, at stations, level crossings and a whole range of other places and in a whole range of ways. These people all place their trust in us that we will look after them safely. They have limited knowledge, and virtually no control, over how we behave. Every one of us have a duty of care to exercise absolute vigilance in how we carry out our work, whether it be directly controlling trains, carrying out maintenance or construction, communicating messages planning work, monitoring or supervising colleagues.

Drugs have a very important place in the treatment of illness, from simple over the counter remedies to complex prescription and very special therapeutic drugs.

Iarnród Éireann must have a clear policy describing how we will manage the impact of drugs and alcohol on ourselves, our colleagues and our work place. That policy must identify the appropriate rules, both legislative and self imposed. It must clearly explain the processes for invoking those rules, and the subsequent actions, identifying who must carry them out. It must make clear the obligations of all those involved, and their balancing rights. Whilst taking cognisance of our primary duty of care to all those affected by our operations, the policy must also explain how we will implement our broader responsibility to provide appropriate medical support and counselling to those of us who need help.

2. Scope of the policy

The Railway Safety Act 2005 defines particular activities as Safety Critical. Any persons carrying out such activities, whether a direct Iarnród Éireann employee, contractor, sub-contractor or unpaid volunteer, is defined as Safety Critical and is subject to the provisions of the Act, including those pertaining to Drugs and Alcohol, and the testing thereof. Whilst their core job may not be so defined, there are many persons in the Iarnród Éireann organisation who may be called upon to carry out Safety Critical activities at short notice and outside of their normal job. As an example, all employees when travelling by train are required to make their services available to the train crew to assist in an emergency. Within the limits of our individual competencies, we could be called upon to carry out safety critical tasks.

Safety Critical Duties are defined in the Railway Safety Act 2005 as:

Driving a train, or in any other way controlling or affecting the movement of a train.

Controlling, affecting or managing, the movement of persons on a train, on a platform, across a level crossing, or, the boarding of, or alighting from, a train of persons.

Working in a maintenance capacity (as identified below) or as a supervisor of, or look-out for, persons working in such capacity.

A person works in the course of the operation of a railway undertaking in a maintenance capacity, if his or her work in the operation involves installation, repair, alteration or inspection of, railway infrastructure or trains, or involves coupling or uncoupling trains or performing a pre-departure examination of trains.

In addition, our Rule Book and Health and Safety at Work legislation both prohibit persons from reporting for duty under the influence of alcohol or drugs.

In recognition of these facts, in the interests of a fair distribution of responsibility and acknowledging the function of this policy in identifying and providing help to colleagues who may have a problem with alcohol or drug use, this policy will apply to all Iarnród Éireann staff, contractors and their sub contractors.

3. Objectives of the policy

The following objectives have been identified:

To prevent injury or death to customers, colleagues or visitors arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.

To prevent damage to, or the destruction of, the organisation's assets or equipment, or the property of customers, colleagues or visitors arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.

To ensure the welfare of colleagues, their families, friends and the wider community, where such welfare is compromised by an Iarnród Éireann staff members consumption of drugs or alcohol.

To guard against reduced performance by the organisation, either in terms of business opportunity or work execution, arising through oversights, errors of judgement or other effects of the consumption of alcohol or drugs by Iarnród Éireann staff or their service providers.



4. Lifestyle Management

It is the intention that every person in Iarnród Éireann, and our providers, will assume an ownership role of this policy. A policy such as this has a

potentially serious impact on our lifestyle both at work and leisure. If this were not so, it would be a failure. As such, every person who understands its significance for their welfare has assumed an ownership role. However, a policy of this type cannot be managed by a committee of thousands. It must have an owner, a nominated person or group who will receive suggestions and lessons from its implementation and who will agree to review it periodically to test its ongoing relevance and effectiveness.

During its preparation, that ownership rested with a small committee comprising representatives of the Trade Union organisations, the Chief Safety & Security Officer, the Chief Medical Officer, the Training Manager, and representatives of the Operations Department, the Human Resources Manager and the CIÉ Solicitor. For the purposes of its ongoing management, ownership of this policy shall be the responsibility of the Chief Safety & Security Officer. The CS&SO may decide to convene an appropriate consultative committee from time to time to provide advice.

5. Responsibilities of Senior Management

Senior Management are expected to endorse and support this policy through an understanding of its content and an application of the appropriate Railway Safety Standard.

They must provide support to their line managers to enable them to act decisively and with confidence in minimising risk to persons or property.

They must promote local campaigns to raise awareness of the risks associated with alcohol or drugs use and of the help available.

They must ensure that line managers have the skills and training necessary to recognise and manage colleagues who may be at risk, including the skills required to raise the topic in an effective but non-embarrassing or insulting manner.

They should know how to arrange medical assistance and counselling.

They must lead by example in terms of their own behaviour when on duty, on or about the railway or available on-call.

They must ensure that their line managers can make appropriate provisions for on-call availability such that colleagues may enjoy a realistic and predictable level of social activity.

They must ensure that contingencies are in place so that the requirements of this drugs and alcohol policy are not compromised by staff having to report at short notice.

They should ensure, wherever possible, that colleagues who have, upon identification of a problem, progressed through a recognised rehabilitation process be facilitated in a manner that is compatible with their career aspirations whilst ensuring that risk is not thereby introduced into our operations.

They must ensure that an open and non-discriminatory environment is created, encouraging a culture of voluntary disclosure, including that of medically prescribed, or over the counter, drugs.

6. Responsibilities of Line Management

They must ensure that staff, contractors and sub-contractors and anyone else under their control, are suitably advised and reminded of the content of this policy and of legislation, standards and other documents pertaining to the subject.

They must prevent any individual under the influence of alcohol or drugs from commencing, or remaining on, duty.

They must implement drug or alcohol testing as determined in the mandated standards.



They must respect the right of every individual to be treated with dignity and confidentiality, regardless of their immediate symptoms or any observations of their colleagues.

They must co-operate in the conduct of any random testing at locations, or of persons, under their control.

They must ensure the continued monitoring of colleagues who have returned to work after rehabilitation, in accordance with appropriate standards.

7. Responsibilities of Human Resources Management

Human Resources Managers will be responsible for ensuring that all new employees are made aware of this policy during induction and that all existing employees are informed of the requirements of this policy.

They will provide training to line managers in the relevant areas associated with drugs and alcohol use so that line managers are sufficiently capable of implementing this policy in a fair and balanced way throughout the organisation.

They will arrange sufficient support services (counselling, employee welfare programmes etc.) and have systems in place so that an employee who may be at risk through the use of alcohol or drugs can receive the necessary advice and assistance at the earliest opportunity.

They will also have arrangements in place so that an individual who may be at risk through the use of alcohol or drugs will be managed in such a way that our colleagues, the public or Iarnród Éireann as an organisation is not at risk through the actions of this individual.

8. Responsibilities of employees

All employees will be required to attend induction, and any periodic refresher training regarding drugs and alcohol awareness. They must cooperate with company initiatives providing information. Employees must not report for duty under the influence of, nor consume when on duty, alcohol or performance impairing drugs. Employees using prescribed, or over the counter, drugs must inform themselves regarding the safety of taking such medication. They must determine any effects of drugs by enquiry of their doctor or chemist, and provide this information to their supervisor before commencing duty.

Every Iarnród Éireann staff member should advise their manager/supervisor and refer themselves to the Chief Medical Officer if they believe they may have a problem. We must all provide support to colleagues who may

need that support, including the realisation that, in the interests of everyone's safety and welfare, it may be necessary to express concerns regarding a colleague to line management.



We must all be guided by mandated time scales regarding elapsed time after the consumption of alcohol and ensure we are fit for duty. We must all respond honestly to out of rostered hours requests to report for duty, or provide assistance or decisions by telephone, if alcohol or drugs have been consumed.

Every staff member must respect their colleagues' right to their leisure time and not exert inappropriate pressure on off-duty staff to provide services.

9. Responsibilities of testing providers

Iarnród Éireann will require the services of organisations with the necessary skills and knowledge to provide drug and alcohol testing as set out in legislation and supported by the relevant Railway Safety Standard.

The organisations supplying these services to Iarnród Éireann will be responsible for ensuring that persons supplied to carry out testing are suitably qualified to carry out this testing and are aware of their responsibilities regarding the welfare of the person being tested, the requirement of legislation regarding procedures for testing and the protocols to be adhered to.

10. Circumstances in which testing is carried out

As part of our normal selection process, all persons applying for employment within Iarnród Éireann will be subject to testing for drugs. Existing employees transferring into a safety critical post will be subject to testing for drugs.

Following a safety-critical incident (whether an accident or other incident), where there are reasonable grounds to suspect that the actions or omissions of a person were pertinent to the incident, then that person must be subject to evidential drugs and alcohol testing.

Where there is reason to suspect that a person is unfit to perform normal duties through the effects of alcohol or drugs then that person must be removed from duty and arrangements put in place for drugs and alcohol testing of the person concerned.

Randomly, The Company will aspire to test 5% of it's employees on an annual basis to satisfy the requirements of The Railway Safety Act.

11. Review dates

This policy will be reviewed by 31st January 2013.

12. How to manage the ill effects of medically required drugs

An employee who consults a doctor or pharmacist and is advised that medication is required must advise the doctor/pharmacist of the nature of their work so that appropriate information about any possible side effects can be given which must in turn be passed on to a supervisor or manager before taking up duty.

A supervisor or manager must be advised of any medical limitations brought about as a result either of a medical condition or the medication for treating that condition.

If an employee is in any doubt about their fitness to carry out their duties while on medication, they must consult their Supervisor or Manager who will obtain advice from the CIÉ Medical Department.

13. Voluntary disclosure

Senior Managers must ensure that they have arrangements in place when an individual voluntarily discloses a concern surrounding alcohol or drug consumption such that the employee receives the necessary range of support measures available to help with the issue.

Where there are safety implications, the individual will, after consultation with the CIÉ Medical Department, be temporarily re-assigned to appropriate duties, bearing in mind the nature of the problem.

The employee will be facilitated with time off work to attend treatment and counselling and will be allowed to return to work when their Manager, in conjunction with the Iarnród Éireann Medical Dept. has agreed that the employee is in a position to take up duty. Prior to taking up duties, the employee must agree to whatever arrangements are deemed necessary by their Manager (in conjunction with the Medical Dept.) for their continued employment.

These may include duties different from those originally carried out, Provision for time off for any ongoing treatment or counselling will also be arranged at this stage.

If an employee, having voluntarily disclosed an alcohol or drug dependency problem, fails to undertake, or does not complete, a prescribed course of treatment, that individual will be liable to be moved to a non-safety critical position, suspension or dismissal. This will also apply if the employee is found to be unfit for duty as a result of the use of alcohol or drugs.



An employee who, in the interval between notification of requirement to attend for alcohol or drugs screening and the outcome of the test, or between the time of occurrence of an incident and the outcome of the post-incident drugs and alcohol test, discloses that they have an alcohol or drugs related problem will not be viewed as voluntarily disclosing the problem if the test result is subsequently found to be positive.

14. Managing behaviour that warrants disciplinary action

As part of Iarnród Éireann's safety management system, it must be recognised that the organisation has to have a mechanism for dealing with breaches of this drugs and alcohol policy, principally the disciplinary system.

If an individual is found to be in breach of this policy or any consequential Standards, then there are a range of sanctions which may be imposed by Iarnród Éireann, up to and including dismissal. While rehabilitation of the employee is a primary concern of the organisation, we all have a duty of care to each other and to the public to reduce the potential risk caused by

the presence of alcohol or drugs in the railways operating environment.

Behaviour that may warrant disciplinary action includes being unfit on duty through the use of alcohol or drugs, consuming alcohol or drugs while on duty or being in possession of alcohol or drugs whilst on duty.

Other behaviours that will warrant disciplinary actions include refusing to participate in a drugs or alcohol test, failing a drugs or alcohol test or refusing to participate in a rehabilitation programme.

Whilst it is not the desire of this organisation to adopt a disciplinarian stance on this issue, it must be recognised by us all that we have a moral and legal responsibility to ensure the safety of our colleagues, the public and the organisation as a whole, and therefore the use of disciplinary sanctions are necessary to manage breaches of this policy.

Where disciplinary action is being taken against an individual it will be in accordance with the established Company disciplinary procedures.

15. How to manage the carrying out of random unannounced testing

A random unannounced test involves the provision of a urine sample and an alcohol breath test. Testing for alcohol or drugs in accordance with this policy will only be carried out by suitably qualified persons authorised to perform this task by the Chief Medical Officer. The testing must follow recognised evidential chain-of-custody procedures, including the division of a urine sample into two containers which are then labelled and sealed in the presence of the employee. One urine sample will then be forwarded to a laboratory for analysis by competent staff. The employee being tested will have the right to have the other urine sample independently analysed (at the employees own expense) by a recognised laboratory.

Persons selected to attend for an drugs and alcohol test as part of the random screening programme will normally be expected to return to work whilst waiting for the results of a test.

The results of an alcohol breath test will be immediate.

16. How to manage test results



Where testing produces a positive result, the employee will be removed from safety critical duties and, based on the particular circumstances surrounding the positive result, will be subject to disciplinary procedures, referred for a course of medical treatment/counselling or some other course of action deemed most appropriate given the circumstances of the particular case. This will be decided by the employee's manager in conjunction with the Chief Medical Officer, taking into account the need for safety in the work place along with the welfare of the individual concerned.

17. How to manage drugs & alcohol issues with contractors, their staff and subcontractors

Senior Managers responsible for procuring the services of contractors must ensure that the contractors, and any subcontractors, are fully aware of this drugs and alcohol policy and must ensure that contractors have systems in place so that they are aware of, and abide by this policy.

18. How to manage the appeals process

Nothing in this policy diminishes the right of an employee to an appeal under due process in accordance with existing procedures, but where there is an appeal against a disciplinary sanction for an alleged breach of this policy, the employee must understand that safety critical duties cannot be performed whilst awaiting the outcome of the appeal.

19. Monitoring the policy

A Monitoring Committee, of similar constituency to that described in section 4 above, will review this policy throughout the first 12 months of its implementation and thereafter as deemed appropriate.

The purpose of this review will be to ensure that the policy is being implemented fairly across the organisation, is meeting all of Iarnród

Éireann's duties under Railway and Health and Safety legislation and to decide if the policy or related procedures need to be altered to take account of some unforeseen dimension or event.

20. How to maintain records of testing

Iarnród Éireann will make every effort to ensure that the right to privacy of any individual is not breached while still allowing the organisation to fulfil its requirements under this policy and as required by legislation.

Detailed records of testing showing levels of alcohol/drugs present in samples will be maintained by the Medical Department.

Individual files held in Personnel Offices will have a record of dates of tests, the reason for the test (random or otherwise). Records of test results will be held separately in a secure system.

Records relating to drugs or alcohol tests will be strictly controlled and will only be released to an authorised person where there is strong justification.

21. How to manage subsequent employment applications by candidates with a test failure history

Persons who have applied to Iarnród Éireann for employment but who failed the pre-employment drugs and alcohol screening tests will have their test results retained on file indefinitely.

Anyone who fails a pre-employment drugs and alcohol screening test will not normally be considered for employment for a minimum of three years.



Drugs and Alcohol Policy

QUESTIONS & ANSWERS

(where appropriate, references to alcohol are applicable to drugs)

1. How do I know how much I can drink?

Always adhere to safe drinking guidelines. However, you should always consider when you have to be on duty next, and the duration of time required for the alcohol you have consumed to be cleared from your body.

2. How do I know if I am unfit to work?

You are considered unfit for work if you have more than the official limit of alcohol in your blood (or equivalent in your urine or breath). The physical signs and symptoms vary from person to person.

3. What is the official limit?

THE LIMIT FOR ALCOHOL IS DETERMINED BY THE RELEVANT/CURRENT RAILWAY SAFETY LEGISLATION. The use of any illegal or performance impairing drugs is not acceptable.

4. How do I know if I am over the limit?

Alcohol leaves the body at a rate of 1 unit per hour therefore you cannot be certain about when you reach the limit. You have to make a judgement based on the amount you have drunk and the time since you last had a drink. You may be completely unaware of the effects of drugs on your ability to work in a safe and satisfactory manner.

5. How do I know when to stop drinking?

As a guide, you should not drink alcohol for 8 hours before coming on duty. However, if you have been drinking more than 8 units (e.g. 2 or 3 pints), you should allow longer for the alcohol to leave your body.

6. How do I know how many units I have drunk?

The general guidance is that 1 unit is the equivalent of a half-pint of average strength beer, lager or cider, a small glass (125 ml) of wine or a single pub measure of spirits. Average strength for beer means 3.5% - 4% alcohol. However, many beers, lagers and ciders are considerably stronger than that and therefore a pint may be up to 3 units. See page 11 for further information on how to work out the number of units your consuming.

7. How do I know how strong a drink is?

Most bottled or canned drinks state the alcohol content by volume on the label. In many pubs, the alcohol content is shown on the label on the beer tap. See page 10 for further information on how to work out the number of units your consuming.

8. Is drinking at home different from drinking in a pub or club?

Beers, lagers and ciders drunk at home from bottles or cans are often stronger than those drunk in a pub. Also, people often drink bigger measures of spirits at home than in a pub. It is therefore more difficult to keep track of the number of units that have been drunk at home.

9. How can I get fit for work more quickly after drinking?

There is no way of speeding up the process of alcohol leaving the bloodstream. It just takes time. The average rate is 1 unit per hour, but this can vary from person to person.

10. What do I do if I am called in an emergency shortly after I have been drinking?

If you have any doubt that you may be over the limit, you should decline to attend. You should remember that you may be liable to testing at the scene of an incident/accident.

11. Can I drink alcohol in the office after work?

Alcohol may only be drunk in the work place outside normal working hours, on specific occasions and with the permission of a senior manager for that event.

12. When might I be tested?

You are likely to be tested for drugs and alcohol if you were involved in an accident or incident, even if you consider that you were not at fault. You are also likely to be tested if you report for duty showing evident signs of having consumed alcohol or drugs (such as smelling of alcohol, uneven gait, slurred speech).

Furthermore, you may be required to undergo a random drugs test in accordance with the policy (5% of employees are tested every year)

If you are transferred to a safety-critical post, you will be required to undergo a drugs test.

If you are carrying out, or reporting to work for the purposes of carrying out safety critical duties, you may be required to undergo a random unannounced drugs and alcohol test in accordance with the Railway Safety Act.

13. What Happens If A Safety Critical Role Holder Fails A Test?

In circumstances where a Safety Critical Role Holder fails a test, that individual is removed from the Safety Critical Role in question and Iarnród Éireann's established Grievance & Disciplinary Policy is applied. It should be remembered, however, that every such case has the potential to be different, so the outcome of the disciplinary process will depend on the findings of the test and its overall circumstances. That is to say, such issues must be dealt with on a case by case basis, as opposed to the application of a mandatory approach.

Accordingly, outcomes may range from referral for counselling or treatment to dismissal.

14. What Happens If A Safety Critical Role Holder Refuses To Take A Test?

Refusal on the part of a Safety Critical Role Holder to take a test when required will have the same consequences as failing a test, and ultimately the same consequences apply.

In circumstances where an individual refuses to take a test, it is essential that the Line Manager/Supervisor in question engages with that individual, clearly outlining the legal imperative for participation in the test, and providing as much information as possible concerning the overall context for random unannounced drugs and alcohol testing.

In other words, the opportunity for the individual in question to consider fully their decision and its consequences, should be afforded.

In circumstances where the individual reiterates their refusal, that individual is removed from their Safety Critical Role and Iarnród Éireann's established Grievance & Disciplinary Policy is applied.

15. What does a Random Unannounced Test Involve?

Random unannounced tests will test for the presence of both alcohol and drugs, and as such will involve a breath test along with the provision of a urine sample.

Work places selected for this testing will be chosen at random, as will the number of candidates to be tested at that location, or from that work group. This testing will be conducted using the same procedures that are currently applied in the case of post-incident testing.

16. How do I know if I have been selected for a random test?

If you are working, or reporting for work, at a location selected for random unannounced drugs and alcohol testing, you will be advised by the authorised person conducting the sampling at the time that the sample is to be collected.

17. How will the standard testing process unfold?

In the vast majority of cases, the test will proceed in line with the established process.

In such cases, the breathalyser test will be negative/clear. The individual will then return to work while the urine sample is sent to the laboratory for testing. The urine sample will be divided in to 2 sample bottles in the individual's presence, and each will be labelled with the same bar code and sealed while they are still present. Both samples are then sent to a testing laboratory where one is tested. If the test is positive at this point, an individual has the right to ask for the other sample to be tested. People can also make arrangements for this second test to be carried out at a laboratory of their choice.

18. How do I assure people that the testing process is carried out properly?

All testing will be carried out by suppliers approved by the Chief Medical Officer in accordance with the European Standards. When a person provides a urine sample, it will be divided in to 2 sample bottles in their presence, and each will be labelled with the same bar code and sealed while they are present. Both samples are then sent to a testing laboratory where one is tested. If the test is positive, an individual has the right to ask for the other sample to be tested. People can also make arrangements for this second test to be carried out at a laboratory of their choice.

19. Might I be tested by a Garda as well as by Iarnród Éireann?

Normally testing will be required by and arranged by Iarnród Éireann, but there may be occasions when the Gardai require to carry out tests on individuals.

20. What medication can I take and still be fit for duty?

You must ask your doctor or pharmacist the nature of the medication you are required to take and any possible effects it may have on your ability to work in a safe and satisfactory manner and inform your supervisor the next time you take up duty. If you are selected for an alcohol or drugs test, you must tell the person carrying out the test what medication you are, or have recently been, taking, as this will be taken into account by the testing laboratory.

21. If I have been at a party and inhaled marijuana smoke “passively” from other people smoking it, would I fail a drugs test?

The test levels are set such that passive inhalation would not trigger a fail result. Nevertheless if you are aware of being in such situation, you should declare it before the sample is taken.

22. My friend has a bad relationship with his supervisor. Can the supervisor “arrange” for my friend to be tested?

Supervisors are responsible for ensuring that staff under their control are fit for duty. They can therefore arrange for an individual to be tested if they have reasonable cause to believe that they are under the influence of alcohol or drugs. Iarnród Éireann have provided training to support supervisors in this regard. The selection process for random testing will be objectively applied through random number selection.

23. What happens if I confide in my manager that I have a problem with drink or drugs?

Your manager will advise in the strictest confidence, the relevant HR Manager and the Chief Medical Officer.

24. What do I do if someone tells me in confidence that he thinks that he has a problem with drink or drugs?

If you are not the individual's manager, you should encourage them to go to their manager and or seek Chief Medical Officer help.

25. What do I do if I think a work colleague or somebody protecting my work is under the influence of drugs or alcohol?

You should advise their manager immediately. If they are undertaking safety-critical work, you should encourage them to stop work until they have been seen by their manager. If their actions or decisions could be an immediate cause of danger, you should take appropriate steps e.g. warning the controlling signalman for the area, moving clear of the line etc.

26. What do I do if someone tells me that he thinks a work colleague or person providing protection is unfit for duty?

You should ask what gave rise to the concern and then see the individual concerned as soon as possible. You then have to judge whether the individual is showing any signs that indicate that he may be under the influence of alcohol or drugs. If so, then you should ask them to cease work and you should advise a manager who can determine the necessary action.

27. What is my role as the Line Manager/Supervisor during the random unannounced testing/sampling process?

When the Authorised Tester/Collection Officer presents at a work location for the purpose of carrying out a random unannounced drugs & alcohol test, their first action will be to contact you directly. The Collection Officer will set the scene for their visit, and explain what assistance they may require.

(As a Line Manager/Supervisor, your contact details have been supplied to the authorised testing body, and you have been registered as a 'Site Contact').

You will be called upon to:

- » Ensure that the Authorised Tester/Collection Officer complies with Iarnród Éireann's Health & Safety standards (Refrains from walking on the track, wears high visibility vest where appropriate etc.)
- » To facilitate the testing process, bringing the Authorised Tester/Collection Officer to a suitable location ;{A Private Room/Office adjacent to a Serviceable Restroom Facility}; and treating the duration of the process as a priority issue.
- » Ensure that the privacy required for the sampling/collection process is maintained.

The Authorised Tester/Collection Officer may call upon you for further assistance/reference if secondary issues arise during the process, such as:

- » The candidate is unwilling to provide a sample
- » The candidate cannot provide a sample
- » The candidate behaves in an obstructive fashion

In addition you will be required to:

- » Witness the calibration of the breathalyser which will be used during the test
- » Verify/confirm the identity of the individual being tested
- » Witness the signing of the sample jars
- » Sign off on paperwork once the process has been completed (counter-signing)
- » Be available if anyone contests the collection process



7109-24 Division 17 Rural/Urban Fencing

- **Volume A – Works Requirements documents to include;**

Ref.	
1.1	Doc 1.1 IE Palisade Fencing Scope Division 17
1.2	Doc 1.2 IE Contractors Permit to Access
1.3	Doc 1.5 IE Certification of Road Rail Vehicles
1.4	Doc 1.6 IE Environmental Management System
1.5	Doc 1.7 IE Fencing Specification
1.6	Doc 1.8 IE Instructions on use of site and railway safety
1.7	Doc 1.9 IE Code of Conduct for Suppliers
1.8	Doc 1.10 IE Drugs and Alcohol Policy

- **Volume B – Form of Tender & Schedule**
- **Volume C - Pricing Document**
- **Volume D – Conditions of Contract**
- **Instructions to Tenders**
- **Model Forms**

FORM OF COLLATERAL WARRANTY BY CONTRACTOR TO CIE

THIS DEED is made on the day of 2020

BETWEEN:

- 1 [.....] (registered company number [.....] whose registered office is at [.....] (the “**Contractor**”); and
- 2 **CÓRAS IOMPAIR ÉIREANN** whose principal office is at Heuston Station, Dublin 8, Ireland (the “**Beneficiary**”).

BACKGROUND:

- A Iarnród Éireann-Irish Rail (the “**Employer**”) is about to enter into a contract (the “**Contract**”) by which the Contractor will undertake Div 17 Rural/Urban Fencing, Ref 7109-24 (the “**Works**”) on behalf of the Employer.
- B Terms and expressions defined in that Contract have the same meaning in this Deed as is given to them in the Contract.
- C The Contractor has agreed to provide this Collateral Warranty to the Beneficiary.

NOW IT IS HEREBY AGREED as follows, in consideration of the payment of €1 by the Beneficiary to the Contactor (receipt and adequacy of which the Contractor acknowledges):

1 Contractor’s Undertaking to the Beneficiary

- 1.1 The Contractor warrants and undertakes to the Beneficiary that it has not broken and will not break any express or implied term of the Contract.
- 1.2 The Contractor covenants with the Beneficiary that, in carrying out the Contract, that the Works, when completed, will be fully in accordance with the provisions of the Contract, and in particular, Clause 3 thereof.

2 Insurance

- 2.1 When it reasonably requested to do so by the Beneficiary, the Contractor will produce for inspection satisfactory documentary evidence that its insurances pursuant to the Contract are being maintained.
- 2.2 The Contractor will immediately notify the Beneficiary in writing of any cancellation, non-renewal or material reduction in any of its insurances.

3 Assignment

The benefit of this Deed is assignable by the Beneficiary.

4 Indemnity

The Contractor shall indemnify the Beneficiary and the Beneficiary's employees, directors, and managers against:

- (a) claims, liability, proceedings, and
- (b) loss of or damage to the Beneficiary's property

arising from or in the course of the Contractor's performance or non-performance of the Contract.

The Contractor's indemnity does not apply to the extent that the liability is caused by the negligence of the Beneficiary or is property damage that is the unavoidable result of executing the Works in accordance with the Works Requirements.

5 Notices

Any notice to be given under this Deed must be in writing and will be considered given if delivered by hand or sent by pre-paid registered post to the address to the relevant party at the top of this Deed, or at any other address the relevant party may specify by written notice to the other parties. A notice will be taken to have been received on the day of delivery if delivered by hand, or 48 hours later if sent by pre-paid registered post.

6 Common Law Rights

Nothing in this Deed limits the Beneficiary's rights at law.

7 Law

This Deed is governed by the construed according to Irish law. The parties submit to the exclusive jurisdiction of the Irish courts in relation to all matters concerning it.

8 Procedure

If there is a conflict between this Deed and the Contract, this Deed takes precedence in relation to the subject matter of this Deed.

9 Joint and Several Liability

The obligations in this Deed of the persons comprising the Contractor are joint and several.

**GIVEN UNDER THE COMMON SEAL¹ OF
THE CONTRACTOR AND EXECUTED AND DELIVERED AS A DEED:**

Director

{ SEAL }

Director/Secretary

SIGNED on behalf of the BENEFICIARY

By _____

In the presence of

[name]

¹ If the Contractor is a joint venture or consortium, execution must be by each member of the joint venture/consortium and additional execution blocks inserted, in the same form as given above, inserting name of Joint Venture/Consortium Member



7109-24 Division 17 Rural/Urban Fencing

Instructions to Tenderers
(using the Negotiated Procedure for WORKS CONTRACTORS)

Issue Date
October 2020

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Preface

The Employer is making these documents available to Candidates for the contract identified in the Particulars, for tendering purposes only. These documents must not be used for any other purpose.

The Employer makes no representation, warranty, or undertaking in or in connection with these documents. The Employer has not authorised anyone to make any representation in connection with these documents on its behalf, and Candidates should not rely on any representation purportedly made on the Employer's behalf in connection with them. Neither the Employer nor its officers, employees, or advisers will have any liability in connection with these documents. Candidates must make their own assessment of the adequacy, accuracy, and completeness of these documents.

The Employer reserves the right not to proceed with the procurement process or any part of it and may terminate the process or any part of it at any time, with or without procuring the Works in another way. If this happens, neither the Employer nor its officers, employees, or advisers will be liable to any Candidate or other person. The Employer also reserves the right to change any part of these documents, including the procedures and time limits described in them. The Employer does not bind itself to accept any outcome of the process described in these documents and is not obliged to enter into a contract for the Works with anyone.

Neither the Employer nor its officers, employees, or advisers have any responsibility for Candidates' costs or losses in connection with this competition. There will be no contract between any Candidate and the Employer concerning the subject of these documents (except for the Candidate's irrevocable offer to be bound by its Tender for the period stated) unless and until the Contract has been entered by issue of a Letter of Acceptance or Tender Acceptance. These Instructions to Tenderers will not be part of any Contract.

These documents are being made available to the Candidates on the terms stated in these Instructions to Tenderers. They are not being distributed to the public, and have not been filed, registered, or approved in any jurisdiction. Possession or use of these documents contrary to any law is prohibited. Candidates must inform themselves of and observe all laws concerning the possession and use of these documents.

Candidates must treat these documents, their Tenders, and their participation in this competition as confidential. Candidates must not disclose any information about this competition to anyone other than as required for tendering purposes, or as required by law.

The Employer is entitled to disclose information about this competition, including the identity of the Candidates, to any person. If a Candidate considers that information in its Tender is commercially sensitive or confidential, this should be clearly stated and clear and substantive reasons should be given. The Employer will have regard to such a statement in considering a request for access to the information under the Freedom of Information Acts 2014, but is not bound by the Candidate's view.

If a Candidate, or its personnel involved in this competition, or its management, or its proposed consultants or subcontractors, have or have had any other interest in or involvement in relation to the Works (including any involvement with the Employer or any involvement with another Candidate's Tender), the Candidate must disclose this to the Employer as soon as it becomes apparent to the Candidate. The Employer will decide on the appropriate course of action.

It will be a condition of the award of the Contract that the Candidate must comply with the terms of Department of Finance Circular 43/2006¹: Tax Clearance Procedures: Public Sector Contracts, or any replacement. (See section 10.3.). Candidates may obtain information regarding their obligations concerning

- taxation from the Revenue Commissioners (www.revenue.ie)
- environmental protection from the Environmental Protection Agency (www.epa.ie)

¹ As a result of the introduction of the new electronic Relevant Contracts tax (e-RCT) system by the Revenue Commissioners in January 2012 the C2 certificate is no longer in use by subcontractors. This change will require to be reflected in the Department of Finance procedures for tax clearance in relation to public sector contracts and grants. Accordingly Circular 43/2006 is being revised and a replacement will issue shortly. In the interim, more details are available at <http://www.revenue.ie/en/tax/rct/subcontractor.html> Note that the changes relate to use of the C2 only.

- employment protection and working conditions from the National Employment Rights Authority (www.employmentrights.ie).

1. Introduction

1.1. This procedure

These documents are being sent to all participants on 7109 - Framework Agreement for Railway Fencing & Associated Works.

These documents set out the award criteria and the award process which will be followed by the Employer in making the assessment of which tender is either the lowest price or the most economically advantageous. The documents also set out the information which must be supplied by Candidates. Tenders must be submitted in accordance with these Instructions. Any tenders not complying with these Instructions may be rejected by the Contracting Authority, whose decision in the matter shall be final.

1.2. These documents

These documents are being sent to all the Candidates.

Those documents set out under Section 4.2 'Tender Documents' of these Instructions to Tenderers.

1.3. The Contract

If the Employer enters a Contract for the Works, it will do so by issuing the Tender Acceptance at the back of the Form of Tender fully completed. The Contract, if formed, will consist of:

- the Tender Acceptance issued by the Employer (Volume B) and
- any written post-tender clarifications (Volume B)
- the Conditions to the Short Public Works Contract (PW-CF6) (Volume D)
- the documents describing the Works² (Volume A)
- the completed Form of Tender and Schedule (Volume B)
- the completed pricing document (Volume C) [where required]

None of the following will form part of any Contract:

- the invitation letter and these Instructions
 - any Bill of Quantities
 - the information referred to in Appendix 3 to these Instructions
 - any other information issued to Tenderers not stated to amend the Contract documents
 - additional information to be submitted with Tenders, as specified in Appendix 2 to these Instructions
 - any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications.
-

² These documents may include (but are not limited to) any of the following:

drawings, specifications, schedules, reports, information on the site location, any constraints such as existing services or working hours, statutory consents and conditions attached thereto.

2. Communications

- 2.1. Contact** All communications with the Employer concerning this competition must be in writing (which includes email), and with the Employer's contact person identified in the Particulars (as may be amended by supplemental information - see Section 2.2 below).
-
- 2.2. Supplemental information** The Employer may issue supplemental information to all Candidates. Supplemental information may amend any of the information in these documents, including by deleting and adding to it, and by extending time limits. Supplemental information will only become part of the Contract if it is stated to amend the Contract documents.
- The Employer will not normally issue supplemental information later than the date stated in the Particulars but is entitled to do so at any time.
-
- 2.3. Queries** Queries may be raised in writing by email using the Employer's contact details for queries stated in the Particulars. Queries must be raised as soon as possible and should be raised in any event no later than the date stated in the Particulars. The Employer has no obligation to respond to queries although the Employer may at its discretion respond to queries raised after that date. If the Employer responds to a query, it will issue the response on the e-tenders website, unless the query has been clearly designated as confidential. If the Candidate has designated the query as confidential, and the Employer decides that the response should be sent to all Tenderers, the Employer will so notify the Candidate asking the query, who will have the option of withdrawing the query or having any response sent to all Candidates. The Employer may exercise its rights under section 2.2 of these Instructions and issue any information it considers appropriate to all Tenderers following withdrawal of the query.
- Responses to queries will not be part of the Contract, unless they state that they will be incorporated into the Contract documents.
- If a person intending to submit a Tender becomes aware of any ambiguity, discrepancy, error, or omission in or between these documents, they must immediately notify the Employer, even after the time for submitting queries has expired.
-
- 2.4. Pre-qualification** A Candidate wishing to change any of the information in its pre-qualification submission for this competition must do so by written request to the Employer. The Employer may decide, at its discretion, whether to accept or reject the change.
-
- 2.5. Other** As indicated in the particulars e.g. special arrangements for site visits or investigation.
-

3. Tenderers

3.1. Name

Each Tenderer Candidate must sign the Form of Tender using the Tenderer's full correct legal name. This must be the name in which the Candidate pre-qualified, and was invited to tender. Those signing shall be authorised to sign on behalf of the Tenderer and this signature must be witnessed.

3.2. Mandatory Exclusion

A Tenderer shall be excluded if, to the Employer's knowledge at the time of the award decision, it has been convicted of an offence involving:

- participation in a proscribed criminal organisation or
 - corruption or
 - fraud or
 - money laundering.
-

3.3. Discretionary Exclusion

Although invited to tender, a Candidate may be excluded if, at the time of the award decision, it

- participation in a proscribed criminal organisation or
 - is subject to a bankruptcy or insolvency procedure or process of a kind specified in Regulation 53, paragraph (5) of the European Communities (Award of Public Authorities' Contracts) Regulations 2006 or
 - has been found guilty of professional misconduct by a competent authority that is authorised by law to hear and determine allegations of professional misconduct against persons that include the Candidate or
 - has committed grave professional misconduct provable by means that the Employer can demonstrate or
 - has not fulfilled an obligation to pay a social security contribution as required by a law of Ireland or the country or territory where the Candidate ordinarily resides or carries on business or
 - has not fulfilled an obligation to pay a tax or levy imposed by or under a law of Ireland or the country or territory where the Candidate ordinarily resides or carries on business or
 - has provided a statement or information to the Employer or another contracting authority knowing it to be false or misleading, or has failed to provide to the Employer or another such authority a statement or information that is reasonably required by the Employer or other authority for the purpose of awarding the public contract concerned.
-

4. Requirements for Tenders

4.1. Delivery

Tenders must be received at the place stated in the Particulars, at or before the latest time stated in the Particulars (or a later date and time advised by the Employer to all Candidates) in the manner described in the Particulars. Time is taken as standard time according to the Standard Time Act 1968 as amended by the Standard Time (Amendment) Act 1971 and any subsequent amendment or re-enactment thereof.

The completed tender documents should be sent in the manner described in the Particulars i.e. by registered post or delivered by hand [Faxed or emailed submissions will not be accepted] to the address stated in the Particulars. It is the responsibility of Candidates to obtain a receipt, indicating time when submission was received, from the Contracting Authority.

Tenders received late will not be considered.

All Tenders received on time will be opened promptly after receipt.

4.2. Tender Documents

Attached to these Instructions are the documents listed in the Particulars under *Tender Documents*. Documents listed in the Particulars as *Documents to be included in the Contract* or any amendment to them which have been issued will form part of the Contract. These will include:

- the Short Public Works Contract as identified in Volume D
- the documents describing the Works³ (Volume A)
- the completed Form of Tender and Schedule (Volume B)
- the completed pricing document⁴ (Volume C)
- the Tender Acceptance issued by the Employer and any post-tender clarifications listed in the letter or attached to the tender acceptance

All other documents, including *Documents for information purposes only* issued to Candidates will not form part of the Contract such as:

- the invitation letter and these Instructions
 - any Bill of Quantities
 - any other information issued to Applicants not stated to amend the Contract documents.
 - any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications..
-

4.3. Number of Tenders per Tender

Only one Tender per Tenderer is permitted with the Short Public Works Contract.

4.4. Copies

Tenders must include the number and type of paper and electronic copies stated in the Particulars and must be packed and marked as stated in the Particulars.

4.5. Format

Tenders will consist of:

- the completed Form of Tender and attached completed Schedule (Volume B) executed as indicated in the Particulars
- additional information specified in Appendix 2 to these Instructions

The original of Volume B must be returned and completed in ink. If Volumes B has been amended by supplemental information, Candidates must use the most recently issued versions. If replacement pages are issued as supplemental information, Candidates must insert the most recently issued pages in place of the replaced pages.

No amendments or alterations to the Form of Tender or attached Schedule are permitted. Any such amendments/alterations may result in the Candidate's tender being rejected.

4.6. Language

Tenders and all information included with them must be in the language stated in the Particulars. Any original document in another language must include an accurate translation into the language stated in the Particulars. Queries and other communications must be in the

³ These documents may include (but are not limited to) any of the following:

drawings, specifications, schedules, reports, information on the site location, any constraints such as existing services or working hours, statutory consents and conditions attached thereto.

⁴ Where a pricing document is required by the Employer, it shall be a schedule of rates which will be derived [in accordance with Section 4.8 of these Instructions] from the pricing document returned as Volume C. Its purpose shall be to value completed work or may also be used in connection with the valuation of a compensation event in accordance with clause 4.5 of PW-CF6.

same language.

4.7. Qualification

Tenders must not be qualified. They must not be accompanied by a cover letter or any other information not included in Volume B or Volume C or specified in these documents.

4.8. Pricing

Unless otherwise stated, all sums given in Tenders must be in euro, to two decimal places.

The Employer may provide a Schedule of Rates or a Bill of Quantities to be completed by the Tenderer and returned as the pricing document (Volume C). Alternatively the Employer may require the Tenderer to prepare a Schedule of Rates or a Bill of Quantities based upon the documents describing the Works as set out in Section 4.2 to these Instructions. The Particulars to these Instructions will advise Tenderers which option applies. If required in the Particulars, a Schedule of Rates or a Bill of Quantities prepared by the Tenderer should be returned as the pricing document (Volume C).

The pricing document will provide the rates and prices in the Contract referenced in clause 4.5 subject to its conforming to this Section 4.8.

Where provided by the Employer, Tenderers must not insert additional items in the pricing document, except where permitted to do so by the pricing document, or make any alterations to the pricing document.

Amounts must be included wherever required in the Form of Tender, and the pricing document. Blank spaces, the terms 'nil', 'included', dashes or the like must not be used. Where zero is a permitted entry, it must be stated as '0.00'. Each amount must properly cover the full inclusive value of the work to which the amount relates.

Tenderers must not use abnormally high or low rates or prices. This prohibition includes using strategies that might allow the Tenderer to benefit disproportionately from clause 4.5 of the Conditions or, if it would be a compensation event under the Contract, a difference between the Contract value of the Works according to the quantities and descriptions in any Bill of Quantities and the Contract value of the Works as set out in the documents describing the Works (Volume A).

Each amount in the pricing document must cover the full inclusive value (excluding value-added tax) of the relevant work, and, where applicable, a fair allocation of the tendered Price.

All items and quantities in any Bill of Quantities must be priced. All items in any Schedule of Rates must be priced.

Tenderers must not use negative rates or prices, or omit rates, or use zero rates, in any Bill of Quantities.

If any Tender does not comply with this Section 4.8, the Employer may proceed according to Sections 5 or 6.

4.9. Consistency with suitability assessment

Subject to Section 2.4 Tenders must be consistent with the Candidate's suitability assessment submission for this competition. Otherwise the Tender may be disqualified at any time during the competition at the Employer's discretion.

4.10. Value-Added Tax

The Form of Tender states whether and to what extent, the tendered Contract Sum includes value-added tax (VAT). The amounts in the Schedule, Part 2 exclude VAT. The Pricing Document excludes VAT unless otherwise stated in the Pricing Document.

If the Pricing Document includes a schedule of items that are not construction operations subject to Relevant Contracts Tax (and therefore to reverse-charge VAT), and, in the Employer's opinion, the categorisation of an item, the VAT rate stated, or the value stated is not correct, the Employer may invoke section 8.2.

4.11. Time for Completion

The Particulars state the Time for Completion period for the Works (see clause 1.1 of the Short Public Works Contract for definition) which is also stated in the Schedule.

4.12 Project Supervisor

The Contractor or its nominee will be appointed as project supervisor for the construction stage under the Safety, Health and Welfare at Work (Construction) Regulations 2013, if so stated in the Schedule.

If the candidate has named a proposed project supervisor for the construction stage in its suitability assessment submission for this competition, the Candidate must also include that name as part of their Tender and enclose it with Volume B.

If the Candidate has not named a nominee in its suitability assessment submission for

appointment as project supervisor for the construction stage, (if required in the documents describing the Works) the Candidate will be taken to offer to act in the role itself, and the Contract, if awarded to the Candidate, will require the Candidate to accept the role. In this case, the Candidate must be a competent individual or body corporate.

4.13 Tender Execution

The acceptance of the Form of Tender (Employer signing and sending the 'Tender Accepted' section of Volume B by the Employer creates a binding contract. The 'Tender Accepted' form shall be completed and signed by the Employer only after all award procedures have been completed.

- The Form of Tender must be signed as follows:
 - if the Tenderer is a company, the signature must be that of a director and the execution must be witnessed;
 - if the Tenderer is an individual, he or she must sign the Form of Tender and the execution must be witnessed;
 - if the Tenderer is a partnership then each partner must sign the Form of Tender and the execution must be witnessed;
 - if the Tenderer is a company registered elsewhere than Ireland, it must execute the Form of Tender under hand according to the laws of its place of incorporation. If so requested by the Employer a legal opinion that the Form of Tender has been duly executed in accordance with the requirements of the jurisdiction in which the company is registered may be requested by the Employer following the submission of tenders and must, if requested, be provided at the Tenderer's cost.
-

4.14 Deposits

The Deposit required for tender documents as stated in the Particulars will be refundable to all tenderers that submit *bona fide* tenders that are not subsequently withdrawn. The deposit is to cover the cost incurred by the Contracting Authority in preparing the relevant tender documents.

5. Non-Compliant Tenders

If a Tenderer fails to comply in any way with these Instructions, the Employer may (but is not obliged to) disqualify the Tenderer concerned and reject any Tender concerned as non-compliant, and, without prejudice to this right, the Employer may (but is not obliged to) seek clarification or further information (that does not materially alter a Tender) from the Tenderer in respect of the relevant tender or take any other step permitted by law, including the principles of equal treatment, non-discrimination, transparency and proportionality.

6. Corrections, unbalanced and abnormal tenders and rates and permitted adjustments for Specialist Works

6.1 Errors

The Employer may, without any responsibility for this, examine the Pricing Document for errors in addition or extension.

If there is an error in extension, the rate will be adjusted, so that the extension remains the same.

If there is an error in addition, the amounts added (and the rates making them up) will be adjusted pro rata to the error, so that the total remains the same. This will apply if the total of the tendered rates and prices, with value-added tax added, does not add up to the tendered Contract Sum.

The Employer will decide which amounts and rates are to be adjusted.

Instead of adjusting the amounts added, the Employer may in its discretion adjust an item described in the Pricing Document as an 'adjustment item'.

No adjustment made under this section 6.1 will affect the tendered Price.

The Employer reserves the right to open all Pricing Documents from tenderers without the need to revert to the tenderers for permission.

6.2 Unbalanced Tenders

If, in the Employer's opinion, the tendered rates or prices in the pricing document (after adjustment under Section 6.1 above) do not reflect a fair allocation of the tendered Price, or the last sentence of Section 4.9 applies, the Employer may (but is not obliged to) do either or both of the following:

- require the Tenderer to provide a breakdown of any tendered amounts, to show that they reflect a fair allocation of the tendered Price and
- invite the Tenderer to adjust rates or prices tendered in the pricing document, but without adjusting the tendered Price.

The Employer will pay particular attention to pricing that could result in the Tenderer, if successful, being paid too much of the Price disproportionately early in comparison with the amount of work done.

If, having considered the information provided (both in the Tender and in response to a requirement under this Section 6.2), the Employer is of the view that the Tenderer's tendered rates or prices in the pricing document do not reflect a fair allocation of the tendered Price, the Employer may reject the tender.

6.3 Abnormally low tenders, abnormally high or low rates or prices

If, in the Employer's opinion, the tendered Contract Sum is abnormally low or any tendered amounts (including the rates tendered in the Schedule, part 2) are abnormally low or abnormally high, the Employer may require the Tenderer to provide details of the constituent elements of the tendered Contract Sum or the tendered amounts. This may include (without limitation) the information listed in Regulation 69(1) of the European Communities (Award of Public Authorities' Contracts) Regulations 2006. Any failure to provide such information, when requested, may exclude the tender from further consideration. If, having considered the information provided, the Employer is of the view that either the Contract Sum is abnormally low or any tendered amounts are abnormally low or abnormally high, the Employer may reject the Tender.

No adjustment made under this section 6.3 will affect the tendered Price.

7. Assessment of Tenders

7.1 Award Criteria

The award criterion is: (i) the most economically advantageous Tender meeting the specified minimum criteria:

The assessment of the Most Economically Advantageous Tender (where applicable) will be made on the basis of the award criteria in the Particulars.

Options, variant tenders, and standard tenders will be assessed according to these criteria.

7.2 Clarification

The Employer may seek clarification or further information or both from one or more Tenderer in relation to its tender submission. The Employer may meet with one or more Tenderer for these purposes. The Employer will confirm to the Tenderer concerned in written minutes any clarification arising from a meeting and the Tenderer will be required to confirm or correct the minutes in writing. See also section 8.4.

7.3 Compliance

The Employer may assess whether any of the grounds for exclusion in Section 3.2 or 3.3 above apply.

The Employer will assess Tenders for compliance with these Instructions, including provision of all the information and documentation required, and the matters covered in Section 6 above.

Following the assessments under this Section 7.3, the Employer may proceed according to Sections 5 or 8 whichever is appropriate.

7.4 Review

Not applicable.

7.5 Assessment of tender price

The tender with the lowest tendered Price will be awarded the maximum marks available for price. The methodology for the assessment of tendered price will be as follows:-

$$\text{Tendered Price for Tenderer X} = \frac{A \times B}{C}$$

Where:

A = Total marks available for tendered Price

B = Lowest tendered price

C = Tender Price of Tenderer X

7.6 Assessment of other criteria

The criterion relating to "Compliance with Technical Specification" is a Pass/Fail criterion. The tender must be compliant with Volume A otherwise it will be deemed a non-compliant bid.

Tenderers must submit a Project Execution Plan (PEP), which includes a detailed methodology for carrying out the works in compliance with Volume A Works Requirements. The PEP should focus on how the proposed works will be executed and should illustrate the tenderer's understanding of the works requirements as set out in Volume A. The PEP should demonstrate the Tenderer's ability to plan how the works will be carried out safely and effectively and should consist of a programme for the completion of works with the sequence of activities/tasks itemised in a logical step by step format, from the commencement of works through to works completion. The PEP should also include details of the proposed resources (including key persons) who will carry out the works.

7.7 Change in circumstances

If, as a result of a change in circumstances or otherwise, any information given by a Tenderer to the Employer, in a Tender or otherwise, including in a prequalification questionnaire, was (when submitted) or has become (by reference to the facts as they then stand) untrue, incomplete or misleading, the Tenderer must so inform the Employer as soon as it becomes aware of this. If appropriate, the Tenderer may make a request under section 2.4 to change information in its prequalification submission.

If it comes to the Employer's attention that

- there has been a change in circumstances concerning a Tenderer that could affect the Employer's assessment of that Tenderer's Tender or the Employer's decision to invite the Tenderer to submit a Tender or
- information submitted by a Tenderer was (when submitted) or has become (by reference to the facts as they then stand) untrue, incomplete or misleading

the Employer may (but is not required to) revise its assessment of the Tenderer's Tender or

prequalification on the basis of the information then available to the Employer.

8. Award Process

- 8.1. Negotiated Procedure** The Employer may operate the Negotiated Procedure for the purposes of this tender action.
-
- 8.2. Tender validity period** The Employer may accept a Tender any time within the time stated in the Particulars.
-
- 8.3. Notification** As soon as practicable after reaching the award decision, the Employer will inform all Tenderers of the decision.
- The notification to the Tenderer to whom the Employer has decided to make an award should be in the form of Model Letter R.na.7 *Letter to Successful Tenderer*. The notification to the other Tenderers should be in the form of Model Letters R.na.8 *Letter to Unsuccessful Tenderer* and should issue at the same time as the Letter to Successful Tenderer.
- The *Letter to Successful Tenderer* (R.na.7) will not form the Contract, or any contract or other obligation. The Contract will be formed only by issue of the Tender Acceptance.
-
- 8.4. Letter to Successful Tenderer** The Letter to Successful Tenderer (R.na 7).should request the Tenderer to submit to the Employer any or all of the following:
- evidence of the insurances required by the Contract
 - a Tax Clearance Certificate or demonstrate a satisfactory level of subcontractor tax compliance from the Revenue Commissioners⁵
 - any confirmation of appointment as project supervisor for the construction stage
- If the Tenderer to whom such a Letter to Successful Tenderer (R.na 7). is addressed does not submit the documents as required within the time allowed, the Employer may
- proceed according to the process in Section 8.3 above to initiate award to the Tenderer who submitted the next lowest priced tender, or
 - allow the Tenderer to whom the Letter to Successful Tenderer (R.na.7) was addressed additional time to provide the documents or
 - issue the Tender Acceptance to the Tenderer to whom the Letter to Successful Tenderer was addressed (R.na.7) (even though the documents have not yet been provided)⁶
-
- 8.5. Tender Acceptance** The Employer may issue the Tender Acceptance at any time during the Tender validity period referred to in Section 8.2 above.
- Any written clarifications of a Tender (including minutes of a meeting clarifying the Tender, see Section 7.2), will be attached to the *Tender Acceptance* of the clarified Tender, and will be included in the Contract.
-

⁵ As a result of the introduction of the new electronic Relevant Contracts tax (e-RCT) system by the Revenue Commissioners in January 2012 the C2 certificate is no longer in use by subcontractors. This change will require to be reflected in the Department of Finance procedures for tax clearance in relation to public sector contracts. Accordingly Circular 43/2006 is being revised and a replacement will issue shortly. In the interim, more details are available at <http://www.revenue.ie/en/tax/rct/subcontractor.html> Note that the changes relate to use of the C2 only.

⁶ A contract should not be awarded to any firm which cannot produce a tax clearance certificate except as a last resort. In such a case, the advance approval of the Department of Finance must be obtained.

Glossary of terms used in these Instructions

Terms defined in the Conditions of the Contract identified in the Particulars have the same meaning in these Instructions. References to clauses are to clauses or sub-clauses of those Conditions. Unless otherwise indicated, references to sections and Appendices are to sections of and Appendices to these Instructions.

Term	Meaning
Candidate	a person (or group of persons) that has been invited to submit a Tender
Contract	the contract that may be awarded by the Employer for the Works at the end of the competition.
this competition	the award process for which these Instructions are issued.
these documents	These Instructions and the invitation letter and other documents issued with it and any additional information issued by the Employer to Tenderers in connection with the competition.
these Instructions	<ul style="list-style-type: none"> • this volume, including the Preface at the start, Particulars and Appendices • other information or instructions issued by the Employer to Tenderers in connection with the competition not stated to amend the Contract documents.
Tender	a tender for the Contract, including the completed Form of Tender and Schedule (FTS6) and completed Pricing Document.
Tenderer	A Tenderer that has submitted a tender is designated a tenderer [2004/18/EC Article 1(8) and SI No 329 Of 2006 Regulation 3(1)]

Particulars

These are the Particulars referred to in the Instructions. They are part of the Invitation to Tender (ITT).

Tender for	7109-24
Comprising:	Fencing at 7 locations in Division 17 see Table 2.1 in Scope of works
At	Division 17
For	Iarnród Éireann
Using [section 1.3]	The form of Conditions set out in the Short Public Works Contract (PW-CF6 v.1.12) dated 5 th June 2019

Employer's contact details [section 2.1]	Contact Name	[REDACTED]
	Address	Procurement Department, Iarnród Éireann, CIE Railway Works, Inchicore, Dublin 8, D08 KY63

Supplemental Information and Queries [sections 2.2, 2.3]	Latest date for queries	12:00 hours – Tuesday 3 rd November 2020
	Date after which Employer will not normally issue supplemental information or responses to queries	12:00 hours – Wednesday 4 th November 2020

Employer's contact details for queries [section 2.3]	Contact Name	[REDACTED]	
	Address	As above	
	Phone:	E-mail	Fax:
	01 7031775	Noel.coss@irishrail.ie	

Timetable for Competition	Contract Notice date:	<i>Not Applicable</i>	Reference	<i>Not Applicable</i>
	Issue Tender Documents:	20 th October 2020		
	Receipt of Tenders	As indicated under "Tender Date"		
	Interviews (if required):	Within subsequent 2 weeks (if required)		
	Site Visit	Thursday 29 th October 2020 @ 09:30hrs Meeting Point: Port of Cobh Car Park		

Tender Date [section 4.1]	Latest Date and time for Submission of Tenders	12.00 on Friday 6th November Via E-Tenders
------------------------------	--	--

Tender submissions (in writing) must be sent to: [section 4.1]	Contact Name	[REDACTED]
	Address	Procurement Department, Iarnród Éireann, CIE Railway Works, Inchicore, Dublin 8, D08 KY63

Delivery by [section 4.1]	Must be uploaded to E-Tenders by closing date above
------------------------------	--

Other Instructions	<i>Not Applicable</i>
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[section 2.5]		
Tender Documents [section 4.2]	<p>Attached to these Instructions are the following documents, divided into two categories set out below:</p> <p>Documents to be included in the Contract</p> <ul style="list-style-type: none"> • the Tender Acceptance issued by the Employer (Volume B) and • any written post-tender clarifications (Volume B) • the Conditions to the Short Public Works Contract (PW-CF6) (Volume D) • the documents describing the Works (Volume A) • the completed Form of Tender and Schedule (Volume B) <p>note: Please note that a Bill of Quantities will not form part of this Contract.</p> <p>Documents for information purposes only (<i>not</i> to be included in the Contract)</p> <ul style="list-style-type: none"> • the invitation letter and these Instructions • any Bill of Quantities • any other information issued to Tenderers not stated to amend the Contract documents • any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications. <p>Further information may be issued as described in these Instructions</p>	
Deposit [section 4.15]	Deposit required on issue of tender documents	<i>Not Applicable</i>
Number of Tenders per Tenderer [section 4.3]	Maximum number of Tenders to be submitted by each Candidate is one	
Format of Tender Submissions [Section 4.5]	<p>Tenders will consist of the following documents:</p> <ol style="list-style-type: none"> 1. Completed Form of Tender & Schedule (Volume B) 2. Completed Pricing Document (Volume C); please note that where provided, the excel version of Volume C - Pricing Document must be completed by inserting the relevant rates within this document and returning in E-tenders. 3. Project Execution Plan (PEP), which includes a detailed methodology for carrying out the works in compliance with Volume A Works Requirements. The PEP should focus on how the proposed works will be executed and should illustrate the tenderer's understanding of the works requirements as set out in Volume A. The PEP should demonstrate the Tenderer's ability to plan how the works will be carried out safely and effectively and should consist of a programme for the completion of works with the sequence of activities/tasks itemised in a logical step by step format, from the commencement of works through to works completion. The PEP should also include details of the proposed resources (including key persons) who will carry out the works. 	
Language [section 4.6]	English	
Pricing [section 4.9]	Pricing format: Fixed Price Lump Sum	
Pricing Document [section 4.9]	The rates and prices in the Contract (clause 4.5 of PW-CF6) shall be derived from: Bill of Quantities prepared by Employer	
Time for Completion [section 4.11]	Time for Completion	40 days, starting on the day this Contract comes into effect.

	CA note: must accord with period stated in Schedule to Contract
Form of Tender to be sealed [section 4.13]	No
Award Criterion [section 7.1]	Most Economically Advantageous Tender
	Compliance with Specification Pass/Fail Price 100%
	Tendered Price 1000 marks
Tender Validity Period [section 8.2]	As stated in Form of Tender and Schedule (FTS 6) (Volume B).

Appendix 1 - Schedule of Rates or Bill of Quantities

Application

This appendix applies if the Employer requires the Tenderer to prepare and submit a Schedule of Rates or Bill of Quantities with their Tender. Should this arise notification will be included in the Particulars under Pricing document (Instructions Section 4.8)

Requirements for the format of the Schedule of Rates or Bill of Quantities that the Employer requires from the Tenderer e.g. the method of measurement etc.



PRELIMINARY HEALTH AND SAFETY PLAN

**OBC437 & OBC438 Deck & Handrail Renewals, Lower Road, Ringmeen, Cobh, Co. Cork
Located at 176 miles 0631 yards & 176 miles 1208 yards on the Cork to Cobh Railway Line**

Senior Track & Structures Engineer's Office,
Limerick Junction Station,
Limerick Junction,
County Tipperary.
20th September 2017
Revision 1.0

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Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork

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1 INTRODUCTION

This preliminary Health and Safety Plan has been prepared in accordance with the Safety Health and Welfare at Work (Construction) Regulations, 2013 (S.I. No. 291) by the Project Supervisor Design Process for the Design Stage (PSDP). It is being made available to the Project Supervisor Construction Stage appointed for the Construction Stage (PSCS) who will incorporate and develop it as required into the final Health and Safety Plan.

1.1 *Extent & Location of Existing Records and Plans.*

Limerick Junction Technical Office to be contacted for existing records and plans.
Drawings which related to this project are as follows:

- **151-4287 (OBC437)**
- **151-4288 (OBC437)**
- **151-4285 (OBC438)**
- **151-4286 (OBC438)**

1.2 *Communication with Designers, PSCS and third parties.*

Communication between parties by phone, e-mail and meetings if required

2 GENERAL DESCRIPTION OF PROJECT

2.1 *Title*

The Project will be known as the “OBC437 & OBC438 Deck & Handrail Renewals”

2.2 *Project Description*

The condition of the bridge decks of footbridges OBC437 and OBC438, both located over the Cork – Cobh railway line in Cobh, is such that the following works are required to ensure ongoing structural integrity and the safety of the users of these footbridges.

- OBC437. Works consist of removal of existing tarmac and timber decking material from the existing bridge deck down to steel deck. Removal of existing hand rails running the length of the bridge along each edge of the deck. Minor steel repairs to the bridge deck. Preparation for and application of waterproof protection to steel bridge deck. Installation of covered drainage channel on the bridge deck along with associated drainage outfalls. Reinstatement of the bridge deck surfacing. Installation of new handrails with mesh infill along both edges of the bridge deck.
- OBC438. Works consist of the complete removal of the existing bridge deck and handrails. Installation of new bridge deck along with handrails with mesh infill. Repairs to the stringers on the access steps. Installation of new bearings on the seaward end of the bridge along with brick and masonry repairs in the area of the bearings.

Closure of the footbridges are required to undertake the works and there will be railway possessions during the works as necessary. While works are underway access across either OBC437 or OBC438 is to be maintained at all times unless by agreement with the Client and Cork Co. Co. Access to the site will be gained via the lower road on the downside of the structures (North of the Structures) and via public car park on the upside of the structure (South of the Structure).

2.3 *Details of Client, Designers, PSDP, PSCS & Other.*

Client for Project.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Designers for Project.

Iarnród Éireann,
Technical Department,
Engineering & New Works Building,
Inchicore,

Dublin 8,
D08 K6Y3

Project Supervisor Design Phase.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

2.4 Site Specific Information

The sites are located at 176 miles 0631 yards (OBC437) and 176 miles 1208 yards (OBC438) on the Cork to Cobh Railway Line on the approach to Cobh Station.

OBC437 provides public pedestrian access from the 'Lower Road' to Whitepoint Moorings residencies and the walkway through the Waterfront Car Park. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond. The bridge spans the railway, private gardens, public roadway and pedestrian footpath accessing the Waterfront Carpark the quay and is immediately adjacent to the Cobh Sailing Club Dinghy Park and private houses.

The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a level paved area and there is a tubular steel fence along the sea wall.

OBC438 provides public pedestrian access from the 'Lower Road' to the Waterfront Car Park and the Cruise Liner Quay. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond.

The bridge spans the railway, railway lands, public roadway and walkway through the Waterfront Carpark. The bridge is also immediately adjacent to Cobh Garda Station and in sight of Cobh Station platform and buildings.

The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a very restricted paved area which immediately leads onto further steps that lead down to the sea. While there is a tubular steel fencing along the sea wall the access to the steps leading to the sea is unguarded.

The following hazards have been noted on the site and controls need to be put in place by the PSCS

- Working at heights
- Access to works site
- Public/Private interface.
- Noise
- Working adjacent to water
- Open steps leading to sea
- Removal of handrails
- Open lattice structure when handrails removed.
- Renewal of handrails

- Removal of deck
- Renewal of deck
- Train Movements
- Fire

2.5 Restriction on Work Activities

As set out in 'Site Specific Information', these bridges span and border a number of types of areas. In addition to ensuring the health and safety of those involved in the works, the health and safety of persons and properties in these areas will need to be protected from the works activities. Work methods and safety measures will need to reflect this requirement. While works are underway access across either OBC437 or OBC438 is to be maintained at all times unless by agreement with the Client and Cork Co. Co.

2.6 Restrictions on Access

Access to the track if required will be via approved Irish Rail access points only. In Cobh there is a machinery access point (APCU-176-1048) located at 176 miles 1023 yards. Access to private lands, Cobh Sailing Club Dinghy Park, the Waterfront Car Park and from the 'Lower Road', will be by agreement with the relevant parties.

2.7 Restrictions on Working Hours

To be ascertained by the PSCS. Proximity to the operational railway, private housing, sailing club, public roads and public areas will have to be considered when the works are planned. This will impact on the times when work can take place.

2.8 Welfare Facilities

Welfare facilities must be provided and accessible to all Irish Rail and Contractors staff required on site for the duration of the works.

2.9 Resources

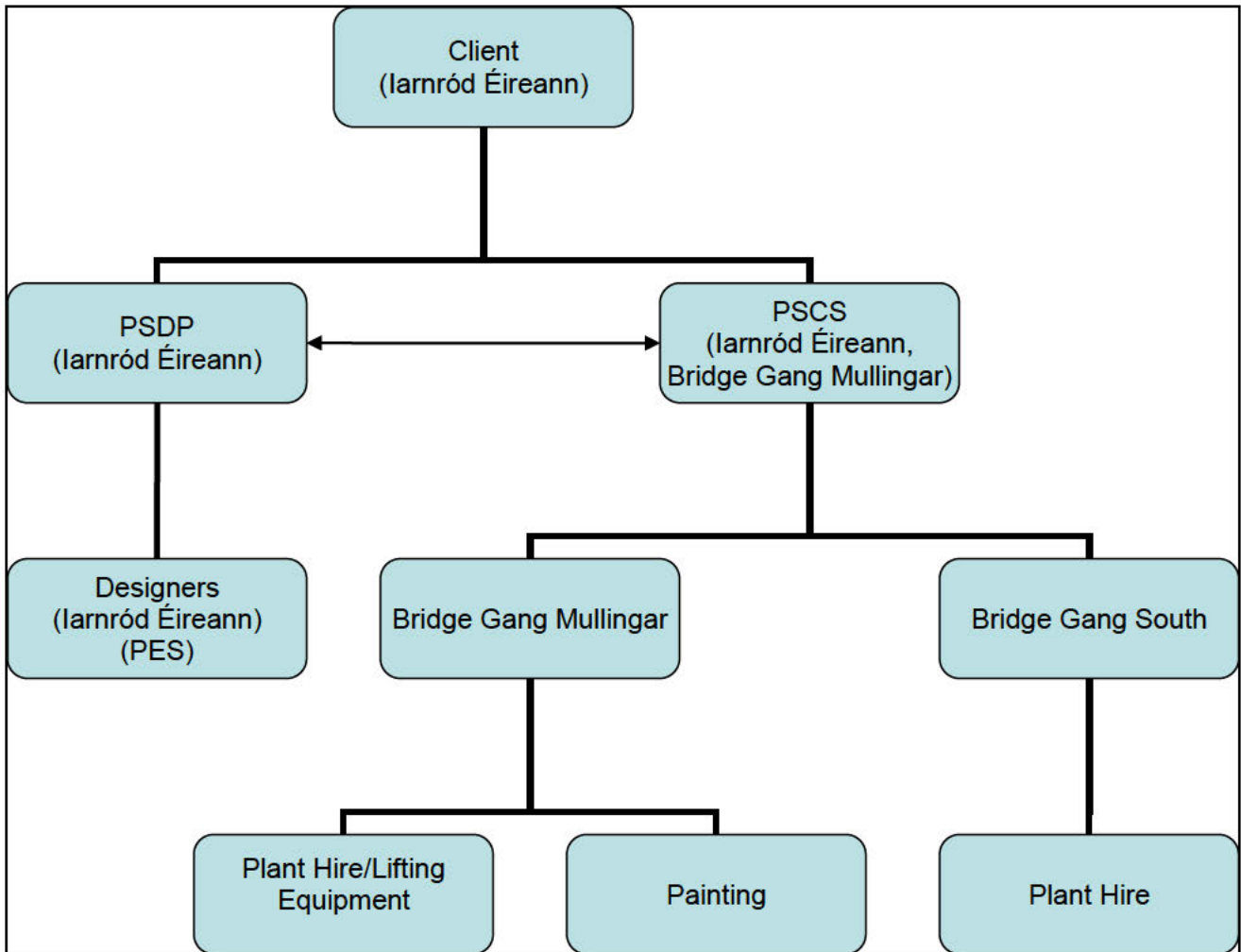
To be allocated by the PSCS

2.10 Notification Requirements

In accordance with the construction regulations (2013), AF1 form is to be notified to the HSA, Signed copy of the form is to be located in the Safety File stored in the site offices.

3 PROJECT SCHEDULE.

3.1 Structure and Organisation



3.2 Timescale and Programme for the Project

To be ascertained by the PSCS

3.3 Permits and Authorisation Requirements

Method statements shall be prepared, submitted and re submitted well in advance so as to allow approval of same by the client's engineer. These method statements shall be updated where affected by design changes or site circumstances.

The following permits at least, shall be required but this is a non-exhaustive list:

- CCE-SMS-005, Contractors permit to Access where required.
- Disposal of waste.

3.4 Emergency Procedures

To be incorporated in to the Construction Stage Health and Safety Plan (CSHSP) and outlined in Method Statements

3.5 Site Rules and Other Restrictions

To be ascertained by the PSCS and incorporated into the CSHSP

4 CONSTRUCTION SEQUENCE

4.1 *Construction Sequence*

To be ascertained by the PSCS

4.2 *Construction Installation and Maintenance*

- The works are to be carried out in accordance to the relevant design information provided by Senior Track and Structures Office Limerick Junction. Any changes to this design must be notified to the PSDP in writing.
- On completion of the works any disturbed ground shall be restored to the satisfaction of the Company's Engineer. Any additional fencing required to secure railway boundary to be erected as necessary.
- All works must comply with the current Irish Rail Technical Management Standards, Quality Management Standards and Safety Management Standards.

5 SIGNIFICANT DESIGN AND CONSTRUCTION HAZARDS

5.1 *Design Assumptions and Control Measures*

All materials provided and all work executed under this Contract shall be in accordance with the relevant European Standard Specifications, British Standard Specifications or British Standard Codes of Practice and the 2013 Construction Regulations.

Technical, safety, health and environmental risk and application data sheets to be provided and the specified control measures implemented.

5.2 *Coordination of Ongoing Design Works and Design Changes*

It is the responsibility of all designers and contractors to notify the PSDP and PSCS of any changes in writing. The PSDP shall then prepare an amended preliminary health and safety plan, which shall be passed to the PSCS for updating the safety and health plan.

All exchanges of design information between designers (including temporary works designers), the Project Supervisor Construction Stage and Contractor shall be promptly forwarded to the Project Supervisors Design Process.

6 SAFETY FILE

The safety file shall include details of the structure and work carried out which may be of relevance to the safety and health of any person who may have to carry out any work on the structure and its associated services in the future. It shall contain as a minimum the following:

- Construction drawings, specifications and pricing document/bills of quantities used and produced throughout the construction process;
- General design criteria adopted and details of the equipment and maintenance facilities within the structure;
- Maintenance procedures and requirements for the structure;
- Manuals and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical

Preliminary Health & Safety Plan

OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork

installations, pressure vessels, control and instrumentation systems, window cleaning facilities)

- Details of the location and nature of utilities and services, including emergency and fire fire-fighting systems.
- Details of specialists/sub-contractors used during the works

The information for the safety file shall be forwarded to the PSDP as follows;

AutoCAD 2013: Construction 'As Built' drawings x 2

Microsoft Word: Specifications x 2, Method statements x 2

Microsoft Excel: Pricing document/Bills of Quantities x 2

PDF: General Design Criteria Adopted x 2, Maintenance Procedures and Requirements for the Structure x 2, Manuals (including operating and maintenance) x 2, Certificates x 2, Warranties x 2, Commissioning test results/certificates x 2, Details of specialists/sub-contractors used during the works x 2

The information for the Safety file from Designers, Project Supervisor Construction Stage, Contractor and others involved in the project shall be issued Project Supervisor Design Process within 14 days of the date of issue of the Final Certificate.

7 HEADLINE RISK & MITIGATION MEASURES

7.1 *Headline Risk & Mitigation Measures*

A list of Risks are outlined in, Safety Station, Risk Assessment Book, in Per Way inspector's office Cork Railway Station. There is also Construction Regulation Folders in each Per Way van.

This includes a Detailed Risks, Mitigation Measures & Risk Assessment.
(This Document should be read in conjunction this Preliminary Health and Safety Plan)

7.2 *Hazards Associated with the Site*

The following hazards have been identified on the site and outlined in section 2.4. A site specific Risk Assessment will need to be carried out by the PSCS and relevant controls will need to be put in place. This is a non-exhaustive list

1. **Hazard:** Working at heights
2. **Hazard:** Access to works site
3. **Hazard:** Interaction with the public
4. **Hazard:** Noise
5. **Hazard:** Working near water
6. **Hazard:** Open steps leading to sea
7. **Hazard:** Train Movements
8. **Hazard:** Removal of handrails
9. **Hazard:** Open lattice structure when handrails removed.
10. **Hazard:** Renewal of handrails
11. **Hazard:** Removal of deck
12. **Hazard:** Renewal of deck
13. **Hazard:** Fire

8 INFORMATION TO BE READ IN CONDUCTION WITH PRELIMINARY HEALTH AND SAFETY PLAN

8.1 *Project Design Information*

- Limerick Junction Technical Office to be contacted in relation to design information

SE&T – Not applicable for this project

ESAT telecoms – Not applicable for this project

Service providers

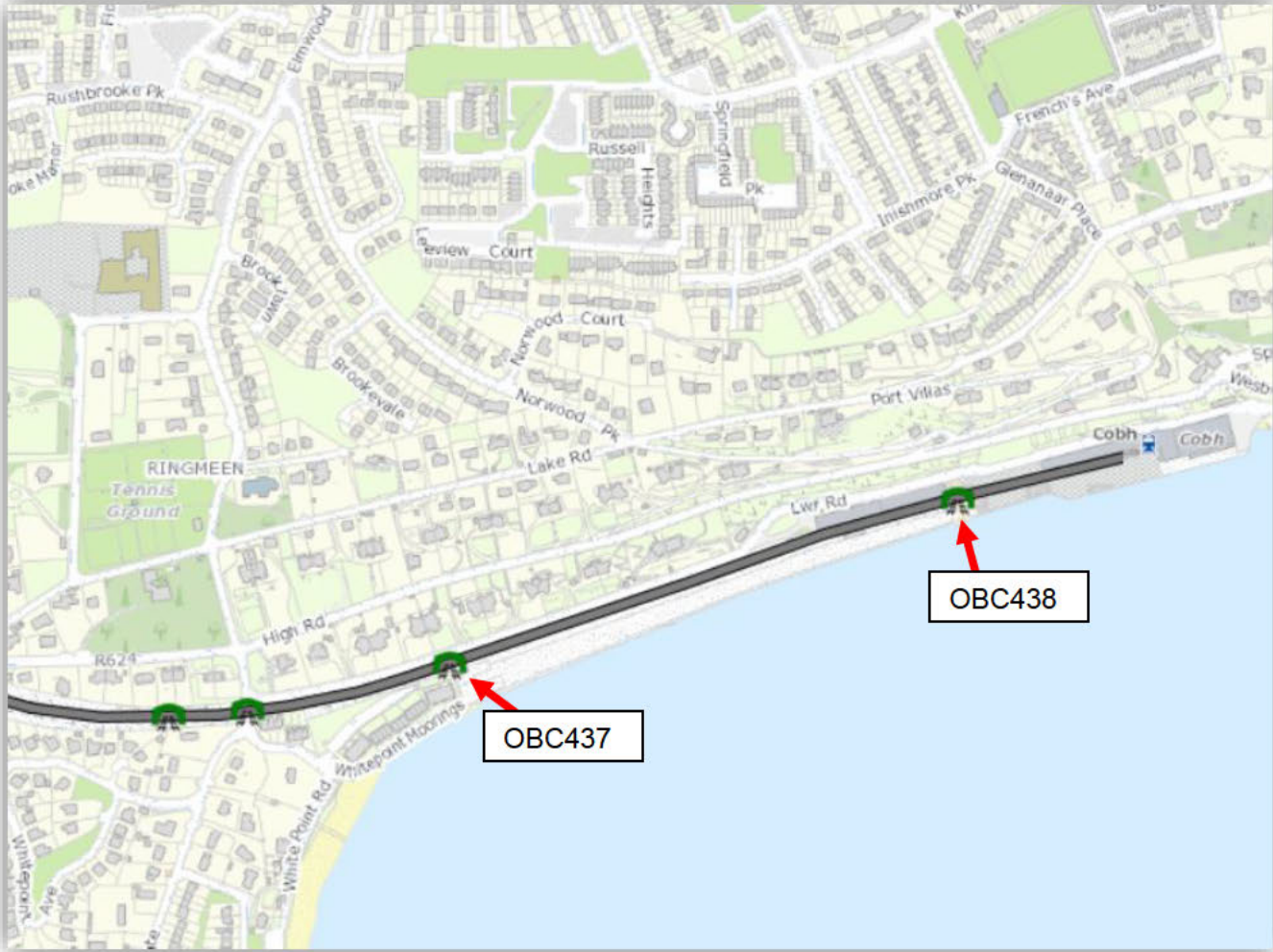
- Service providers have been contacted by the STSE Department re providing details of any buried or over ground services. These details will be passed to the PSCS when they are furnished by the Service Providers.

8.2 *Other Information to be read in Conjunction with Preliminary health and Safety Plan*

- Construction Stage Health and Safety Plan
- Method Statements
- I-PWY-1490 Mobile Gang Work Instruction
- Construction Regulation Folders

9 SITE LOCATION AND YARD LAYOUT PLAN

Site Location



Access Points

- Access to railway via approved Irish Rail Access Points **ONLY**
- Access to lands bounding the railway will be by agreement with relevant landowner
- Access Point A (APCU-176-1048) is pedestrian & large plant/machinery



10 PHOTOGRAPHS

OBC437



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



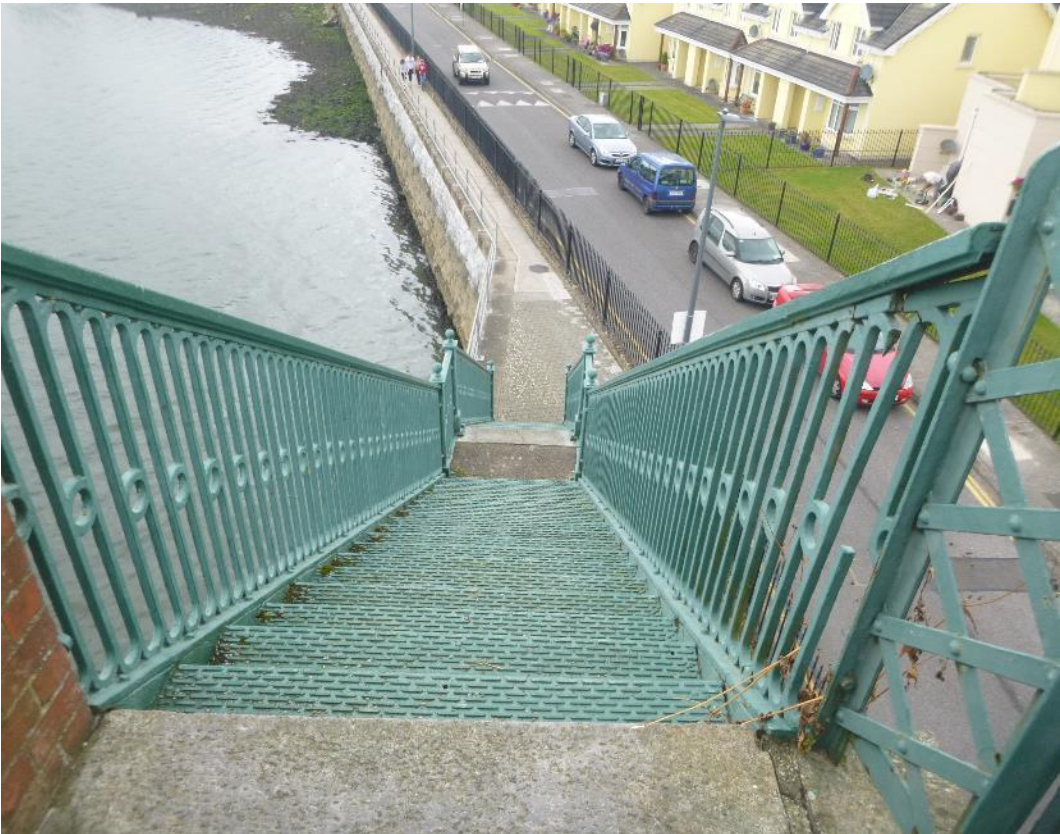
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Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



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OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



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Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork

OBC438



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



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OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



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Preliminary Health & Safety Plan
OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork



11 APPENDIX A



Safety, Health and Welfare at Work (Construction) Regulations 2013

Approved Form (AF 1) Regulation 10

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

Any day on which construction work is carried out (including holidays and weekends) should be counted, even if the work on that day is of short duration. A person day is one individual, including supervisors and specialists, carrying out construction work for one normal working shift.

This Notification is to be made by Registered Post to HSA, Metropolitan Building, James Joyce Street, Dublin 1; or as may be directed by the Authority.

- 1 Client:** Provide name, full address, telephone number and e-mail address for the Client. If more than one Client, please attach details of all Clients on a separate sheet.

Name: Iarnród Éireann
Address: Engineering & New Works Building,
Inchicore,
Dublin 8
Telephone: 01 703 4228 E-Mail: info@irishrail.ie

- 2 Project Supervisor Design Process and Health & Safety Coordinator:** Provide name, full address, telephone number and e-mail address for the PSDP and Health & Safety Coordinator for the Design Process.

PSDP Name: Iarnród Éireann H&S C. Name: _____
Address: Engineering & New Works Building,
Inchicore,
Dublin 8 Address: _____
Telephone: 01 703 4228 Telephone: _____
E-Mail: info@irishrail.ie E-Mail: _____

- 3 Project Supervisor Construction Stage and Health & Safety Coordinator, if known:** Provide name, full address, telephone number and e-mail address for the PSCS and Health & Safety Coordinator for the Construction Stage.

PSCS Name: _____ H&S C. Name: _____
Address: _____ Address: _____
Telephone: _____ Telephone: _____
E-Mail: _____ E-Mail: _____

- 4 Information on Construction Work:** Please provide your details of the following.

Description of Project: The title of the project is "OBC437 & OBC438 Deck and Handrail Renewals" OBC437 and OBC438 are located on the Cork to Cobh line at 176miles 631yards and 176miles 1208yards respectively
Exact Address of Construction Site: OBC437 & OBC438 Lower Rd,
Ringmeen,
Cobh,
Co. Cork
Signed: _____ by or on behalf of the Client
Position: Safety Executive Date: 21-August-2017

12 APPENDIX B

Príomhinnealtóir Bonneagar, Iarnród Éireann Inse Chór, Baile Átha Cliath 8.

Chief Civil Engineer, Iarnrod Éireann, Inchicore, Dublin 8

T 01 703 4201 [REDACTED] www.irishrail.ie



Iarnród Éireann,
Engineering & New Works Building,
Inchicore,
Dublin 8.

21st of August 2017

Re: Appointment of Project Supervisor for the Design Process for OBC437 & OBC438 Deck and Handrail Renewals on the Cork to Cobh line at 176miles 631yards and 176miles 1208yards respectively

Dear Sir/Madam,

The Client, being Iarnród Éireann, wishes to confirm the appointment of Iarnród Éireann, as Project Supervisor for the Design Process for the Project and to confirm the appointment and acceptance of the role in accordance with Section 17 of the Safety Health and Welfare at Work Act and Part 2 of the 2013 Construction Regulations.

In addition, it is confirmed and agreed that, Iarnród Éireann, undertakes that they are competent to and shall perform the duties of Project Supervisor appointed for the Design Process as required by the Regulations and in accordance with Section 17 of the 2005 Act, the duty to ensure, in so far as is reasonably practicable, that the works are constructed and can be maintained so as to be safe and without risk to health.

Yours faithfully,

[REDACTED] (by or on behalf of)

The Client,
Iarnród Éireann

Date: 21/08/17



PRELIMINARY HEALTH AND SAFETY PLAN

**OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork
Located at 176 miles 1208 yards on the Cork to Cobh Railway Line**

Senior Track & Structures Engineer's Office,
Limerick Junction Station,
Limerick Junction,
County Tipperary.
16th April 2018

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Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

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1 INTRODUCTION

This preliminary Health and Safety Plan has been prepared in accordance with the Safety Health and Welfare at Work (Construction) Regulations, 2013 (S.I. No. 291) by the Project Supervisor Design Process for the Design Stage (PSDP). It is being made available to the Project Supervisor Construction Stage appointed for the Construction Stage (PSCS) who will incorporate and develop it as required into the final Health and Safety Plan.

1.1 *Extent & Location of Existing Records and Plans.*

Limerick Junction Technical Office to be contacted for existing records and plans.
Drawings which related to this project are as follows:

- **151-5054 (Temporary Works Scaffolding Details)**

1.2 *Communication with Designers, PSCS and third parties.*

Communication between parties by phone, e-mail and meetings if required

2 GENERAL DESCRIPTION OF PROJECT

2.1 *Title*

The Project will be known as the “OBC438 Bridge Painting”

2.2 *Project Description*

The condition of the paint system of footbridge OBC438, located over the Cork – Cobh railway line in Cobh, is such that the following works are required to ensure ongoing integrity of the footbridge.

- Works consist of the erection of scaffolding around the structure, which is to be fully enclosed with shrink-wrap. Scaffolding and shrink-wrap to fully encapsulate the structure. There will be no scaffolding below the bridge structure over the track. Once structure is encapsulated all surfaces are to be prepared for painting. There are separate preparation specifications for the “steel works sections and fresh galvanise sections”. Once all surfaces are prepared the structure is to be painted in line with painting specification. Upon completion of works site will be demobilised and bridge will be re-open to the public.

Closure of the footbridge will be required to facilitate the works and there will be railway possessions during the works as necessary. Access to the site will be gained via the lower road on the downside of the structures (North of the Structures) and via public car park on the upside of the structure (South of the Structure).

2.3 ***Details of Client, Designers, PSDP, PSCS & Other.***

Client for Project.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Designers for Project.

Iarnród Éireann,
Technical Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Project Supervisor Design Phase.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

2.4 ***Site Specific Information***

The site is located at 176 miles 1208 yards on the Cork to Cobh Railway Line on the approach to Cobh Station.

OBC438 provides public pedestrian access from the 'Lower Road' to the Waterfront Car Park and the Cruise Liner Quay. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond. The bridge spans the railway, railway lands, public roadway and walkway through the Waterfront Carpark. The bridge is also immediately adjacent to Cobh Garda Station and in sight of Cobh Station platform and buildings. The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a very restricted paved area which immediately leads onto further steps that lead down to the sea.

The following hazards have been noted on the site and controls need to be put in place by the PSCS

- Working at heights
- Access to works site
- Public/Private interface.
- Noise
- Working adjacent to water
- Use of high pressure equipment

- Use of chemicals/paints
- Train movements

2.5 Restriction on Work Activities

As set out in 'Site Specific Information', the bridge spans and borders a number of types of areas. In addition to ensuring the health and safety of those involved in the works, the health and safety of persons and properties in these areas will need to be protected from the works activities. Work methods and safety measures will need to reflect this requirement. While works are underway public access across OBC438 will not be permitted. This is to be notified and agreed with the Client and Cork Co. Co.

2.6 Restrictions on Access

Access to the track if required will be via approved Irish Rail access points only. In Cobh there is a machinery access point (APCU-176-1048) located at 176 miles 1023 yards. Access to the Waterfront Car Park will be from the 'Lower Road'.

2.7 Restrictions on Working Hours

To be ascertained by the PSCS. Proximity to the operational railway, private housing, public roads and public areas will have to be considered when the works are planned. This will impact on the times when work can take place.

2.8 Welfare Facilities

Welfare facilities must be provided and accessible to all Irish Rail and Contractors staff required on site for the duration of the works.

2.9 Resources

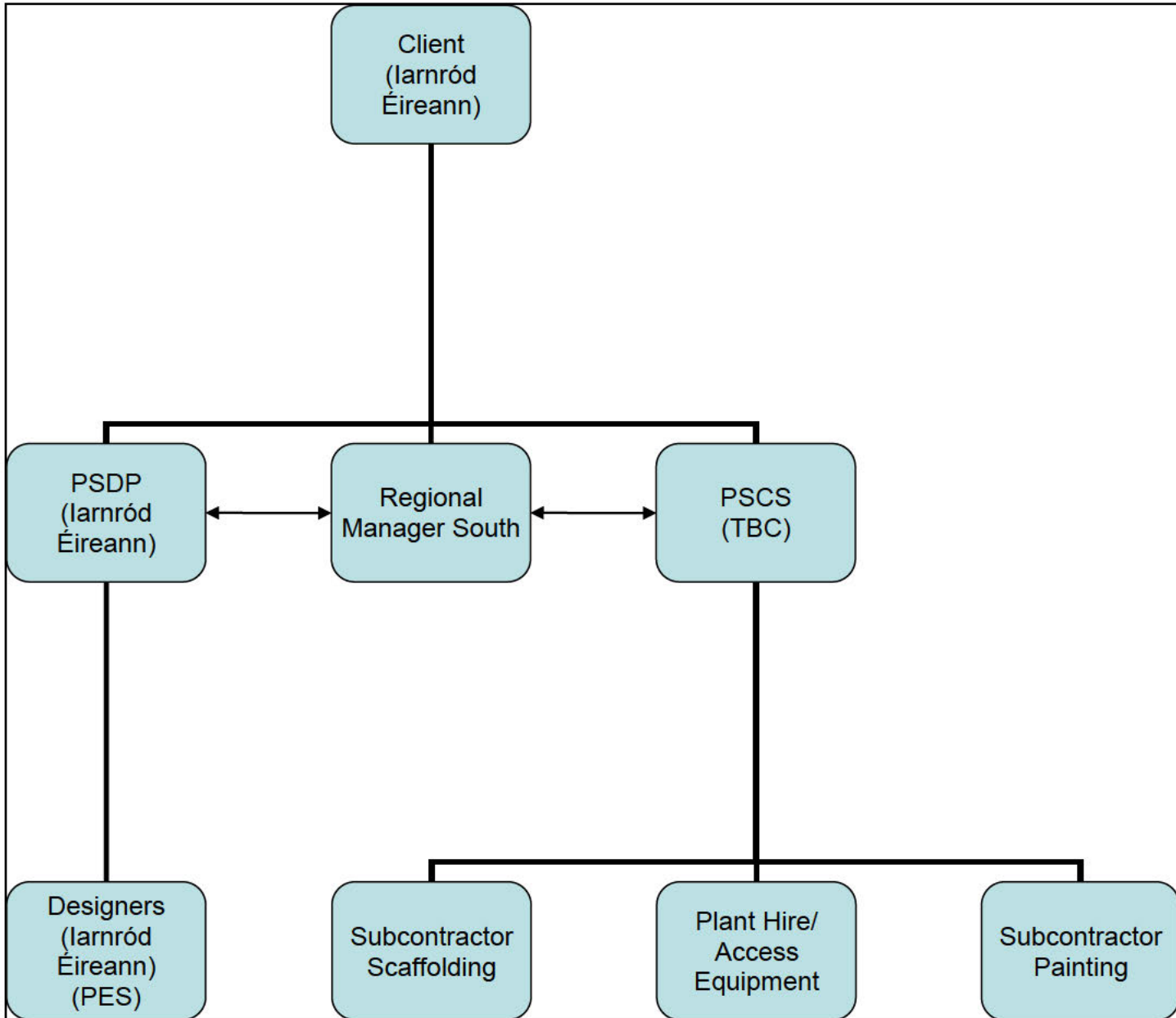
To be allocated by the PSCS

2.10 Notification Requirements

In accordance with the construction regulations (2013), AF1 form is to be notified to the HSA, Signed copy of the form is to be located in the Safety File stored in the site offices.

3 PROJECT SCHEDULE.

3.1 Structure and Organisation



3.2 Timescale and Programme for the Project

To be ascertained by the PSCS

3.3 Permits and Authorisation Requirements

Method statements shall be prepared, submitted and re submitted well in advance so as to allow approval of same by the client's engineer. These method statements shall be updated where affected by design changes or site circumstances.

The following permits at least, shall be required but this is a non-exhaustive list:

- CCE-SMS-005, Contractors permit to Access where required.
- Disposal of waste.

3.4 ***Emergency Procedures***

To be incorporated in to the Construction Stage Health and Safety Plan (CSHSP) and outlined in Method Statements

3.5 ***Site Rules and Other Restrictions***

To be ascertained by the PSCS and incorporated into the CSHSP

4 **CONSTRUCTION SEQUENCE**

4.1 ***Construction Sequence***

To be ascertained by the PSCS

4.2 ***Construction Installation and Maintenance***

- The works are to be carried out in accordance to the relevant design information provided by Senior Track and Structures Office Limerick Junction. Any changes to this design must be notified to the PSDP in writing.
- On completion of the works any disturbed ground shall be restored to the satisfaction of the Company's Engineer. Any additional fencing required to secure railway boundary to be erected as necessary.
- All works must comply with the current Irish Rail Technical Management Standards, Quality Management Standards and Safety Management Standards.

5 **SIGNIFICANT DESIGN AND CONSTRUCTION HAZARDS**

5.1 ***Design Assumptions and Control Measures***

All materials provided and all work executed under this Contract shall be in accordance with the relevant European Standard Specifications, British Standard Specifications or British Standard Codes of Practice and the 2013 Construction Regulations.

Technical, safety, health and environmental risk and application data sheets to be provided and the specified control measures implemented.

5.2 ***Coordination of Ongoing Design Works and Design Changes***

It is the responsibility of all designers and contractors to notify the PSDP and PSCS of any changes in writing. The PSDP shall then prepare an amended preliminary health and safety plan, which shall be passed to the PSCS for updating the safety and health plan.

All exchanges of design information between designers (including temporary works designers), the Project Supervisor Construction Stage and Contractor shall be promptly forwarded to the Project Supervisors Design Process.

6 **SAFETY FILE**

The safety file shall include details of the structure and work carried out which may be of relevance to the safety and health of any person who may have to carry out any work on the structure and its associated services in the future. It shall contain as a minimum the following:

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

- Construction drawings, specifications and pricing document/bills of quantities used and produced throughout the construction process;
- General design criteria adopted and details of the equipment and maintenance facilities within the structure;
- Maintenance procedures and requirements for the structure;
- Manuals and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical installations, pressure vessels, control and instrumentation systems, window cleaning facilities)
- Details of the location and nature of utilities and services, including emergency and fire fire-fighting systems.
- Details of specialists/sub-contractors used during the works

The information for the safety file shall be forwarded to the PSDP as follows;

AutoCAD 2013: Construction 'As Built' drawings x 2

Microsoft Word: Specifications x 2, Method statements x 2

Microsoft Excel: Pricing document/Bills of Quantities x 2

PDF: General Design Criteria Adopted x 2, Maintenance Procedures and Requirements for the Structure x 2, Manuals (including operating and maintenance) x 2, Certificates x 2, Warranties x 2, Commissioning test results/certificates x 2, Details of specialists/sub-contractors used during the works x 2

The information for the Safety file from Designers, Project Supervisor Construction Stage, Contractor and others involved in the project shall be issued Project Supervisor Design Process within 14 days of the date of issue of the Final Certificate.

7 HEADLINE RISK & MITIGATION MEASURES

7.1 *Headline Risk & Mitigation Measures*

A list of Risks are outlined in, Safety Station, Risk Assessment Book, in Per Way inspector's office Cork Railway Station. There is also Construction Regulation Folders in each Per Way van.

This includes a Detailed Risks, Mitigation Measures & Risk Assessment.
(This Document should be read in conjunction this Preliminary Health and Safety Plan)

7.2 *Hazards Associated with the Site*

The following hazards have been identified on the site and outlined in section 2.4. A site specific Risk Assessment will need to be carried out by the PSCS and relevant controls will need to be put in place. This is a non-exhaustive list

1. **Hazard:** Working at heights
2. **Hazard:** Access to works site
3. **Hazard:** Public/Private interface
4. **Hazard:** Noise
5. **Hazard:** Working adjacent to water
6. **Hazard:** Use of high pressure equipment
7. **Hazard:** Use of chemicals/paints
8. **Hazard:** Train Movements

8 INFORMATION TO BE READ IN CONDUCTION WITH PRELIMINARY HEALTH AND SAFETY PLAN

8.1 *Project Design Information*

- Limerick Junction Technical Office to be contacted in relation to design information

SE&T – Not applicable for this project

ESAT telecoms – Not applicable for this project

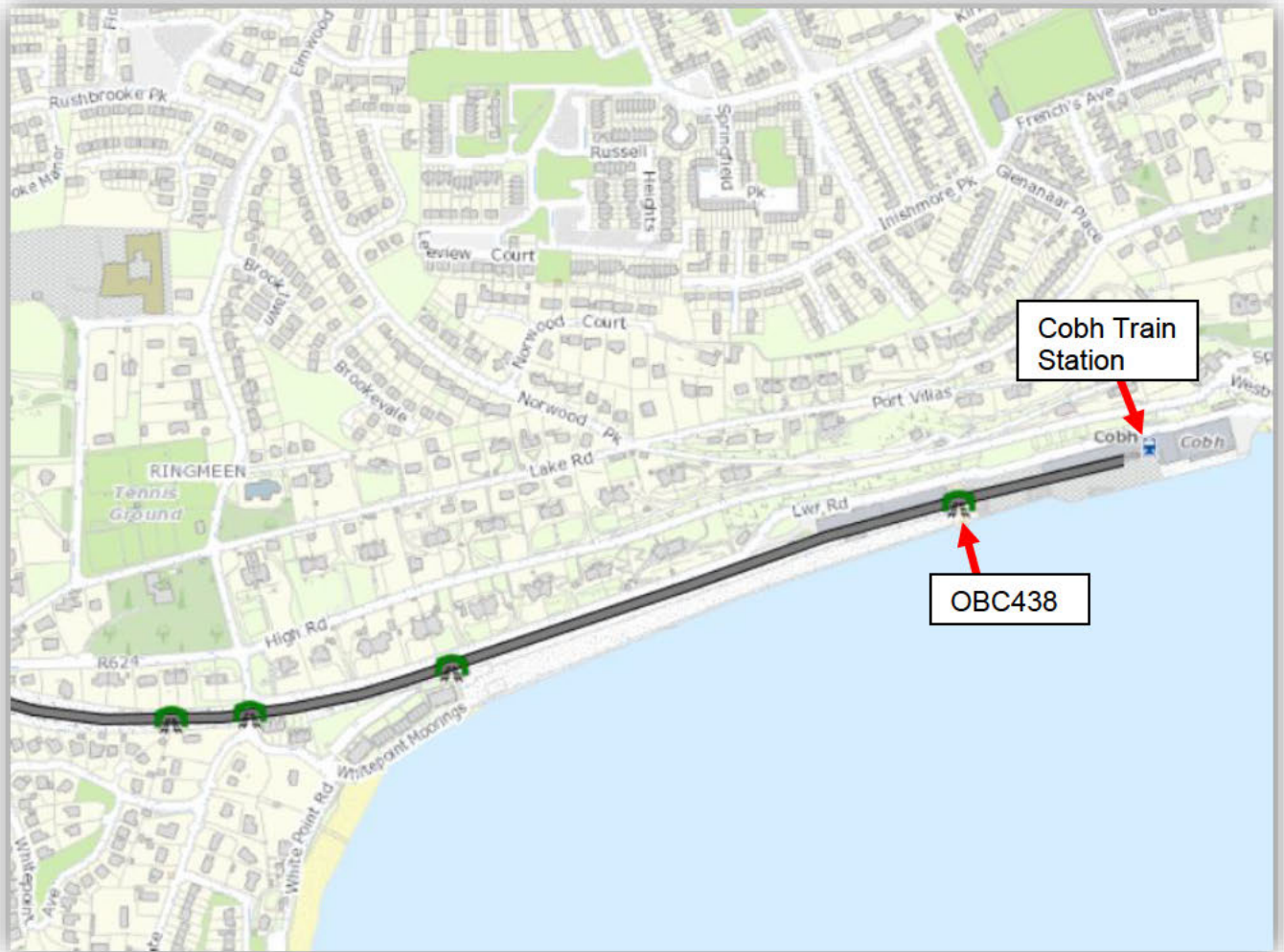
Service providers – Not applicable for this project

8.2 *Other Information to be read in Conjunction with Preliminary health and Safety Plan*

- Construction Stage Health and Safety Plan
- Method Statements
- I-PWY-1490 Mobile Gang Work Instruction
- Construction Regulation Folders

9 SITE LOCATION AND YARD LAYOUT PLAN

Site Location



Access Points

- Access to railway via approved Irish Rail Access Points **ONLY**
- Access to lands bounding the railway will be by agreement with relevant landowner
- Access Point A (APCU-176-1048) is pedestrian & large plant/machinery



10 PHOTOGRAPHS

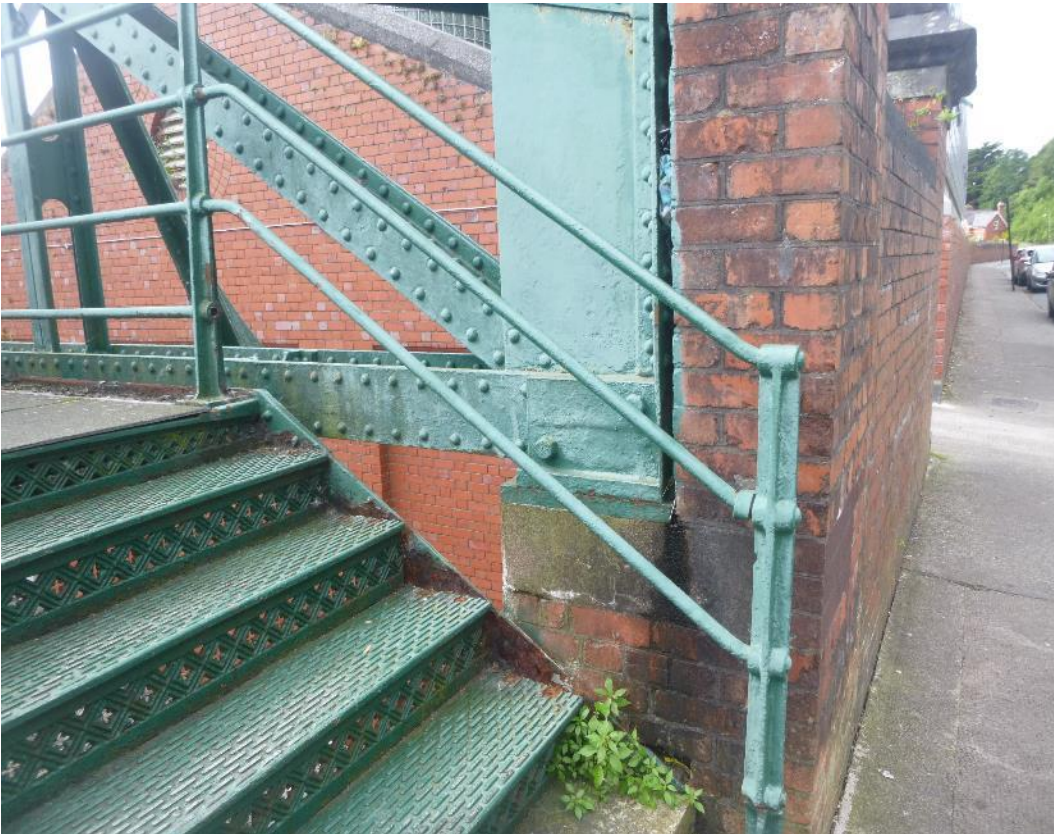
OBC438



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
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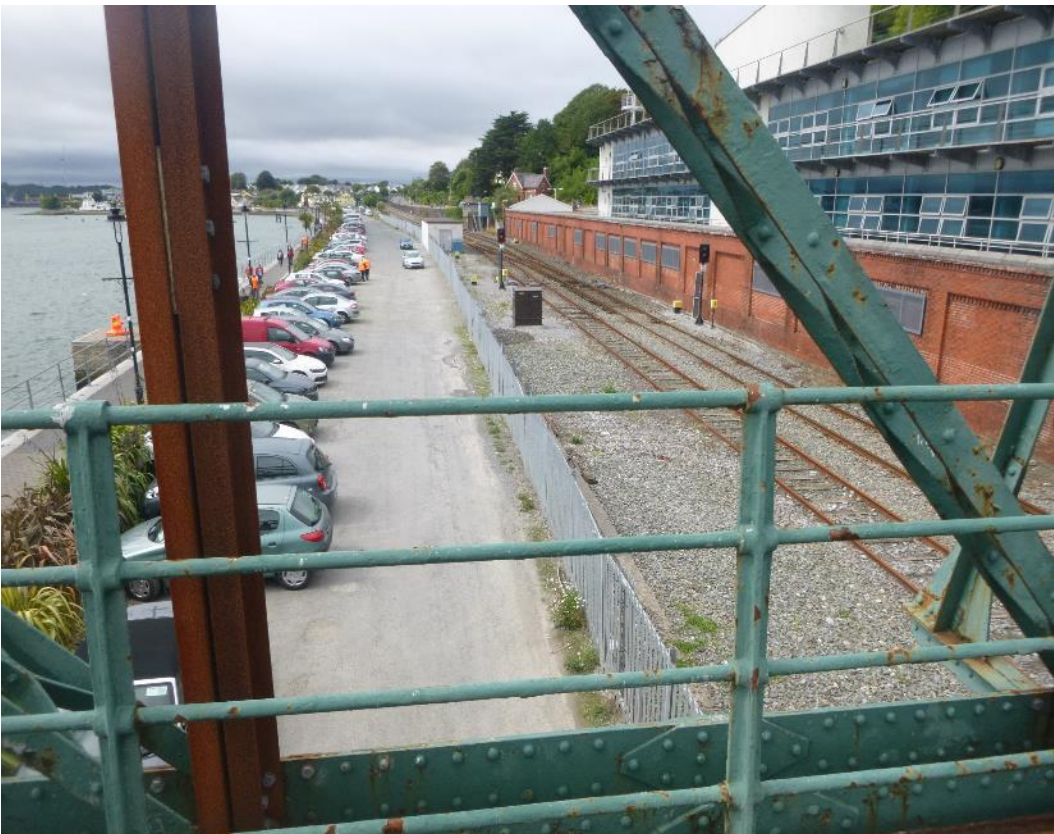
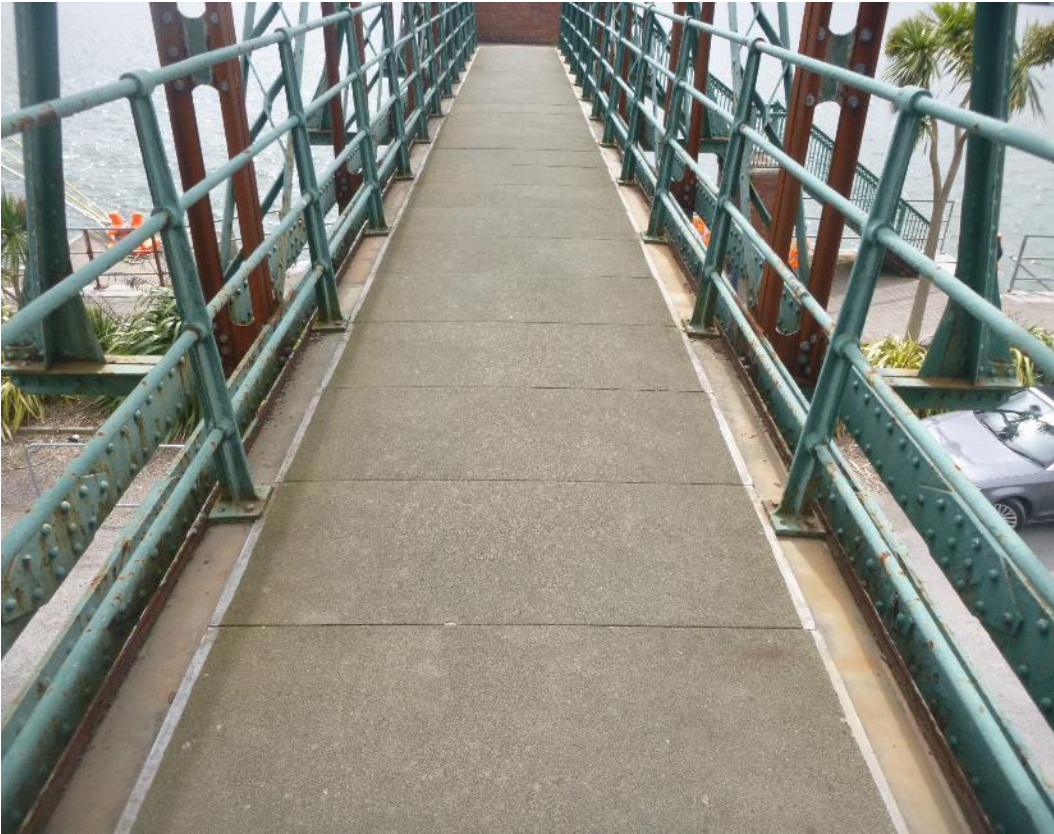
Preliminary Health & Safety Plan
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11 APPENDIX A



Safety, Health and Welfare at Work (Construction) Regulations 2013

Approved Form (AF 1) Regulation 10

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

Any day on which construction work is carried out (including holidays and weekends) should be counted, even if the work on that day is of short duration. A person day is one individual, including supervisors and specialists, carrying out construction work for one normal working shift.

This Notification is to be made by Registered Post to HSA, Metropolitan Building, James Joyce Street, Dublin 1; or as may be directed by the Authority.

- 1 Client:** Provide name, full address, telephone number and e-mail address for the Client. If more than one Client, please attach details of all Clients on a separate sheet.

Name: Iarnród Éireann
Address: Engineering & New Works Building,
Inchicore,
Dublin 8
Telephone: 01 703 4228 E-Mail: info@irishrail.ie

- 2 Project Supervisor Design Process and Health & Safety Coordinator:** Provide name, full address, telephone number and e-mail address for the PSDP and Health & Safety Coordinator for the Design Process.

PSDP Name: Iarnród Éireann H&S C. Name: _____
Address: Engineering & New Works Building,
Inchicore,
Dublin 8 Address: _____
Telephone: 01 703 4228 Telephone: _____
E-Mail: info@irishrail.ie E-Mail: _____

- 3 Project Supervisor Construction Stage and Health & Safety Coordinator, if known:** Provide name, full address, telephone number and e-mail address for the PSCS and Health & Safety Coordinator for the Construction Stage.

PSCS Name: _____ H&S C. Name: _____
Address: _____ Address: _____
Telephone: _____ Telephone: _____
E-Mail: _____ E-Mail: _____

- 4 Information on Construction Work:** Please provide your details of the following.

Description of Project: The title of the project is "OBC438 Bridge Painting" OBC438 is located on the Cork to Cobh line at 176miles 1208yards

Exact Address of Construction Site: OBC438 Lower Rd,
Ringmeen,
Cobh,
Co. Cork

Signed: _____ or on behalf of the Client

Position: Safety Executive Date: 26-April-2018

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

12 APPENDIX B

Príomhinnealtóir Bonneagar, Iarnród Éireann Inse Chór, Baile Átha Cliath 8.

Chief Civil Engineer, Iarnrod Eireann, Inchicore, Dublin 8

T 01 703 4201 [REDACTED] www.irishrail.ie



Iarnród Éireann,
Engineering & New Works Building,
Inchicore,
Dublin 8.

26th of April 2018

Re: Appointment of Project Supervisor for the Design Process for OBC438 Bridge Painting Works on the Cork to Cobh line at 176miles 1208yards

Dear Sir/Madam,

The Client, being Iarnród Éireann, wishes to confirm the appointment of Iarnród Éireann, as Project Supervisor for the Design Process for the Project and to confirm the appointment and acceptance of the role in accordance with Section 17 of the Safety Health and Welfare at Work Act and Part 2 of the 2013 Construction Regulations.

In addition, it is confirmed and agreed that, Iarnród Éireann, undertakes that they are competent to and shall perform the duties of Project Supervisor appointed for the Design Process as required by the Regulations and in accordance with Section 17 of the 2005 Act, the duty to ensure, in so far as is reasonably practicable, that the works are constructed and can be maintained so as to be safe and without risk to health.

Yours faithfully,

Signed:

[REDACTED] (by or on behalf of)
The Client,
Iarnród Éireann

Date: 26/04/18

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Project Supervisor Design Process (PSDP) Appointment Acceptance Form

Project: OBC438 Bridge Painting Works on the Cork to Cobh line at
176miles 1208yards


Client: Iarnród Éireann

Name of PSDP: Iarnród Éireann

We declare that we are competent to carry out the duties of Project Supervisor Design Process on the above project and to perform the duties of the PSDP as detailed in the Safety, Health and Welfare at Work (Construction) Regulations 2013.

We hereby declare our acceptance of the conditions and appointment as Project Supervisor Design Process on the above contract.

Signed:


PSDP,
Iarnród Éireann

(by or on behalf of)

Date:

26/04/18.

Rates of Pay and Conditions of Employment Certificate

To:	<i>The Employer</i>	
	<i>Address of Employer</i>	
	<i>For the attention of</i>	
Date:		

From:	<i>The Contractor's Representative</i>	
--------------	--	--

Regarding:	<i>The Contract</i>	7109-24 Division 17 Rural/Urban Fencing	
	<i>Period of interim statement</i>	From	To

A Dhaoine Uaisle

We refer to the above Contract.

Terms defined in the Conditions of the Contract have the same meaning in this certificate.

The Contractor certifies that, in respect of the work to which the interim statement referred to above relates, clause 5.3 of the Contract has been observed by the Contractor and the employers of all work persons on the Site. This certification includes, but is not limited to, the following:

- the rates of pay and the conditions of employment (including in relation to pension contributions) of each work person comply with all applicable statutory provisions, and those rates and conditions have been no less favourable than those for the relevant category of work person in any employment agreements registered under the Industrial Relations Acts 1946 to 2004
- all wages and other money due to each work person have been paid in accordance with the Payment of Wages Act 1991 and have not been more than 1 month in arrears or unpaid
- payments due to be paid on behalf of each work person (including pension contributions, where applicable) have been paid
- all pension contributions and other amounts due to be paid on behalf of each work person, have been paid
- all deductions from payments to work persons required by law have been made and paid on, as required by Law
- in relation to the employment of work persons on the Site, the Safety, Health and Welfare at Work Act, 2005 and all employment law including the Employment Equality Act 1998, the Industrial Relations Acts 1946 to 2004, the National Minimum Wage Act 2000, regulations, codes of practices, legally binding determinations of the Labour Court and registered employment agreements under those Laws have been observed.

Is mise, le meas

Signed by

<i>Name of Contractor</i>	
<i>Signature of Contractor i.e Contractor's Representative</i>	

Tender and Schedule

for

The Project 7109-24 Division 17 Rural/Urban Fencing

using the

Short Public Works Contract

Office of Government Procurement

Short Public Works Contract
Document Reference FTS6 v.1.4
30 June 2016

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Published by: Office of Government Procurement
Department of Public Expenditure and Reform
Government Buildings
Upper Merrion Street
Dublin 2.

FORM OF TENDER

To	<i>The Employer</i>	Iarnród Éireann
	<i>Address of Employer</i>	Engineering and New Works Building, Inchicore, Dublin 8, DO8 K6Y3.
	<i>For the attention of</i> ¹	██████████
	<i>Regarding</i> ²	7109-24 Division 17 Rural/Urban Fencing
Date		

A Dhaoine Uaisle

We have examined and understand the Conditions of the *Short Public Works Contract* and the documents listed in the attached Schedule. We offer to complete the Works on the terms of and in conformity with that contract for the lump sum of

euro ³ excluding all VAT ⁴ ,
--

as adjusted in accordance with the Contract.

If included in the attached Schedule or elsewhere in the attached documents, we also offer to accept appointment as project supervisor for the construction stage on terms required by the Contract if appointed as Contractor for the Works.

In consideration of you providing us with the contract documents, we agree not to withdraw this offer until the latest of:

- (a) 183⁵ days after the end of the last day for submission of this Tender
- (b) expiry of at least 21 days written notice to terminate this Tender given by us, which may not issue prior to the expiry of the period at (a)

Your acceptance of this Tender within that time will result in the Contract being formed between us.

We agree that you are not bound to accept the lowest or any tender you may receive.

Is sinne, le meas

¹ Insert name of contact person identified in tender documents

² Insert name of Project

³ Lump sum in words

⁴ Please refer to www.revenue.ie for details of current rates of VAT

⁵ If not otherwise specified, read as 180 days

Tender & Schedule for Public Works Short Form of Contract

Signature of authorised person

Name in capitals

Title

On behalf of

Tenderer's name in full

Postal address

In the presence of

Name of witness

Signature of witness

Witness's occupation

Witness's address

TENDER ACCEPTED

Signed on behalf of the Employer⁶

*Signature of an officer authorised
to sign contracts on behalf of the
Employer*

Name in capitals

Title

Date

⁶ To be completed and signed only after all award procedures have been completed. Acceptance of the tender will result in a binding contract.

SCHEDULE

Clause

1.1	Employer's [REDACTED]	[REDACTED]
	Time for Completion	5 days, starting on the day this Contract comes into effect or as stated in another contract document
1.3	Other documents in the Contract	Volume A - Works Requirements Volume B - Form of Tender & Schedule Volume D - Short Public Works Contract (PW-CF6 v1.12)
2.6	Rate of liquidated damages	€ per day
2.8	Weather station	Cork Airport Weather Station
3.15	Defects Certificate issued	Between 12 and 13 months after the date on which the Works are certified substantially complete.
4.1	Interim payment	Monthly 90% of the value of Works completed and materials delivered to the Site with title vested in the Employer to the Employer's satisfaction
	Percentage of Price to be paid after Employer certifies the Works are substantially complete	95%
4.2, 4.3	Time for payment	10 working days after Employer receives invoice for certified sum
10.3	Minimum indemnity limit for public liability insurance.	€5,000 for any one event. (Limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution.)
	Minimum indemnity limit for employer's liability insurance	€13,000 for any one event
10.4	Maximum levels of excess for	
	■ insurance of the Works and goods and materials for the Works	€
	■ public liability (property damage)	€6,500 ⁷
	■ public liability (death, illness or injury)	no excess
	■ employer's liability	€6,500 ⁸
12.3	Percentage of the unpaid portion of the Price to be paid if Employer terminates, clause 12. does not apply, and Employer appoints another contractor within 12 months	4%

⁷ If no amount stated, €6,500 applies

⁸ If no amount stated, €6,500 applies

Tender & Schedule for Public Works Short Form of Contract

14 Project Supervisor Contractor is to be appointed as Project Supervisor for the Construction Stage.

15.2, Body to appoint conciliator, if not agreed The Royal Institute of the Architects of Ireland

15.3 Person to appoint adjudicator, if not agreed Chairperson of the Panel of Adjudicators

NOTE Shaded text (like this) may be amended

Short Public Works Contract

Conditions

Office of Government Procurement

SHORT PUBLIC WORKS CONTRACT

Short Public Works Contract
Document Reference PW-CF6 v1.12
5 June 2019

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Published by: Office of Government Procurement
Department of Public Expenditure and Reform
Government Buildings
Upper Merrion Street
Dublin 2

CONDITIONS

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CONDITIONS

1. The Contract

1.1 In this Contract

- The **Assigned Certifier** is the person so assigned by the Employer to certify compliance with the relevant requirements under the Building Control Regulations.
- The **Building Control Regulations** are the Building Control Regulations 1997-2014 and any amendments thereto to the extent that they apply to the Works.
- **Compensation Event** is defined in clause 4.5.
- The **Contractor** is as named in the accepted tender.
- The **Contractor's Personnel** are the Contractor's
 - representative and supervisor
 - subcontractors and suppliers of any tier and
 - employees and other persons working for the Contractor, subcontractors or suppliers of any tier or otherwise assisting the Contractor for the Works.
- **Data Protection Law** is all applicable data protection Law, including the General Data Protection Regulation (Regulation (EU) 2016/679).
- The **Defects Certificate** is a certificate issued by the Employer's Representative under clause 3.15 and may include a list of parts of the Works that do not comply with this Contract.
- The **Employer** is as named in the accepted tender.
- The **Employer's Representative** is named in the Schedule or an architect, engineer, surveyor or other person otherwise notified by the Employer according to clause 5.1.
- **Personal Data** shall have the meaning set out in the General Data Protection Regulation in respect of any such personal data processed on behalf of the Employer.
- The **Price** is as stated in the accepted tender, as may be adjusted according to this Contract.
- The **Site** is the place where the Contractor is to construct the Works and anywhere else this Contract says is part of the Site.
- The **Time for Completion** is the period stated in the Schedule or, if not stated there, in another Contract document, in either case as may be extended under clause 2.7.
- The **Works** are what the Contractor is to complete and hand over to the Employer, as described in this Contract.

1.2 Unless the context indicates otherwise

- references to clause numbers in the Conditions or the Schedule are to the clauses of the Conditions
- words in the singular also mean the plural and the other way around
- words in a gender also mean other genders
- **person** includes incorporated and unincorporated organisations
- references to a **month** are to a calendar month and to a **day** are to a calendar day
- references to a **working day** are to a day other than Saturday, Sunday, a public holiday established under the Organisation of Working Time Act 1997, or Good Friday.
- references to **the parties** are to the Employer and the Contractor
- references to a law include amendments, replacements and re-enactments
- **substantially complete** and **substantial completion** mean that
 - the Works have reached a stage of completion that the Employer can take them over and use them and
 - if there are any defects, in the Employer's Representative's opinion both (a) the Contractor has good reason for not having rectified them already and (b) neither the defects nor their rectification are likely to prevent the Works from being used conveniently

SHORT PUBLIC WORKS CONTRACT

- and safely and
 - any other requirements for substantial completion in this Contract have been met and
 - the details in the Certificate of Compliance on Completion of the Works or a part thereof have been included on the Register maintained under Part IV of the Building Control Regulations.
- 1.3 This Contract is the entire agreement between the parties about the Works and consists of
 - these Conditions, the form of tender and acceptance, and the Schedule and
 - the documents listed in the Schedule as part of this Contract.
- 1.4 If there is a discrepancy between these Conditions and other documents in this Contract, these Conditions prevail. If there is a pricing document in this Contract, and there is a discrepancy between the pricing document and other documents in this Contract, the other documents prevail. If a party discovers a discrepancy within or between the documents describing the Works, it must notify the other as soon as practicable, and the Employer's Representative will resolve the discrepancy by an instruction.
- 1.5 This Contract comes into effect when the Employer sends the Contractor written acceptance of the Contractor's tender for the Works.
- 1.6 The Contractor must construct and complete the Works at its own expense, complying with this Contract, the Employer's Representative's written instructions and the law.
- 1.7 The Contractor may not assign this Contract or any part of it without the Employer's consent.
- 1.8 No rule of legal interpretation applies to the disadvantage of a party on the basis that the party provided this Contract or any of it or that a term of this Contract is for the party's benefit.
- 1.9 The Contractor agrees that:
 - (a) the Contractor shall process Personal Data only in accordance with the Contract and Data Protection Law;
 - (b) the Contractor shall ensure persons authorised by the Contractor to process Personal Data are subject to confidentiality obligations as provided under Data Protection Law;
 - (c) the Contractor must take appropriate technical and organisational security measures as are required to comply with Data Protection Law;
 - (d) the Contractor may engage sub-processors to perform processing on its behalf, provided it gives prior written notice and informs the Employer of any changes concerning the status of such sub-processors and allows the Employer reasonable opportunity to object to such changes;
 - (e) where any sub-processor of the Contractor will be processing Personal Data on behalf of the Employer, the Contractor shall ensure that a written contract exists between the Contractor and the sub-processor containing clauses equivalent to those imposed on the Contractor by the Contract;
 - (f) the Contractor shall delete or return all Personal Data as directed by the Employer's Representative and not later than when the Contractor completes its contractual duties relating to such data processing;
 - (g) the Contractor shall: (i) make available to the Employer all information necessary to demonstrate compliance with this Clause; and (ii) allow for and assist with audits, including inspections, conducted by or on behalf of the Employer, in order to ensure such compliance, provided however that the Employer shall be entitled, at its discretion, to accept adherence by the Contractor to an approved code of conduct or an approved certification mechanism to aid demonstration by the Contractor that it is compliant;
 - (h) the Contractor shall inform the Employer's Representative immediately if, in its opinion, it receives an direction which infringes Data Protection Law;

- (i) the Contractor shall notify the Employer's Representative within 24 hours of becoming aware of any act or omission [including breach of security] leading to the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of or access to Personal Data transmitted, stored or otherwise processed and shall provide co-operation and assistance to the Employer as is required to mitigate the effects of, and comply with applicable reporting obligations in respect of, such act or omission; and
- (j) no Personal Data shall be transferred outside the European Economic Area by the Contractor or any of its agents or sub-processors without the prior written consent of the Employer, and the Contractor shall comply with Data Protection Law in respect of Personal Data transfers outside the European Economic Area which the Employer has consented to.

2 The Site, starting and completing the Works

- 2.1 The Employer must allow the Contractor to occupy and use the Site within 5 working days after this Contract comes into effect, or any other date stated in this Contract, or (in either case) a later date by which the Contractor has demonstrated to the Employer that the insurances required by this Contract are in effect. The Contractor is not entitled to exclusive use of the Site. The Contractor's right to occupy and use the Site is solely for the purpose of constructing the Works. Other limitations on the Contractor's right to occupy and use the Site may be included in this Contract.
- 2.2 The Employer may arrange for work to be done on the Site by the Employer's personnel or other contractors.
- 2.3 The Contractor must start constructing the Works on the Site within 5 working days after the Employer allows the Contractor to occupy and use the Site, or another date agreed between the parties, and must substantially complete the Works within the Time for Completion.
- 2.4 Within 5 working days after the Contractor notifies the Employer's Representative that the Works are substantially complete, the Employer's Representative will give the Contractor a certificate stating the date the Works were substantially complete, or notify the Contractor that the Employer's Representative does not consider the Works substantially complete, with reasons. The certificate does not relieve the Contractor of any responsibility or liability. The certificate may include a list of work that remains to be done.
- 2.5 After the Employer's Representative certifies the date that the Works are substantially complete, the Contractor must complete any outstanding work promptly after the Employer's Representative so instructs. In doing so (and generally in performing this Contract after substantial completion of the Works) the Contractor must cause as little disruption as possible to occupiers and users of the Works. If the Contractor fails to comply with the instruction promptly and in compliance with this clause, the Employer may do the outstanding work itself, or have it done by others, and the Contractor must pay or allow the Employer's cost of the work.
- 2.6 If the Contractor does not substantially complete the Works within the Time for Completion, the Contractor must pay or allow the Employer liquidated damages at the rate in the Schedule from the day after the last day of the Time for Completion until the day that the Works are substantially complete.
- 2.7 The Employer's Representative will extend the Time for Completion by an amount corresponding to any delay to the substantial completion of the Works caused by any of the following and not resulting from the Contractor's or Contractor's Personnel's acts or omissions (except as an unavoidable result of complying with this Contract) or the Contractor's breach of this Contract:
 - Compensation Events
 - loss of or damage to the Works
 - a weather event
 - strikes or lock outs not confined to the Contractor's Personnel
 - order or other act of a court or other public authorityfailure or delay of a person other than the Contractor or Contractor's Personnel to do what this Contract says they will do.

2.8 A **weather measurement** for a month means each of the following:

- the number of days with rainfall exceeding 10 millimetres
- the number of days with minimum air temperature less than 0 degrees Celsius and
- the number of days with maximum mean 10 minute wind speed exceeding 15 metres per second as recorded at the weather station named in the Schedule.

A **weather event** is when a weather measurement is recorded at the weather station named in the Schedule for a month during the Time for Completion that is shown to exceed the 90th percentile of past weather measurements for the corresponding month of the year at the same station, as determined by Met Éireann and published most recently before the day 10 days before the final date for submission of tenders for the Works.

If no weather station is named in the Schedule, the Met Éireann station nearest the Site is used. If the station named in the Schedule, or the nearest one, does not record the weather measurements, the station nearest to the Site that records the weather measurement is used.

A weather event also means any other event stated in the Schedule to be a weather event.

An extension of time for a weather event never exceeds the number of days in the relevant month by which the weather measurement exceeds the 90th percentile (as so determined).

2.9 The Contractor must ensure that goods and materials for the Works selected or designed by the Contractor (including Contractor's Personnel) are suitable for their intended purpose in the Works and shall provide the certification necessary to comply with the Building Control Regulations.

3 The Works

- 3.1 The Contractor is responsible for the safety and stability of the Works, and of all operations on the Site connected with the Works, including temporary works.
- 3.2 The Contractor must construct the Works according to good practice, and must only use goods and materials that are of good quality.
- 3.3 From when the Employer allows the Contractor access to the Site, the Contractor must
- as far as practicable, secure the Site and keep off the Site persons not entitled to be there
 - keep the Site in good order and free from unnecessary obstructions
 - as far as practicable, secure the safety of persons on the Site and protect them and users, owners and nearby areas from hazards and interference resulting from the Works and
 - as far as practicable, ensure that the Contractor, the Contractor's Personnel and the Works do not unnecessarily or improperly
 - cause a nuisance or inconvenience to the public or users, owners, occupiers of land, roads, or footpaths on or near the Site, or
 - interfere with the use of land, roads, or footpaths.
- 3.4 Until the Employer's Representative issues the Defects Certificate, if the Employer's Representative gives the Contractor a written instruction in relation to the Works, the Contractor must implement the instruction. This can include an instruction changing the Works, or an instruction imposing or changing restrictions on how the Works are to be constructed.
- 3.5 The Employer's Representative will give the Contractor instructions that are necessary for the Contractor to construct the Works if the Contractor asks for them in writing. Such an instruction must be given in reasonable time, taking into account when the Contractor asked for it and when the Contractor needs it to avoid delay to the Works.
- 3.6 The Contractor must set out the Works by reference to the points, lines, and levels in this Contract and in written instructions from the Employer's Representative. Before setting out the Works, the Contractor must make all reasonable efforts to verify the accuracy of these points, lines, and levels.

SHORT PUBLIC WORKS CONTRACT

- 3.7 Until the Employer's Representative issues the Defects Certificate, the Contractor must ensure that the Employer, the Employer's Representative, the Assigned Certifier, and persons authorised by them, are able to have access to the Site and other places where the Works are being constructed or goods or materials for the Works are being produced, stored, extracted, or prepared, and there to inspect, test, and observe the Works, goods, materials, and activities. The Contractor must give the Employer's Representative the information the Employer's Representative requires or requests to do this.
- 3.8 The Contractor must inform the Employer's Representative and the Assigned Certifier in good time before any part of the Works is covered or goods or materials for the Works that are to be inspected are packed or made difficult or impossible to inspect, and in each case give the Employer's Representative and the Assigned Certifier a proper opportunity to inspect them.
- 3.9 Any time until the Employer's Representative issues the Defects Certificate, the Employer's Representative may instruct the Contractor to uncover, dismantle, re-cover, or re-erect work; test, inspect, or provide facilities for testing and inspection; or any combination of these.
- 3.10 Any time until the Employer's Representative issues the Defects Certificate, the Employer's Representative may instruct the Contractor to remove from the Site and replace any Works or goods or materials for the Works that do not comply with this Contract or otherwise to put right (in a manner instructed by the Employer's Representative) any part of the Works that do not comply with this Contract. If the Contractor fails to comply with the instruction promptly, the Employer may do the work itself, or have it done by others, and the Contractor must pay or allow the Employer's cost of the work.
- 3.11 Until the Works are substantially complete, the Contractor must not remove from the Site any Works, goods or materials for the Works, or plant to be used for the Works, without the Employer's Representative's consent
- 3.12 The Employer's Representative may instruct the Contractor to suspend all or part of the Works. The Contractor must, during the suspension, protect, store, and secure the affected Works and maintain the insurances required by this Contract. The Contractor must resume the Works promptly after the Employer's Representative so instructs. If the suspension did not result from a breach of the Contractor's obligations and lasts for longer than 3 months, the Contractor may ask the Employer's Representative for permission to proceed; and if the Employer's Representative does not give permission within 20 working days of being asked
- if the suspension affected all the Works, the Employer will be considered to have terminated the Contractor's obligation to complete the Works and
 - if the suspension affected part of the Works, the Employer will be considered to have given an instruction to omit that part of the Works.
- 3.13 If the Contractor discovers fossils, coins, antiquities, monuments, or other items of value or of archaeological or geological interest or human remains on the Site, the Contractor must not disturb them, and must take all necessary steps to preserve them, and promptly notify the Employer's Representative and comply with the Employer's Representative's instructions. As between the parties, these items are the Employer's property.
- 3.14 The Contractor, and not the Employer, is responsible for the suitability and availability of access routes to and through the Site, and any required maintenance and upgrading of them, and charges for their use, except when this Contract states otherwise. The Contractor is also responsible for obtaining and providing all facilities, power, water, and other services it requires to construct the Works, other than those this Contract requires the Employer to provide.
- 3.15 In the time stated in the Schedule, the Employer's Representative will issue to the Contractor the Defects Certificate. But the Employer's Representative may defer issuing the Defects Certificate until the Contractor has completed outstanding work, including under clauses 3.9 or 3.10. Neither the Defects Certificate nor its deferral relieves the Contractor of any obligations.

4 The Price and payment

- 4.1 For completing the Works according to this Contract the Employer must pay the Contractor the Price, in instalments as follows:
- interim payments on account as Scheduled, less payments already made and any deductions permitted by this Contract
 - after the Employer's Representative certifies the date the Works were substantially complete, the percentage of the Price stated in the Schedule, less (a) payments already made, (b) the value of any remaining work, and (c) other deductions permitted by this Contract
 - after the Employer's Representative issues the Defects Certificate, the unpaid balance of the Price, less deductions permitted by this Contract.
- 4.2 When a payment is to be made, not later than 5 days after the date agreed between the parties to be the payment claim date the Contractor shall give the Employer's Representative a payment claim notice, in the form of a detailed statement of the amount to be paid. Within 14 days of receiving the payment claim notice, the Employer's Representative shall issue a response to the payment claim notice, to the Contractor, in the form of a certificate, setting out the amount the Employer's Representative considers the Contractor should be paid, with reasons for any difference between the amount in the certificate and the Contractor's statement. If the certificate states that an amount is due to the Contractor, the Contractor shall send an invoice to the Employer for that sum. The Employer shall pay the amount due on the invoice within the period stated in the Schedule.
- 4.3 The Contractor shall give a penultimate statement within 30 days after the Employer's Representative certifies the date the Works were substantially complete, and a final statement of all amounts due under this Contract within 30 days after the Employer's Representative issues the Defects Certificate. The final statement shall be the same as the penultimate statement, except for amounts due for occurrences after the date of the penultimate statement. Within 14 days of receiving a statement, the Employer's Representative will give the Contractor a certificate setting out the amount the Employer's Representative considers the Contractor should be paid, with reasons for any difference between the amount in the certificate and the Contractor's statement. If the certificate states that an amount is due to the Contractor, the Contractor shall send an invoice to the Employer for that sum. The Employer shall pay the amount due on the invoice within the period stated in the Schedule.
- 4.4 The Price will change only as expressly provided in this Contract. The Contractor's cost of performing this Contract is all at the Contractor's risk except to the extent that the Price is to be increased under this Contract.
- 4.5 In this Contract, **Compensation Event** means any of the following:
- the Employer's Representative gives the Contractor an instruction
 - that changes the Works or constraints in this Contract on how the Works are to be constructed
 - to search for defects or their cause under clause 3.9 and no defect is found, and the search was not required because of a failure by the Contractor to comply with this Contract
 - to suspend work
 - the Employer's Representative does not give an instruction when required under clause 3.5
 - other contractors working on the Site under clause 2.2 impede the Contractor and this was unforeseeable and not in accordance with this Contract
 - breach of this Contract by the Employer
 - the Employer instructs the Contractor to rectify loss or damage at the Employer's risk
 - the Contractor encounters on the Site unforeseeable ground conditions or unforeseeable man-made obstructions in the ground
 - owners of utility apparatus on the Site do not relocate or disconnect their apparatus as stated in this Contract, when the Contractor has complied with their procedures and the procedures in this Contract, and the failure is unforeseeable.

In the above definition, something is **unforeseeable** if an experienced Contractor tendering for

the Works could not have reasonably foreseen it, having inspected the Site and taking into account all the information provided by the Employer.

- 4.6 If a Compensation Event happens, the Employer's Representative will adjust the Price according to this clause. If the adjustment is an increase the Price can be increased only to the extent that all of the following apply:
- The Compensation Event is not a result of an act or omission of the Contractor or Contractor's Personnel, or the Contractor's breach of this Contract.
 - The Contractor makes all reasonable efforts to avoid and minimise the adverse effects of the Compensation Event.
 - The Contractor has complied with clause 4.8 in full.
 - This Contract does not provide otherwise.

The amount of the adjustment will be the amount of an accepted or agreed quotation under clause 4.7, if a quotation is agreed. If there is no agreed quotation, the Employer's Representative will assess the amount of any adjustment using the rates and prices in this Contract, or on the basis of those rates and prices, if there are any and they are suitable, and if not by assessing the effect of the change on the Contractor's cost of constructing the Works. The Contractor's right to an adjustment under this clause is subject to clause 4.8, but the Employer's Representative may act on its own initiative.

- 4.7 If the Employer's Representative so requests, the Contractor must give the Employer's Representative, within 10 working days of receiving the request, a quotation for any change to the Price and the Time for Completion as a result of a proposed instruction. If the Employer's Representative accepts the quotation, it may issue the instruction, and adjust the Price and the Time for Completion to match the accepted quotation. If the Employer's Representative does not accept the quotation, or it is not given, and agreement is not reached, the Employer's Representative may either
- issue the instruction and assess any adjustment to the Time for Completion and the Price under clauses 2.7 and 4.6 respectively or
 - if the instruction has not yet been given, decide not to proceed with it, unless it is required under clause 3.5.
- 4.8 If the Contractor considers that under this Contract there should be an adjustment of the Price, or that it has any other entitlement against the Employer under or in relation to this Contract, the Contractor must give the Employer's Representative notice of the claim within 10 working days of when the Contractor became, or should have become, aware of it, and full details of the circumstances and the amount claimed within a further 15 working days after giving the notice. If the Contractor does not give the notice and details according to and within the time required by this clause the Contractor is not entitled to an increase in the Price and the Employer is released from all liability to the Contractor in relation to the matter (unless the Contractor's claim is about an instruction for which the Contractor was requested to and gave a proposal under clause 4.7).
- 4.9 If the Employer or the Employer's Representative considers that under this Contract there should be an adjustment to the Price, it must, as soon as practicable, give notice and full details of the circumstance and the amount claimed to the other and to the Contractor. The Contractor may, within 10 working days after receiving the notice, give a response to the Employer's Representative and the Employer's Representative may adjust the Price in accordance with this Contract.
- 4.10 If a payment is not made within the time allowed in this Contract, it carries interest at the rate in the European Communities (Late Payment in Commercial Transactions) Regulations 2012.
- 4.11 The Contractor's completed form of tender states whether, and to what extent, the Price includes VAT
- 4.12 To the extent that the Price excludes VAT, the Employer must pay the Contractor (or the Revenue Commissioners when required by Law or their practice) any VAT arising on the supply under this Contract in addition to the Price.

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- 4.13 To the extent that the Price includes VAT,
- (1) adjustments to the Price shall be on a net-of-VAT basis, and the appropriate sum for VAT shall be added or subtracted and
 - (2) any VAT included in the Price that the Employer is required to pay the Revenue Commissioners (by Law or their practice) shall be deducted from the Price.
- 4.14 So therefore, if the Price includes VAT chargeable at the standard rate only, then the Employer shall pay the Contractor (or the Revenue Commissioners when required by Law or their practice).
- The Price, including the VAT chargeable at the standard rate that is included in the Price and also
 - Any VAT arising on the supply under this Contract that is chargeable at another rate.
- In this Contract 'standard rate' means the VAT rate specified in section 46(1)(a) of the Value-Added Tax Consolidation Act, 2010.
- 4.15 Amounts in this Contract other than the Price exclude VAT, unless otherwise stated
- 4.16 For each payment the Contractor must give the Employer an invoice complying with section 66 of the Value-Added Tax Consolidation Act, 2010
- 4.17 The Price will be adjusted by the amount of any increase or decrease in the Contractor's cost of performing this Contract as a result of a change in law after the date of this Contract that changes customs or excise duties, requirements for licence to import or export any commodity or PRSI, except for when this Contract says otherwise.
- 4.18 The Employer may withhold and deduct any amount on account of tax required by law or the practice of the Revenue Commissioners
- 4.19 The Employer may deduct from amounts due to the Contractor any amount that the Employer considers is due, or likely to become due, to the Employer from the Contractor under this Contract or another contract.

5 Representation and communications

- 5.1 If the Employer's Representative is not named in the Schedule, the Employer must, promptly after the date of this Contract, appoint the Employer's Representative and notify the Contractor. The Employer must notify the Contractor of any limitations agreed with the Employer's Representative on how the Employer's Representative's functions under this Contract may be exercised. The Employer may change the Employer's Representative, and must notify the Contractor.
- 5.2 The Contractor must appoint a representative, with authority to act on the Contractor's behalf in all matters concerning the Works. The Contractor must also appoint a competent supervisor of all the Contractor's activities on the Site, who may be the same person as the Contractor's representative. The Contractor is considered to be aware of matters (including communications and instructions) of which its representative or supervisor is aware. The Employer's Representative will send the Contractor's representative copies of any instructions given to the Contractor's supervisor. If the Contractor's representative or supervisor dies, or becomes no longer able to perform her duties, or is no longer available to the Contractor, the Contractor must appoint a replacement. The Contractor must replace its representative or supervisor if the Employer's Representative so requires because of the representative's or supervisor's misconduct, negligence, or incompetence.
- 5.3 All communications provided for in this Contract must be in English, unless this Contract requires Irish, and in writing.

6 Contractor's Personnel

- 6.1 The Contractor must ensure that Contractor's Personnel are suitably qualified, trained, and experienced and are competent to carry out their tasks. The Contractor must ensure that Contractor's Personnel carry out their tasks in compliance with the Contractor's obligations under this Contract. The Contractor is liable for acts and omissions of Contractor's Personnel as if they were acts or omissions of the Contractor.
- 6.2 The Contractor must remove from the Works and the Site any Contractor's Personnel that the Employer's Representative instructs be removed on the basis of their negligence or incompetence or that their presence on the Site is not conducive to safety, health, or good order.
- 6.3 The Contractor may not subcontract the whole of the Works to one or more subcontractors. The Contractor may not subcontract part of the Works without the Employer's Representative's consent, unless the subcontracting is already provided for in this Contract.

7 Pay and conditions of employment of workers

- 7.1 The Contractor shall prominently exhibit copies of this clause 7 for the information of persons at the Site. In this clause **worker** means a person employed by, or otherwise working for, the Contractor or the Contractor's Personnel on or adjacent to the Site.
- 7.2 The Contractor shall ensure that the rates of pay and the conditions of employment, including pension contributions, comply with all applicable law and that those rates and conditions are at least as favourable as those for the relevant category of worker in any sectoral employment orders, employment regulation orders or registered employment agreements implemented in accordance with the Industrial Relations Acts 1946 to 2015 (including any such agreements registered prior to the Industrial Relations (Amendment) Act 2015, which have not otherwise been superseded). This applies to workers who are posted workers (within the meaning of Directive 96/71/EC of the European Parliament and the Council of the 16 December 1996 as amended by Directive 2014/67/EU concerning the posting of workers in the framework provision of services), except that the Contractor's obligation to make pension contributions in accordance with an applicable sectoral employment order, registered employment agreement or employment regulation order under the Industrial Relations Act 1946-2015 does not apply to posted workers who already contribute, or whose contributions are paid, to a supplementary pension scheme established in another member state of the European Union.
- 7.3 The Contractor must, and must ensure that the employers of all workers, do all of the following:
 - pay all wages and other money due to each worker
 - ensure that workers' wages are paid in accordance with the Payment of Wages Act 1991 and are never more than 1 month in arrears or unpaid
 - pay all pension contributions and other amounts due to be paid on behalf of each worker
 - make all deductions from payments to workers required by law, and pay them on as required by law
 - keep proper records (including time sheets, wage books and copies of pay slips) showing the wages and other sums paid to and the time worked by each worker, deductions from each worker's pay and their disposition, and pension and other contributions made in respect of each worker, and produce these records for inspection and copying by persons authorised by the Employer, whenever required by the Employer
 - produce other records relating to the rates of pay, deductions from pay, conditions of employment, rest periods and annual leave of workers for inspection and copying by persons authorised by the Employer, whenever required by the Employer
 - respect the right under law of workers to be members of trade unions
 - observe, in relation to the employment of workers on the Site, the Safety, Health and Welfare at Work Act 2005 to 2014, and all employment law including the Employment Equality Act 1998 to 2015, the Industrial Relations Acts 1946 to 2015, the National Minimum Wage Act 2000 and 2015 and regulations, codes of practice, legally binding determinations of the Labour Court and sectoral employment orders, employment regulation orders or registered employment agreements determined under those laws.

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- 7.4 If the Employer so requests, the Contractor must, within 5 working days after the request, give to the Employer a statement showing the amount of wages and other payments due at the date of the request to and in respect of each worker, or, in respect of workers, not employed by or otherwise working for the Contractor, ensure that their employer or the person for whom they are working does the same.
- 7.5 The Employer may seek information under the above provisions of this clause only for the purpose of ensuring the obligations described in this clause to workers have been properly discharged. All documents and records received under the above provisions of this clause will be returned to the person providing it or destroyed if the Employer is satisfied that the person providing the information has complied with legal obligations to workers.
- 7.6 If the Contractor has not complied with this clause, the Employer may (without limiting its other rights or remedies) estimate the amount that should have been paid to workers and contributions that should have been made on their behalf, and the Employer may withhold the estimated amount from any payment due to the Contractor, until the Employer is satisfied that the required amounts have been paid. If it has still not been paid by the time the Defects Certificate is issued, the estimated amount is deducted from the Price.
- 7.7 The Contractor must give the Employer's Representative with each statement under clause 4.2 and 4.3 a certificate that, for the work to which the statement relates, the Contractor has complied in full with this clause. If there is a form for the certificate attached to these Conditions, the certificate must be in that form. Payment due for the work covered by the statement will only be due if the certificate is given. If the certificate has still not been given by the time the Defects Certificate is issued, the portion (of the value of work that the Contractor has not given a certificate for) that the Employer determines is the labour portion is deducted from the Price.
- 7.8 If the Contractor does not comply with this clause, it must pay to the Employer any costs the Employer incurs in investigating and dealing with the non-compliance.
- 7.9 The Contractor shall ensure that in the event of an official of a trade union representing workers who are affected by a sectoral employment order, employment regulation order or which is a party to a registered employment agreement affecting workers having concerns in relation to the Contractor's or Contractor's Personnel's compliance with the order or agreement, that official will have access to a designated member of the Contractor's management who shall engage constructively to resolve all matters on this point.

8 Loss of and damage to the Works

- 8.1 The Employer bears the risk of loss of and damage to the Works resulting from
- war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds
 - contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
 - terrorism
 - use or occupation of the Works by the Employer except (a) as provided for in this Contract or (b) if the loss or damage is caused by the negligence of the Contractor or Contractor's Personnel, or the Contractor's breach of this Contract.
 - design of the Works by the Employer or by others for whom the Employer is responsible.

The Employer also bears the risk of loss of and damage to the Works after the Employer's Representative issues the certificate of the date they were substantially complete, unless the loss or damage is due to

- the Works not complying with this Contract
- an occurrence before substantial completion or
- activities of the Contractor or Contractor's Personnel.

The Contractor bears the risk of loss of and damage to the Works that does not result from an Employer risk listed above.

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- 8.2 The Contractor must promptly put right loss of or damage to the Works and goods or materials for the Works that is at the Contractor's risk. The Contractor is not entitled to payment for this except any insurance proceeds. If the insurance is insufficient, the Contractor must put the loss and damage right at its own expense.
- 8.3 If the Works are lost or damaged before the Defects Certificate is issued, and the loss or damage is at the Employer's risk, the Contractor must put it right if the Employer so instructs in writing.
- 8.4 Only if the Works involve alteration or extension of existing facilities owned by the Employer, the Employer bears the risk of loss of or damage to those facilities and their contents owned by the Employer caused by fire, storm, tempest, flood, bursting or overflowing of water tanks, apparatus or pipes, explosion, impact, aircraft, riot, civil commotion, or malicious damage.

9 Indemnity for claims and damage

- 9.1 The Contractor must indemnify the Employer against
- claims, liability, proceedings, and
 - loss of and damage to the Employer's property (except for loss or damage at the Employer's risk under clause 8.1))
- that happen in the course or as a result of the Works.
- The Contractor's indemnity in this clause does not apply to the Employer's liability under this Contract to the Contractor, nor to the extent that the matter is covered by the Employer's indemnity in clause 9.2.
- 9.2 The Employer must indemnify the Contractor against
- liability for death, injury or illness of any person or loss of damage to any physical property that the Contractor incurs in the course of performing this Contract to the extent caused by the negligence of the Employer and
- liability for property damage that is the unavoidable result of constructing the Works in accordance with this Contract.

10 Insurance

- 10.1 From the date the Employer allows the Contractor to occupy and use the Site, the Contractor must insure the Works and goods and materials for the Works against loss and damage. The Employer must be named as an insured. The insurance must be for the full reinstatement value of the property insured, including cost of demolition, removal of debris, delivery, Employer's professional fees, profit, and inflation during the construction and reinstatement periods. The sum insured for professional fees must be at least 15% of the Price. The Contractor must maintain this insurance until the Employer's Representative certifies the date that the Works were substantially complete, and must extend the insurance to cover loss and damage at the Contractor's risk until the Defects Certificate is issued.
- 10.2 The proceeds of the insurance of the Works and goods and materials for the Works (except the portion for the Employer's professional fees, which must be paid directly to the Employer) must be paid into a bank account in the joint names of the Employer and the Contractor, and paid out to the Contractor in instalments on the basis of the value of the work done and goods and materials delivered to the Site for the reinstatement, following generally clauses 4.1 and 4.2, and also paid out to the Employer for its costs. Any balance in the account after the work is done will be paid to the Employer.
- 10.3 From the date the Employer allows the Contractor to occupy and use the Site, the Contractor must have public liability and employers liability insurance, with indemnity limits of at least those in the Schedule. The Contractor's public liability policy must insure the Employer and Contractor as insured, with a cross-liability clause. The Contractor's employer's liability policy must indemnify the Employer against the liability for which it indemnifies the Contractor, including costs. The Contractor must maintain these insurances until the Defects Certificate is issued, and after that must have these insurances in place any time the Contractor or Contractor's Personnel return to the Site in connection with the Works.
- 10.4 The Contractor must place the insurances required by this Contract with reputable insurers approved by the Employer. The level of excess must be no higher than stated in the Schedule.
- 10.5 The insurance on which the Employer is to be insured must provide that

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- the term “insured” applies to each insured person as if a separate policy had been issued to each (without increasing the overall limit of indemnity) and non-compliance by the Contractor or any other insured person does not affect the Employer’s rights and
 - the insurer waives all rights of subrogation and other action against each insured person.
- 10.6 The Contractor must comply with the terms of the insurance policies required under this Contract.
- 10.7 Within 10 working days of being requested to do so, the Contractor must give the Employer evidence that the insurances required by this Contract are in effect, including copies of policies and receipts for premiums.
- 10.8 The Contractor must not make any material reduction to the insurance policies required by this Contract unless approved in advance by the Employer. The Contractor must promptly notify the Employer of any cancellation, renewal, non-renewal, or material reduction by the insurer of the terms of any insurance policy required by this Contract.
- 10.9 If the Contractor fails to maintain any of the insurances in the terms required by this Contract, the Employer may (without affecting its other rights) take out the insurance and pay the premiums, and the Contractor must pay or allow the amount of the premiums to the Employer.
- 10.10 The Contractor bears the risks allocated to it under this Contract regardless of whether the risk is, or is required to be, insured. This includes losses and liability falling below insurance excess levels and exceeding indemnity limits.

11 Property

- 11.1 The Contractor must ensure that goods and materials for the Works become the property of the Employer on the earliest of the following
- when they are delivered to the Site, if owned by the Contractor
 - when they are incorporated in the Works
 - when the Employer makes any payment for them.
- 11.2 The Contractor must ensure that the Employer is entitled to use, copy, modify, adapt, and translate for any purpose the documents that the Contractor is to provide to the Employer under this Contract. The Contractor has no liability for the Employer’s use of these documents for any purposes other than those for which they were provided.
- 11.3 The Contractor must indemnify the Employer against claims, liability, and proceedings resulting from any of the following infringing the property (including intellectual property) rights of any person:
- anything that the Contractor does for the construction of the Works, unless covered by the Employer’s indemnity in clause 11.4
 - use by the Employer of the Works and goods, materials, and documents provided by the Contractor for the Works for the purposes for which they were provided.
- 11.4 The Employer must indemnify the Contractor against claims, liability, and proceedings resulting from any of the following infringing the property (including intellectual property) rights of any person:
- use by the Contractor, in accordance with this Contract, of documents or goods provided by the Employer for the purposes for which they were provided
 - use or occupation of the Site by the Works that is the unavoidable result of constructing the Works in accordance with this Contract.

12 Termination

- 12.1 The Employer may terminate the Contractor’s obligation to complete the Works on giving written notice to the Contractor. If this happens, the Contractor’s obligation to complete the Works will terminate 10 working days after the notice was given, or a different date stated in the notice, and
- the Contractor must leave the Site in an orderly manner, but must not remove any goods or materials for the Works, or property of the Contractor or Contractor’s Personnel used or to be used for the Works, unless the Employer or Employer’s Representative so instructs
 - the Contractor must remove from the Site any property of the Contractor or Contractor’s

Personnel that the Employer or Employer's Representative instructs the Contractor to remove

- the Contractor must, as soon as practicable, give the Employer a statement of the amount (the **termination value**) due to the Contractor under this Contract and unpaid, including in it the reasonable rental value of any property of the Contractor and Contractor's Personnel that the Employer or Employer's Representative has required to be left on the Site to complete the Works, including details
- the Employer's Representative will, within 14 days after receiving the Contractor's statement of the termination value, issue a certificate stating what the Employer's Representative considers to be the termination value, with reasons
- the Employer may employ others and do anything necessary to complete the Works.

12.2 This clause applies if the Employer has terminated the Contractor's obligation to complete the Works because

- of a substantial breach by the Contractor of this Contract or
- any of the following (or similar event anywhere) occurring in relation to the Contractor —
 - a petition being presented to wind it up and not being dismissed within 14 days after presentation
 - a meeting of its creditors or members being held for the purpose of considering a resolution to wind it up
 - entering or proposing to enter an arrangement with or for the benefit of its creditors
 - a petition being presented to appoint an examiner
 - a liquidator, examiner, supervisor, receiver, administrative receiver, trustee, encumbrancer, or similar being appointed for it or any of its assets
 - ceasing or threatening to cease its business
 - becoming insolvent or unable to pay its debts as they fall due
 - being an individual, becoming bankrupt or dying or becoming incapable of performing this Contract.

Payment of any money due by the Employer to the Contractor will be postponed, and the Employer is not required to make any further payment to the Contractor until required under this clause.

After the Works have been completed the Employer's Representative will give the Contractor a certificate of the total of the following (the **termination amount**):

- the Employer's additional cost of completing the Works compared with the cost the Employer would have incurred if the Works had been completed by the Contractor under this Contract
- other costs and losses incurred by the Employer as a result of the termination and its causes and
- amounts due to the Employer from the Contractor.

If the Employer does not begin to put in place arrangements to complete the Works within 6 months after the termination, the Employer's Representative will give the above certificate to the Contractor within 14 days after the 6 month period (based, if necessary, on estimates).

If the certified termination amount is less than the certified termination value, the Contractor may give the Employer an invoice for the difference after receiving the Employer's Representative's certificate, and the Employer must pay the amount due within 30 days after receiving the invoice. If the certified termination amount is more than the certified termination value, the Contractor must pay the Employer the difference within 10 working days of receiving the Employer's Representative's certificate.

12.3 This clause applies if the Employer terminates the Contractor's obligation to complete the Works, only if clause 12.2 does not apply.

The Contractor may give the Employer an invoice for the total of the termination value certified by the Employer's Representative and the Contractor's reasonable direct cost of removal from the Site as a result of the termination. If the Employer appoints another contractor to complete the Works within 12 months after the termination, the Contractor's payment under this clause will also include the percentage of the unpaid portion of the Price stated in the Schedule. The

Employer must pay the amount due within 30 days of receiving the Contractor's invoice.

- 12.4 The Employer has no other liability in relation to termination, including no liability for lost profit or contribution to overhead.

13 Ethics in Public Office

The Contractor warrants to the Employer that neither the Contractor nor any person on the Contractor's behalf has committed any offence under the Prevention of Corruption Acts 1889 to 2010 or the Ethics in Public Office Acts 1995 to 2001 in connection with this Contract or the Works, and nor will they commit any such offence.

14 Project Supervisor for the Construction Stage

Subject to the Schedule, if the Employer appoints the Contractor as project supervisor for the construction stage of the Works according to the Safety, Health and Welfare at Work (Construction) Regulations 2013 and the Contractor must accept the appointment in writing, in the terms attached to these Conditions or other terms in this Contract, within 5 days after this Contract comes into effect, and before starting work on the Site. If this Contract provides that an individual or body corporate named by the Contractor or in this Contract is to be appointed as project supervisor for the construction stage, the Contractor must ensure that the person accepts the appointment in terms included in this Contract (if any, and if not, in terms required by the Employer) within 5 working days after this Contract comes into effect. If the Employer terminates the employment of the Contractor or person so named as project supervisor for the construction stage for failure to comply with the obligations of project supervisor, the Contractor must pay the Employer all the Employer's costs resulting from the termination.

15 Law, jurisdiction and disputes

15.1 Irish law governs this Contract and its interpretation.

15.2 The dispute resolution procedure is as follows:

- (1) If a dispute arises under this Contract, either party may, by notice to the other, refer the dispute for conciliation. Within 10 working days of the referral of a dispute to conciliation, the parties must jointly appoint a conciliator, and if they fail to do so, or if a person appointed refuses to act or becomes unable to act, the conciliator will be appointed by the president or vice-president of the body stated in the Schedule. If there is a fee for making the appointment, the parties share it equally. If one party pays the entire fee, it is entitled to reimbursement of the other party's share from the other party on demand.
- (2) Each party must, within the period set by the conciliator, send to the conciliator and the other party brief details of the dispute stating its contentions about the facts and the parties' rights and obligations concerning the dispute. The conciliator may, for this purpose, suggest further actions or investigations that may be of assistance. The parties must promptly make available to the conciliator all information, documents, access to the Site, and appropriate facilities that the conciliator requires to resolve the dispute.
- (3) The conciliator will consult with the parties in an attempt to resolve the dispute by agreement. The conciliator may meet the parties separately from each other or together and consider documents from one party not sent or shown to the other, conduct investigations in the absence of the parties, make use of specialist knowledge, establish the procedures to be followed in the conciliation and make recommendations to the parties.
- (4) The conciliator will not be an arbitrator and the Arbitration Act 2010 and the law of arbitration will not apply to the conciliation.
- (5) If the dispute is not resolved by agreement within 42 days after the conciliator was appointed, or a longer period proposed by the conciliator and agreed by the parties, the conciliation will be taken to have ended.
- (6) The conciliation will be confidential, and the parties must respect its confidentiality. All documents provided by a party in connection with a conciliation must be returned when the conciliation ends.

SHORT PUBLIC WORKS CONTRACT

- 15.3 The parties have recourse to adjudication in accordance with the Construction Contracts Act 2013

Where an adjudicator reaches a decision on a dispute referred under the Construction Contracts Act 2013, that same dispute may not be referred to conciliation under the Contract.

If a dispute between the Parties is referred to adjudication, any conciliation relating to that dispute immediately adjourns. In the event that no decision is reached by the adjudicator, the parties may continue to resolve the dispute under the conciliation. In the event that a decision is reached by the adjudicator, the conciliation for that dispute shall be terminated.

- 15.4 The parties submit to the jurisdiction of the Irish courts.

End of Conditions

FORM OF COLLATERAL WARRANTY BY CONTRACTOR TO CIE

THIS DEED is made on the day of 2020

BETWEEN:

- 1 [.....] (registered company number [.....] whose registered office is at [.....] (the “**Contractor**”); and
- 2 **CÓRAS IOMPAIR ÉIREANN** whose principal office is at Heuston Station, Dublin 8, Ireland (the “**Beneficiary**”).

BACKGROUND:

- A Iarnród Éireann-Irish Rail (the “**Employer**”) is about to enter into a contract (the “**Contract**”) by which the Contractor will undertake Div 17 Rural/Urban Fencing, Ref 7109-24 (the “**Works**”) on behalf of the Employer.
- B Terms and expressions defined in that Contract have the same meaning in this Deed as is given to them in the Contract.
- C The Contractor has agreed to provide this Collateral Warranty to the Beneficiary.

NOW IT IS HEREBY AGREED as follows, in consideration of the payment of €1 by the Beneficiary to the Contactor (receipt and adequacy of which the Contractor acknowledges):

- 1 Contractor’s Undertaking to the Beneficiary**
 - 1.1 The Contractor warrants and undertakes to the Beneficiary that it has not broken and will not break any express or implied term of the Contract.
 - 1.2 The Contractor covenants with the Beneficiary that, in carrying out the Contract, that the Works, when completed, will be fully in accordance with the provisions of the Contract, and in particular, Clause 3 thereof.
- 2 Insurance**
 - 2.1 When it reasonably requested to do so by the Beneficiary, the Contractor will produce for inspection satisfactory documentary evidence that its insurances pursuant to the Contract are being maintained.
 - 2.2 The Contractor will immediately notify the Beneficiary in writing of any cancellation, non-renewal or material reduction in any of its insurances.

3 Assignment

The benefit of this Deed is assignable by the Beneficiary.

4 Indemnity

The Contractor shall indemnify the Beneficiary and the Beneficiary's employees, directors, and managers against:

- (a) claims, liability, proceedings, and
- (b) loss of or damage to the Beneficiary's property

arising from or in the course of the Contractor's performance or non-performance of the Contract.

The Contractor's indemnity does not apply to the extent that the liability is caused by the negligence of the Beneficiary or is property damage that is the unavoidable result of executing the Works in accordance with the Works Requirements.

5 Notices

Any notice to be given under this Deed must be in writing and will be considered given if delivered by hand or sent by pre-paid registered post to the address to the relevant party at the top of this Deed, or at any other address the relevant party may specify by written notice to the other parties. A notice will be taken to have been received on the day of delivery if delivered by hand, or 48 hours later if sent by pre-paid registered post.

6 Common Law Rights

Nothing in this Deed limits the Beneficiary's rights at law.

7 Law

This Deed is governed by the construed according to Irish law. The parties submit to the exclusive jurisdiction of the Irish courts in relation to all matters concerning it.

8 Procedure

If there is a conflict between this Deed and the Contract, this Deed takes precedence in relation to the subject matter of this Deed.

9 Joint and Several Liability

The obligations in this Deed of the persons comprising the Contractor are joint and several.

**GIVEN UNDER THE COMMON SEAL¹ OF
THE CONTRACTOR AND EXECUTED AND DELIVERED AS A DEED:**

Director

{ SEAL }

Director/Secretary

SIGNED on behalf of the BENEFICIARY

By _____

In the presence of

[name]

¹ If the Contractor is a joint venture or consortium, execution must be by each member of the joint venture/consortium and additional execution blocks inserted, in the same form as given above, inserting name of Joint Venture/Consortium Member



Record Edited/Identify Deletions
Personal Information relating to Others
Personal Information relating to Others
Personal Information relating to Others
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Personal Information relating to Others
Personal Information relating to Others
Personal Information relating to Others
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Personal Information
relating to Others
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7109-24 Division 17 Rural/Urban Fencing

Instructions to Tenderers
(using the Negotiated Procedure for WORKS CONTRACTORS)

Issue Date
October 2020

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Preface

The Employer is making these documents available to Candidates for the contract identified in the Particulars, for tendering purposes only. These documents must not be used for any other purpose.

The Employer makes no representation, warranty, or undertaking in or in connection with these documents. The Employer has not authorised anyone to make any representation in connection with these documents on its behalf, and Candidates should not rely on any representation purportedly made on the Employer's behalf in connection with them. Neither the Employer nor its officers, employees, or advisers will have any liability in connection with these documents. Candidates must make their own assessment of the adequacy, accuracy, and completeness of these documents.

The Employer reserves the right not to proceed with the procurement process or any part of it and may terminate the process or any part of it at any time, with or without procuring the Works in another way. If this happens, neither the Employer nor its officers, employees, or advisers will be liable to any Candidate or other person. The Employer also reserves the right to change any part of these documents, including the procedures and time limits described in them. The Employer does not bind itself to accept any outcome of the process described in these documents and is not obliged to enter into a contract for the Works with anyone.

Neither the Employer nor its officers, employees, or advisers have any responsibility for Candidates' costs or losses in connection with this competition. There will be no contract between any Candidate and the Employer concerning the subject of these documents (except for the Candidate's irrevocable offer to be bound by its Tender for the period stated) unless and until the Contract has been entered by issue of a Letter of Acceptance or Tender Acceptance. These Instructions to Tenderers will not be part of any Contract.

These documents are being made available to the Candidates on the terms stated in these Instructions to Tenderers. They are not being distributed to the public, and have not been filed, registered, or approved in any jurisdiction. Possession or use of these documents contrary to any law is prohibited. Candidates must inform themselves of and observe all laws concerning the possession and use of these documents.

Candidates must treat these documents, their Tenders, and their participation in this competition as confidential. Candidates must not disclose any information about this competition to anyone other than as required for tendering purposes, or as required by law.

The Employer is entitled to disclose information about this competition, including the identity of the Candidates, to any person. If a Candidate considers that information in its Tender is commercially sensitive or confidential, this should be clearly stated and clear and substantive reasons should be given. The Employer will have regard to such a statement in considering a request for access to the information under the Freedom of Information Acts 2014, but is not bound by the Candidate's view.

If a Candidate, or its personnel involved in this competition, or its management, or its proposed consultants or subcontractors, have or have had any other interest in or involvement in relation to the Works (including any involvement with the Employer or any involvement with another Candidate's Tender), the Candidate must disclose this to the Employer as soon as it becomes apparent to the Candidate. The Employer will decide on the appropriate course of action.

It will be a condition of the award of the Contract that the Candidate must comply with the terms of Department of Finance Circular 43/2006¹: Tax Clearance Procedures: Public Sector Contracts, or any replacement. (See section 10.3.). Candidates may obtain information regarding their obligations concerning

- taxation from the Revenue Commissioners (www.revenue.ie)
- environmental protection from the Environmental Protection Agency (www.epa.ie)

¹ As a result of the introduction of the new electronic Relevant Contracts tax (e-RCT) system by the Revenue Commissioners in January 2012 the C2 certificate is no longer in use by subcontractors. This change will require to be reflected in the Department of Finance procedures for tax clearance in relation to public sector contracts and grants. Accordingly Circular 43/2006 is being revised and a replacement will issue shortly. In the interim, more details are available at <http://www.revenue.ie/en/tax/rct/subcontractor.html> Note that the changes relate to use of the C2 only.

- employment protection and working conditions from the National Employment Rights Authority (www.employmentrights.ie).

1. Introduction

1.1. This procedure

These documents are being sent to all participants on 7109 - Framework Agreement for Railway Fencing & Associated Works.

These documents set out the award criteria and the award process which will be followed by the Employer in making the assessment of which tender is either the lowest price or the most economically advantageous. The documents also set out the information which must be supplied by Candidates. Tenders must be submitted in accordance with these Instructions. Any tenders not complying with these Instructions may be rejected by the Contracting Authority, whose decision in the matter shall be final.

1.2. These documents

These documents are being sent to all the Candidates.

Those documents set out under Section 4.2 'Tender Documents' of these Instructions to Tenderers.

1.3. The Contract

If the Employer enters a Contract for the Works, it will do so by issuing the Tender Acceptance at the back of the Form of Tender fully completed. The Contract, if formed, will consist of:

- the Tender Acceptance issued by the Employer (Volume B) and
- any written post-tender clarifications (Volume B)
- the Conditions to the Short Public Works Contract (PW-CF6) (Volume D)
- the documents describing the Works² (Volume A)
- the completed Form of Tender and Schedule (Volume B)
- the completed pricing document (Volume C) [where required]

None of the following will form part of any Contract:

- the invitation letter and these Instructions
 - any Bill of Quantities
 - the information referred to in Appendix 3 to these Instructions
 - any other information issued to Tenderers not stated to amend the Contract documents
 - additional information to be submitted with Tenders, as specified in Appendix 2 to these Instructions
 - any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications.
-

² These documents may include (but are not limited to) any of the following:

drawings, specifications, schedules, reports, information on the site location, any constraints such as existing services or working hours, statutory consents and conditions attached thereto.

2. Communications

- 2.1. Contact** All communications with the Employer concerning this competition must be in writing (which includes email), and with the Employer's contact person identified in the Particulars (as may be amended by supplemental information - see Section 2.2 below).
-
- 2.2. Supplemental information** The Employer may issue supplemental information to all Candidates. Supplemental information may amend any of the information in these documents, including by deleting and adding to it, and by extending time limits. Supplemental information will only become part of the Contract if it is stated to amend the Contract documents.
- The Employer will not normally issue supplemental information later than the date stated in the Particulars but is entitled to do so at any time.
-
- 2.3. Queries** Queries may be raised in writing by email using the Employer's contact details for queries stated in the Particulars. Queries must be raised as soon as possible and should be raised in any event no later than the date stated in the Particulars. The Employer has no obligation to respond to queries although the Employer may at its discretion respond to queries raised after that date. If the Employer responds to a query, it will issue the response on the e-tenders website, unless the query has been clearly designated as confidential. If the Candidate has designated the query as confidential, and the Employer decides that the response should be sent to all Tenderers, the Employer will so notify the Candidate asking the query, who will have the option of withdrawing the query or having any response sent to all Candidates. The Employer may exercise its rights under section 2.2 of these Instructions and issue any information it considers appropriate to all Tenderers following withdrawal of the query.
- Responses to queries will not be part of the Contract, unless they state that they will be incorporated into the Contract documents.
- If a person intending to submit a Tender becomes aware of any ambiguity, discrepancy, error, or omission in or between these documents, they must immediately notify the Employer, even after the time for submitting queries has expired.
-
- 2.4. Pre-qualification** A Candidate wishing to change any of the information in its pre-qualification submission for this competition must do so by written request to the Employer. The Employer may decide, at its discretion, whether to accept or reject the change.
-
- 2.5. Other** As indicated in the particulars e.g. special arrangements for site visits or investigation.
-

3. Tenderers

3.1. Name

Each Tenderer Candidate must sign the Form of Tender using the Tenderer's full correct legal name. This must be the name in which the Candidate pre-qualified, and was invited to tender. Those signing shall be authorised to sign on behalf of the Tenderer and this signature must be witnessed.

3.2. Mandatory Exclusion

A Tenderer shall be excluded if, to the Employer's knowledge at the time of the award decision, it has been convicted of an offence involving:

- participation in a proscribed criminal organisation or
 - corruption or
 - fraud or
 - money laundering.
-

3.3. Discretionary Exclusion

Although invited to tender, a Candidate may be excluded if, at the time of the award decision, it

- participation in a proscribed criminal organisation or
 - is subject to a bankruptcy or insolvency procedure or process of a kind specified in Regulation 53, paragraph (5) of the European Communities (Award of Public Authorities' Contracts) Regulations 2006 or
 - has been found guilty of professional misconduct by a competent authority that is authorised by law to hear and determine allegations of professional misconduct against persons that include the Candidate or
 - has committed grave professional misconduct provable by means that the Employer can demonstrate or
 - has not fulfilled an obligation to pay a social security contribution as required by a law of Ireland or the country or territory where the Candidate ordinarily resides or carries on business or
 - has not fulfilled an obligation to pay a tax or levy imposed by or under a law of Ireland or the country or territory where the Candidate ordinarily resides or carries on business or
 - has provided a statement or information to the Employer or another contracting authority knowing it to be false or misleading, or has failed to provide to the Employer or another such authority a statement or information that is reasonably required by the Employer or other authority for the purpose of awarding the public contract concerned.
-

4. Requirements for Tenders

4.1. Delivery

Tenders must be received at the place stated in the Particulars, at or before the latest time stated in the Particulars (or a later date and time advised by the Employer to all Candidates) in the manner described in the Particulars. Time is taken as standard time according to the Standard Time Act 1968 as amended by the Standard Time (Amendment) Act 1971 and any subsequent amendment or re-enactment thereof.

The completed tender documents should be sent in the manner described in the Particulars i.e. by registered post or delivered by hand [Faxed or emailed submissions will not be accepted] to the address stated in the Particulars. It is the responsibility of Candidates to obtain a receipt, indicating time when submission was received, from the Contracting Authority.

Tenders received late will not be considered.

All Tenders received on time will be opened promptly after receipt.

4.2. Tender Documents

Attached to these Instructions are the documents listed in the Particulars under *Tender Documents*. Documents listed in the Particulars as *Documents to be included in the Contract* or any amendment to them which have been issued will form part of the Contract. These will include:

- the Short Public Works Contract as identified in Volume D
- the documents describing the Works³ (Volume A)
- the completed Form of Tender and Schedule (Volume B)
- the completed pricing document⁴ (Volume C)
- the Tender Acceptance issued by the Employer and any post-tender clarifications listed in the letter or attached to the tender acceptance

All other documents, including *Documents for information purposes only* issued to Candidates will not form part of the Contract such as:

- the invitation letter and these Instructions
 - any Bill of Quantities
 - any other information issued to Applicants not stated to amend the Contract documents.
 - any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications..
-

4.3. Number of Tenders per Tender

Only one Tender per Tenderer is permitted with the Short Public Works Contract.

4.4. Copies

Tenders must include the number and type of paper and electronic copies stated in the Particulars and must be packed and marked as stated in the Particulars.

4.5. Format

Tenders will consist of:

- the completed Form of Tender and attached completed Schedule (Volume B) executed as indicated in the Particulars
- additional information specified in Appendix 2 to these Instructions

The original of Volume B must be returned and completed in ink. If Volumes B has been amended by supplemental information, Candidates must use the most recently issued versions. If replacement pages are issued as supplemental information, Candidates must insert the most recently issued pages in place of the replaced pages.

No amendments or alterations to the Form of Tender or attached Schedule are permitted. Any such amendments/alterations may result in the Candidate's tender being rejected.

4.6. Language

Tenders and all information included with them must be in the language stated in the Particulars. Any original document in another language must include an accurate translation into the language stated in the Particulars. Queries and other communications must be in the

³ These documents may include (but are not limited to) any of the following:

drawings, specifications, schedules, reports, information on the site location, any constraints such as existing services or working hours, statutory consents and conditions attached thereto.

⁴ Where a pricing document is required by the Employer, it shall be a schedule of rates which will be derived [in accordance with Section 4.8 of these Instructions] from the pricing document returned as Volume C. Its purpose shall be to value completed work or may also be used in connection with the valuation of a compensation event in accordance with clause 4.5 of PW-CF6.

same language.

4.7. Qualification

Tenders must not be qualified. They must not be accompanied by a cover letter or any other information not included in Volume B or Volume C or specified in these documents.

4.8. Pricing

Unless otherwise stated, all sums given in Tenders must be in euro, to two decimal places.

The Employer may provide a Schedule of Rates or a Bill of Quantities to be completed by the Tenderer and returned as the pricing document (Volume C). Alternatively the Employer may require the Tenderer to prepare a Schedule of Rates or a Bill of Quantities based upon the documents describing the Works as set out in Section 4.2 to these Instructions. The Particulars to these Instructions will advise Tenderers which option applies. If required in the Particulars, a Schedule of Rates or a Bill of Quantities prepared by the Tenderer should be returned as the pricing document (Volume C).

The pricing document will provide the rates and prices in the Contract referenced in clause 4.5 subject to its conforming to this Section 4.8.

Where provided by the Employer, Tenderers must not insert additional items in the pricing document, except where permitted to do so by the pricing document, or make any alterations to the pricing document.

Amounts must be included wherever required in the Form of Tender, and the pricing document. Blank spaces, the terms 'nil', 'included', dashes or the like must not be used. Where zero is a permitted entry, it must be stated as '0.00'. Each amount must properly cover the full inclusive value of the work to which the amount relates.

Tenderers must not use abnormally high or low rates or prices. This prohibition includes using strategies that might allow the Tenderer to benefit disproportionately from clause 4.5 of the Conditions or, if it would be a compensation event under the Contract, a difference between the Contract value of the Works according to the quantities and descriptions in any Bill of Quantities and the Contract value of the Works as set out in the documents describing the Works (Volume A).

Each amount in the pricing document must cover the full inclusive value (excluding value-added tax) of the relevant work, and, where applicable, a fair allocation of the tendered Price.

All items and quantities in any Bill of Quantities must be priced. All items in any Schedule of Rates must be priced.

Tenderers must not use negative rates or prices, or omit rates, or use zero rates, in any Bill of Quantities.

If any Tender does not comply with this Section 4.8, the Employer may proceed according to Sections 5 or 6.

4.9. Consistency with suitability assessment

Subject to Section 2.4 Tenders must be consistent with the Candidate's suitability assessment submission for this competition. Otherwise the Tender may be disqualified at any time during the competition at the Employer's discretion.

4.10. Value-Added Tax

The Form of Tender states whether and to what extent, the tendered Contract Sum includes value-added tax (VAT). The amounts in the Schedule, Part 2 exclude VAT. The Pricing Document excludes VAT unless otherwise stated in the Pricing Document.

If the Pricing Document includes a schedule of items that are not construction operations subject to Relevant Contracts Tax (and therefore to reverse-charge VAT), and, in the Employer's opinion, the categorisation of an item, the VAT rate stated, or the value stated is not correct, the Employer may invoke section 8.2.

4.11. Time for Completion

The Particulars state the Time for Completion period for the Works (see clause 1.1 of the Short Public Works Contract for definition) which is also stated in the Schedule.

4.12 Project Supervisor

The Contractor or its nominee will be appointed as project supervisor for the construction stage under the Safety, Health and Welfare at Work (Construction) Regulations 2013, if so stated in the Schedule.

If the candidate has named a proposed project supervisor for the construction stage in its suitability assessment submission for this competition, the Candidate must also include that name as part of their Tender and enclose it with Volume B.

If the Candidate has not named a nominee in its suitability assessment submission for

appointment as project supervisor for the construction stage, (if required in the documents describing the Works) the Candidate will be taken to offer to act in the role itself, and the Contract, if awarded to the Candidate, will require the Candidate to accept the role. In this case, the Candidate must be a competent individual or body corporate.

4.13 Tender Execution

The acceptance of the Form of Tender (Employer signing and sending the 'Tender Accepted' section of Volume B by the Employer creates a binding contract. The 'Tender Accepted' form shall be completed and signed by the Employer only after all award procedures have been completed.

- The Form of Tender must be signed as follows:
 - if the Tenderer is a company, the signature must be that of a director and the execution must be witnessed;
 - if the Tenderer is an individual, he or she must sign the Form of Tender and the execution must be witnessed;
 - if the Tenderer is a partnership then each partner must sign the Form of Tender and the execution must be witnessed;
 - if the Tenderer is a company registered elsewhere than Ireland, it must execute the Form of Tender under hand according to the laws of its place of incorporation. If so requested by the Employer a legal opinion that the Form of Tender has been duly executed in accordance with the requirements of the jurisdiction in which the company is registered may be requested by the Employer following the submission of tenders and must, if requested, be provided at the Tenderer's cost.
-

4.14 Deposits

The Deposit required for tender documents as stated in the Particulars will be refundable to all tenderers that submit *bona fide* tenders that are not subsequently withdrawn. The deposit is to cover the cost incurred by the Contracting Authority in preparing the relevant tender documents.

5. Non-Compliant Tenders

If a Tenderer fails to comply in any way with these Instructions, the Employer may (but is not obliged to) disqualify the Tenderer concerned and reject any Tender concerned as non-compliant, and, without prejudice to this right, the Employer may (but is not obliged to) seek clarification or further information (that does not materially alter a Tender) from the Tenderer in respect of the relevant tender or take any other step permitted by law, including the principles of equal treatment, non-discrimination, transparency and proportionality.

6. Corrections, unbalanced and abnormal tenders and rates and permitted adjustments for Specialist Works

6.1 Errors

The Employer may, without any responsibility for this, examine the Pricing Document for errors in addition or extension.

If there is an error in extension, the rate will be adjusted, so that the extension remains the same.

If there is an error in addition, the amounts added (and the rates making them up) will be adjusted pro rata to the error, so that the total remains the same. This will apply if the total of the tendered rates and prices, with value-added tax added, does not add up to the tendered Contract Sum.

The Employer will decide which amounts and rates are to be adjusted.

Instead of adjusting the amounts added, the Employer may in its discretion adjust an item described in the Pricing Document as an 'adjustment item'.

No adjustment made under this section 6.1 will affect the tendered Price.

The Employer reserves the right to open all Pricing Documents from tenderers without the need to revert to the tenderers for permission.

6.2 Unbalanced Tenders

If, in the Employer's opinion, the tendered rates or prices in the pricing document (after adjustment under Section 6.1 above) do not reflect a fair allocation of the tendered Price, or the last sentence of Section 4.9 applies, the Employer may (but is not obliged to) do either or both of the following:

- require the Tenderer to provide a breakdown of any tendered amounts, to show that they reflect a fair allocation of the tendered Price and
- invite the Tenderer to adjust rates or prices tendered in the pricing document, but without adjusting the tendered Price.

The Employer will pay particular attention to pricing that could result in the Tenderer, if successful, being paid too much of the Price disproportionately early in comparison with the amount of work done.

If, having considered the information provided (both in the Tender and in response to a requirement under this Section 6.2), the Employer is of the view that the Tenderer's tendered rates or prices in the pricing document do not reflect a fair allocation of the tendered Price, the Employer may reject the tender.

6.3 Abnormally low tenders, abnormally high or low rates or prices

If, in the Employer's opinion, the tendered Contract Sum is abnormally low or any tendered amounts (including the rates tendered in the Schedule, part 2) are abnormally low or abnormally high, the Employer may require the Tenderer to provide details of the constituent elements of the tendered Contract Sum or the tendered amounts. This may include (without limitation) the information listed in Regulation 69(1) of the European Communities (Award of Public Authorities' Contracts) Regulations 2006. Any failure to provide such information, when requested, may exclude the tender from further consideration. If, having considered the information provided, the Employer is of the view that either the Contract Sum is abnormally low or any tendered amounts are abnormally low or abnormally high, the Employer may reject the Tender.

No adjustment made under this section 6.3 will affect the tendered Price.

7. Assessment of Tenders

7.1 Award Criteria

The award criterion is: (i) the most economically advantageous Tender meeting the specified minimum criteria:

The assessment of the Most Economically Advantageous Tender (where applicable) will be made on the basis of the award criteria in the Particulars.

Options, variant tenders, and standard tenders will be assessed according to these criteria.

7.2 Clarification

The Employer may seek clarification or further information or both from one or more Tenderer in relation to its tender submission. The Employer may meet with one or more Tenderer for these purposes. The Employer will confirm to the Tenderer concerned in written minutes any clarification arising from a meeting and the Tenderer will be required to confirm or correct the minutes in writing. See also section 8.4.

7.3 Compliance

The Employer may assess whether any of the grounds for exclusion in Section 3.2 or 3.3 above apply.

The Employer will assess Tenders for compliance with these Instructions, including provision of all the information and documentation required, and the matters covered in Section 6 above.

Following the assessments under this Section 7.3, the Employer may proceed according to Sections 5 or 8 whichever is appropriate.

7.4 Review

Not applicable.

7.5 Assessment of tender price

The tender with the lowest tendered Price will be awarded the maximum marks available for price. The methodology for the assessment of tendered price will be as follows:-

$$\text{Tendered Price for Tenderer X} = \frac{A \times B}{C}$$

Where:

A = Total marks available for tendered Price

B = Lowest tendered price

C = Tender Price of Tenderer X

7.6 Assessment of other criteria

The criterion relating to "Compliance with Technical Specification" is a Pass/Fail criterion. The tender must be compliant with Volume A otherwise it will be deemed a non-compliant bid.

Tenderers must submit a Project Execution Plan (PEP), which includes a detailed methodology for carrying out the works in compliance with Volume A Works Requirements. The PEP should focus on how the proposed works will be executed and should illustrate the tenderer's understanding of the works requirements as set out in Volume A. The PEP should demonstrate the Tenderer's ability to plan how the works will be carried out safely and effectively and should consist of a programme for the completion of works with the sequence of activities/tasks itemised in a logical step by step format, from the commencement of works through to works completion. The PEP should also include details of the proposed resources (including key persons) who will carry out the works.

7.7 Change in circumstances

If, as a result of a change in circumstances or otherwise, any information given by a Tenderer to the Employer, in a Tender or otherwise, including in a prequalification questionnaire, was (when submitted) or has become (by reference to the facts as they then stand) untrue, incomplete or misleading, the Tenderer must so inform the Employer as soon as it becomes aware of this. If appropriate, the Tenderer may make a request under section 2.4 to change information in its prequalification submission.

If it comes to the Employer's attention that

- there has been a change in circumstances concerning a Tenderer that could affect the Employer's assessment of that Tenderer's Tender or the Employer's decision to invite the Tenderer to submit a Tender or
- information submitted by a Tenderer was (when submitted) or has become (by reference to the facts as they then stand) untrue, incomplete or misleading

the Employer may (but is not required to) revise its assessment of the Tenderer's Tender or

prequalification on the basis of the information then available to the Employer.

8. Award Process

- 8.1. Negotiated Procedure** The Employer may operate the Negotiated Procedure for the purposes of this tender action.
-
- 8.2. Tender validity period** The Employer may accept a Tender any time within the time stated in the Particulars.
-
- 8.3. Notification** As soon as practicable after reaching the award decision, the Employer will inform all Tenderers of the decision.
- The notification to the Tenderer to whom the Employer has decided to make an award should be in the form of Model Letter R.na.7 *Letter to Successful Tenderer*. The notification to the other Tenderers should be in the form of Model Letters R.na.8 *Letter to Unsuccessful Tenderer* and should issue at the same time as the Letter to Successful Tenderer.
- The *Letter to Successful Tenderer* (R.na.7) will not form the Contract, or any contract or other obligation. The Contract will be formed only by issue of the Tender Acceptance.
-
- 8.4. Letter to Successful Tenderer** The Letter to Successful Tenderer (R.na 7).should request the Tenderer to submit to the Employer any or all of the following:
- evidence of the insurances required by the Contract
 - a Tax Clearance Certificate or demonstrate a satisfactory level of subcontractor tax compliance from the Revenue Commissioners⁵
 - any confirmation of appointment as project supervisor for the construction stage
- If the Tenderer to whom such a Letter to Successful Tenderer (R.na 7). is addressed does not submit the documents as required within the time allowed, the Employer may
- proceed according to the process in Section 8.3 above to initiate award to the Tenderer who submitted the next lowest priced tender, or
 - allow the Tenderer to whom the Letter to Successful Tenderer (R.na.7) was addressed additional time to provide the documents or
 - issue the Tender Acceptance to the Tenderer to whom the Letter to Successful Tenderer was addressed (R.na.7) (even though the documents have not yet been provided)⁶
-
- 8.5. Tender Acceptance** The Employer may issue the Tender Acceptance at any time during the Tender validity period referred to in Section 8.2 above.
- Any written clarifications of a Tender (including minutes of a meeting clarifying the Tender, see Section 7.2), will be attached to the *Tender Acceptance* of the clarified Tender, and will be included in the Contract.
-

⁵ As a result of the introduction of the new electronic Relevant Contracts tax (e-RCT) system by the Revenue Commissioners in January 2012 the C2 certificate is no longer in use by subcontractors. This change will require to be reflected in the Department of Finance procedures for tax clearance in relation to public sector contracts. Accordingly Circular 43/2006 is being revised and a replacement will issue shortly. In the interim, more details are available at <http://www.revenue.ie/en/tax/rct/subcontractor.html> Note that the changes relate to use of the C2 only.

⁶ A contract should not be awarded to any firm which cannot produce a tax clearance certificate except as a last resort. In such a case, the advance approval of the Department of Finance must be obtained.

Glossary of terms used in these Instructions

Terms defined in the Conditions of the Contract identified in the Particulars have the same meaning in these Instructions. References to clauses are to clauses or sub-clauses of those Conditions. Unless otherwise indicated, references to sections and Appendices are to sections of and Appendices to these Instructions.

Term	Meaning
Candidate	a person (or group of persons) that has been invited to submit a Tender
Contract	the contract that may be awarded by the Employer for the Works at the end of the competition.
this competition	the award process for which these Instructions are issued.
these documents	These Instructions and the invitation letter and other documents issued with it and any additional information issued by the Employer to Tenderers in connection with the competition.
these Instructions	<ul style="list-style-type: none"> • this volume, including the Preface at the start, Particulars and Appendices • other information or instructions issued by the Employer to Tenderers in connection with the competition not stated to amend the Contract documents.
Tender	a tender for the Contract, including the completed Form of Tender and Schedule (FTS6) and completed Pricing Document.
Tenderer	A Tenderer that has submitted a tender is designated a tenderer [2004/18/EC Article 1(8) and SI No 329 Of 2006 Regulation 3(1)]

Particulars

These are the Particulars referred to in the Instructions. They are part of the Invitation to Tender (ITT).

Tender for	7109-24
Comprising:	Fencing at 7 locations in Division 17 see Table 2.1 in Scope of works
At	Division 17
For	Iarnród Éireann
Using [section 1.3]	The form of Conditions set out in the Short Public Works Contract (PW-CF6 v.1.12) dated 5 th June 2019

Employer's contact details [section 2.1]	Contact Name	[REDACTED]
	Address	Procurement Department, Iarnród Éireann, CIE Railway Works, Inchicore, Dublin 8, D08 KY63

Supplemental Information and Queries [sections 2.2, 2.3]	Latest date for queries	12:00 hours – Tuesday 3 rd November 2020
	Date after which Employer will not normally issue supplemental information or responses to queries	12:00 hours – Wednesday 4 th November 2020

Employer's contact details for queries [section 2.3]	Contact Name	[REDACTED]	
	Address	As above	
	Phone:	E-mail	Fax:
	01 7031775	Noel.coss@irishrail.ie	

Timetable for Competition	Contract Notice date:	<i>Not Applicable</i>	Reference	<i>Not Applicable</i>
	Issue Tender Documents:	20 th October 2020		
	Receipt of Tenders	As indicated under "Tender Date"		
	Interviews (if required):	Within subsequent 2 weeks (if required)		
	Site Visit	Thursday 29 th October 2020 @ 09:30hrs Meeting Point: Port of Cobh Car Park		

Tender Date [section 4.1]	Latest Date and time for Submission of Tenders	12.00 on Friday 6th November Via E-Tenders
------------------------------	--	--

Tender submissions (in writing) must be sent to: [section 4.1]	Contact Name	[REDACTED]
	Address	Procurement Department, Iarnród Éireann, CIE Railway Works, Inchicore, Dublin 8, D08 KY63

Delivery by [section 4.1]	Must be uploaded to E-Tenders by closing date above
------------------------------	--

]

Other Instructions	<i>Not Applicable</i>
--------------------	-----------------------

[section 2.5]		
Tender Documents [section 4.2]	<p>Attached to these Instructions are the following documents, divided into two categories set out below:</p> <p>Documents to be included in the Contract</p> <ul style="list-style-type: none"> • the Tender Acceptance issued by the Employer (Volume B) and • any written post-tender clarifications (Volume B) • the Conditions to the Short Public Works Contract (PW-CF6) (Volume D) • the documents describing the Works (Volume A) • the completed Form of Tender and Schedule (Volume B) <p>note: Please note that a Bill of Quantities will not form part of this Contract.</p> <p>Documents for information purposes only (<i>not</i> to be included in the Contract)</p> <ul style="list-style-type: none"> • the invitation letter and these Instructions • any Bill of Quantities • any other information issued to Tenderers not stated to amend the Contract documents • any other information submitted with Tenders and not called for in these Instructions or in post tender clarifications. <p>Further information may be issued as described in these Instructions</p>	
Deposit [section 4.15]	Deposit required on issue of tender documents	<i>Not Applicable</i>
Number of Tenders per Tenderer [section 4.3]	Maximum number of Tenders to be submitted by each Candidate is one	
Format of Tender Submissions [Section 4.5]	<p>Tenders will consist of the following documents:</p> <ol style="list-style-type: none"> 1. Completed Form of Tender & Schedule (Volume B) 2. Completed Pricing Document (Volume C); please note that where provided, the excel version of Volume C - Pricing Document must be completed by inserting the relevant rates within this document and returning in E-tenders. 3. Project Execution Plan (PEP), which includes a detailed methodology for carrying out the works in compliance with Volume A Works Requirements. The PEP should focus on how the proposed works will be executed and should illustrate the tenderer's understanding of the works requirements as set out in Volume A. The PEP should demonstrate the Tenderer's ability to plan how the works will be carried out safely and effectively and should consist of a programme for the completion of works with the sequence of activities/tasks itemised in a logical step by step format, from the commencement of works through to works completion. The PEP should also include details of the proposed resources (including key persons) who will carry out the works. 	
Language [section 4.6]	English	
Pricing [section 4.9]	Pricing format: Fixed Price Lump Sum	
Pricing Document [section 4.9]	The rates and prices in the Contract (clause 4.5 of PW-CF6) shall be derived from: Bill of Quantities prepared by Employer	
Time for Completion [section 4.11]	Time for Completion	40 days, starting on the day this Contract comes into effect.

	CA note: must accord with period stated in Schedule to Contract
Form of Tender to be sealed [section 4.13]	No
Award Criterion [section 7.1]	Most Economically Advantageous Tender
	Compliance with Specification Pass/Fail Price 100%
	Tendered Price 1000 marks
Tender Validity Period [section 8.2]	As stated in Form of Tender and Schedule (FTS 6) (Volume B).

Appendix 1 - Schedule of Rates or Bill of Quantities

Application

This appendix applies if the Employer requires the Tenderer to prepare and submit a Schedule of Rates or Bill of Quantities with their Tender. Should this arise notification will be included in the Particulars under Pricing document (Instructions Section 4.8)

Requirements for the format of the Schedule of Rates or Bill of Quantities that the Employer requires from the Tenderer e.g. the method of measurement etc.



PRELIMINARY HEALTH AND SAFETY PLAN

**OBC437 & OBC438 Deck & Handrail Renewals, Lower Road, Ringmeen, Cobh, Co. Cork
Located at 176 miles 0631 yards & 176 miles 1208 yards on the Cork to Cobh Railway Line**

Senior Track & Structures Engineer's Office,
Limerick Junction Station,
Limerick Junction,
County Tipperary.
20th September 2017
Revision 1.0

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1 INTRODUCTION

This preliminary Health and Safety Plan has been prepared in accordance with the Safety Health and Welfare at Work (Construction) Regulations, 2013 (S.I. No. 291) by the Project Supervisor Design Process for the Design Stage (PSDP). It is being made available to the Project Supervisor Construction Stage appointed for the Construction Stage (PSCS) who will incorporate and develop it as required into the final Health and Safety Plan.

1.1 *Extent & Location of Existing Records and Plans.*

Limerick Junction Technical Office to be contacted for existing records and plans.
Drawings which related to this project are as follows:

- **151-4287 (OBC437)**
- **151-4288 (OBC437)**
- **151-4285 (OBC438)**
- **151-4286 (OBC438)**

1.2 *Communication with Designers, PSCS and third parties.*

Communication between parties by phone, e-mail and meetings if required

2 GENERAL DESCRIPTION OF PROJECT

2.1 *Title*

The Project will be known as the “OBC437 & OBC438 Deck & Handrail Renewals”

2.2 *Project Description*

The condition of the bridge decks of footbridges OBC437 and OBC438, both located over the Cork – Cobh railway line in Cobh, is such that the following works are required to ensure ongoing structural integrity and the safety of the users of these footbridges.

- OBC437. Works consist of removal of existing tarmac and timber decking material from the existing bridge deck down to steel deck. Removal of existing hand rails running the length of the bridge along each edge of the deck. Minor steel repairs to the bridge deck. Preparation for and application of waterproof protection to steel bridge deck. Installation of covered drainage channel on the bridge deck along with associated drainage outfalls. Reinstatement of the bridge deck surfacing. Installation of new handrails with mesh infill along both edges of the bridge deck.
- OBC438. Works consist of the complete removal of the existing bridge deck and handrails. Installation of new bridge deck along with handrails with mesh infill. Repairs to the stringers on the access steps. Installation of new bearings on the seaward end of the bridge along with brick and masonry repairs in the area of the bearings.

Closure of the footbridges are required to undertake the works and there will be railway possessions during the works as necessary. While works are underway access across either OBC437 or OBC438 is to be maintained at all times unless by agreement with the Client and Cork Co. Co. Access to the site will be gained via the lower road on the downside of the structures (North of the Structures) and via public car park on the upside of the structure (South of the Structure).

2.3 *Details of Client, Designers, PSDP, PSCS & Other.*

Client for Project.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Designers for Project.

Iarnród Éireann,
Technical Department,
Engineering & New Works Building,
Inchicore,

Dublin 8,
D08 K6Y3

Project Supervisor Design Phase.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

2.4 Site Specific Information

The sites are located at 176 miles 0631 yards (OBC437) and 176 miles 1208 yards (OBC438) on the Cork to Cobh Railway Line on the approach to Cobh Station.

OBC437 provides public pedestrian access from the 'Lower Road' to Whitepoint Moorings residencies and the walkway through the Waterfront Car Park. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond. The bridge spans the railway, private gardens, public roadway and pedestrian footpath accessing the Waterfront Carpark the quay and is immediately adjacent to the Cobh Sailing Club Dinghy Park and private houses.

The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a level paved area and there is a tubular steel fence along the sea wall.

OBC438 provides public pedestrian access from the 'Lower Road' to the Waterfront Car Park and the Cruise Liner Quay. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond.

The bridge spans the railway, railway lands, public roadway and walkway through the Waterfront Carpark. The bridge is also immediately adjacent to Cobh Garda Station and in sight of Cobh Station platform and buildings.

The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a very restricted paved area which immediately leads onto further steps that lead down to the sea. While there is a tubular steel fencing along the sea wall the access to the steps leading to the sea is unguarded.

The following hazards have been noted on the site and controls need to be put in place by the PSCS

- Working at heights
- Access to works site
- Public/Private interface.
- Noise
- Working adjacent to water
- Open steps leading to sea
- Removal of handrails
- Open lattice structure when handrails removed.
- Renewal of handrails

- Removal of deck
- Renewal of deck
- Train Movements
- Fire

2.5 Restriction on Work Activities

As set out in 'Site Specific Information', these bridges span and border a number of types of areas. In addition to ensuring the health and safety of those involved in the works, the health and safety of persons and properties in these areas will need to be protected from the works activities. Work methods and safety measures will need to reflect this requirement. While works are underway access across either OBC437 or OBC438 is to be maintained at all times unless by agreement with the Client and Cork Co. Co.

2.6 Restrictions on Access

Access to the track if required will be via approved Irish Rail access points only. In Cobh there is a machinery access point (APCU-176-1048) located at 176 miles 1023 yards. Access to private lands, Cobh Sailing Club Dinghy Park, the Waterfront Car Park and from the 'Lower Road', will be by agreement with the relevant parties.

2.7 Restrictions on Working Hours

To be ascertained by the PSCS. Proximity to the operational railway, private housing, sailing club, public roads and public areas will have to be considered when the works are planned. This will impact on the times when work can take place.

2.8 Welfare Facilities

Welfare facilities must be provided and accessible to all Irish Rail and Contractors staff required on site for the duration of the works.

2.9 Resources

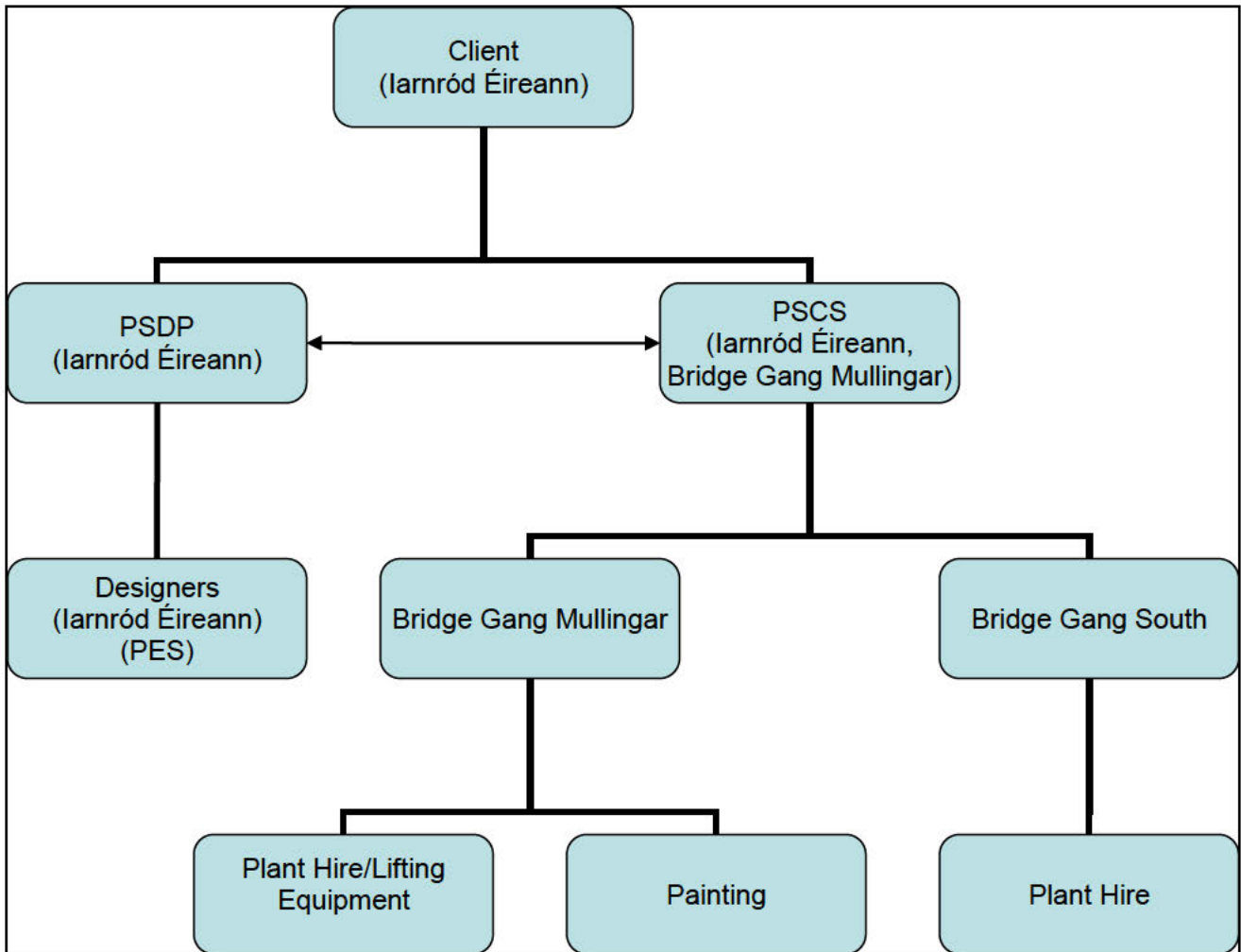
To be allocated by the PSCS

2.10 Notification Requirements

In accordance with the construction regulations (2013), AF1 form is to be notified to the HSA, Signed copy of the form is to be located in the Safety File stored in the site offices.

3 PROJECT SCHEDULE.

3.1 Structure and Organisation



3.2 Timescale and Programme for the Project

To be ascertained by the PSCS

3.3 Permits and Authorisation Requirements

Method statements shall be prepared, submitted and re submitted well in advance so as to allow approval of same by the client's engineer. These method statements shall be updated where affected by design changes or site circumstances.

The following permits at least, shall be required but this is a non-exhaustive list:

- CCE-SMS-005, Contractors permit to Access where required.
- Disposal of waste.

3.4 Emergency Procedures

To be incorporated in to the Construction Stage Health and Safety Plan (CSHSP) and outlined in Method Statements

3.5 Site Rules and Other Restrictions

To be ascertained by the PSCS and incorporated into the CSHSP

4 CONSTRUCTION SEQUENCE

4.1 *Construction Sequence*

To be ascertained by the PSCS

4.2 *Construction Installation and Maintenance*

- The works are to be carried out in accordance to the relevant design information provided by Senior Track and Structures Office Limerick Junction. Any changes to this design must be notified to the PSDP in writing.
- On completion of the works any disturbed ground shall be restored to the satisfaction of the Company's Engineer. Any additional fencing required to secure railway boundary to be erected as necessary.
- All works must comply with the current Irish Rail Technical Management Standards, Quality Management Standards and Safety Management Standards.

5 SIGNIFICANT DESIGN AND CONSTRUCTION HAZARDS

5.1 *Design Assumptions and Control Measures*

All materials provided and all work executed under this Contract shall be in accordance with the relevant European Standard Specifications, British Standard Specifications or British Standard Codes of Practice and the 2013 Construction Regulations.

Technical, safety, health and environmental risk and application data sheets to be provided and the specified control measures implemented.

5.2 *Coordination of Ongoing Design Works and Design Changes*

It is the responsibility of all designers and contractors to notify the PSDP and PSCS of any changes in writing. The PSDP shall then prepare an amended preliminary health and safety plan, which shall be passed to the PSCS for updating the safety and health plan.

All exchanges of design information between designers (including temporary works designers), the Project Supervisor Construction Stage and Contractor shall be promptly forwarded to the Project Supervisors Design Process.

6 SAFETY FILE

The safety file shall include details of the structure and work carried out which may be of relevance to the safety and health of any person who may have to carry out any work on the structure and its associated services in the future. It shall contain as a minimum the following:

- Construction drawings, specifications and pricing document/bills of quantities used and produced throughout the construction process;
- General design criteria adopted and details of the equipment and maintenance facilities within the structure;
- Maintenance procedures and requirements for the structure;
- Manuals and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical

Preliminary Health & Safety Plan

OBC437 & OBC438 Deck & Handrail Renewals Lower Road, Ringmeen, Cobh, Co. Cork

installations, pressure vessels, control and instrumentation systems, window cleaning facilities)

- Details of the location and nature of utilities and services, including emergency and fire fire-fighting systems.
- Details of specialists/sub-contractors used during the works

The information for the safety file shall be forwarded to the PSDP as follows;

AutoCAD 2013: Construction 'As Built' drawings x 2

Microsoft Word: Specifications x 2, Method statements x 2

Microsoft Excel: Pricing document/Bills of Quantities x 2

PDF: General Design Criteria Adopted x 2, Maintenance Procedures and Requirements for the Structure x 2, Manuals (including operating and maintenance) x 2, Certificates x 2, Warranties x 2, Commissioning test results/certificates x 2, Details of specialists/sub-contractors used during the works x 2

The information for the Safety file from Designers, Project Supervisor Construction Stage, Contractor and others involved in the project shall be issued Project Supervisor Design Process within 14 days of the date of issue of the Final Certificate.

7 HEADLINE RISK & MITIGATION MEASURES

7.1 *Headline Risk & Mitigation Measures*

A list of Risks are outlined in, Safety Station, Risk Assessment Book, in Per Way inspector's office Cork Railway Station. There is also Construction Regulation Folders in each Per Way van.

This includes a Detailed Risks, Mitigation Measures & Risk Assessment.
(This Document should be read in conjunction this Preliminary Health and Safety Plan)

7.2 *Hazards Associated with the Site*

The following hazards have been identified on the site and outlined in section 2.4. A site specific Risk Assessment will need to be carried out by the PSCS and relevant controls will need to be put in place. This is a non-exhaustive list

1. **Hazard:** Working at heights
2. **Hazard:** Access to works site
3. **Hazard:** Interaction with the public
4. **Hazard:** Noise
5. **Hazard:** Working near water
6. **Hazard:** Open steps leading to sea
7. **Hazard:** Train Movements
8. **Hazard:** Removal of handrails
9. **Hazard:** Open lattice structure when handrails removed.
10. **Hazard:** Renewal of handrails
11. **Hazard:** Removal of deck
12. **Hazard:** Renewal of deck
13. **Hazard:** Fire

8 INFORMATION TO BE READ IN CONDUCTION WITH PRELIMINARY HEALTH AND SAFETY PLAN

8.1 Project Design Information

- Limerick Junction Technical Office to be contacted in relation to design information

SE&T – Not applicable for this project

ESAT telecoms – Not applicable for this project

Service providers

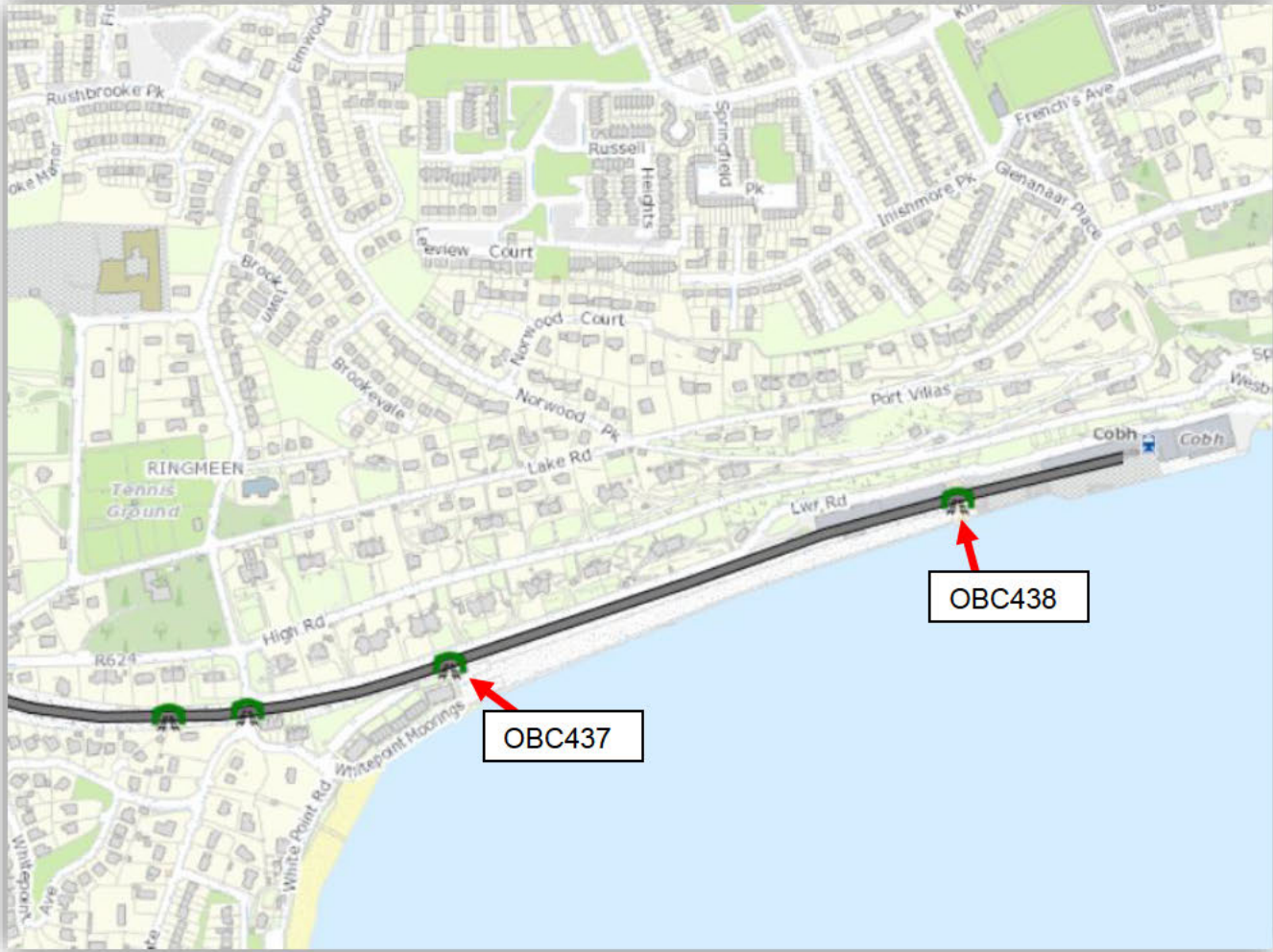
- Service providers have been contacted by the STSE Department re providing details of any buried or over ground services. These details will be passed to the PSCS when they are furnished by the Service Providers.

8.2 Other Information to be read in Conjunction with Preliminary health and Safety Plan

- Construction Stage Health and Safety Plan
- Method Statements
- I-PWY-1490 Mobile Gang Work Instruction
- Construction Regulation Folders

9 SITE LOCATION AND YARD LAYOUT PLAN

Site Location



Access Points

- Access to railway via approved Irish Rail Access Points **ONLY**
- Access to lands bounding the railway will be by agreement with relevant landowner
- Access Point A (APCU-176-1048) is pedestrian & large plant/machinery



10 PHOTOGRAPHS

OBC437



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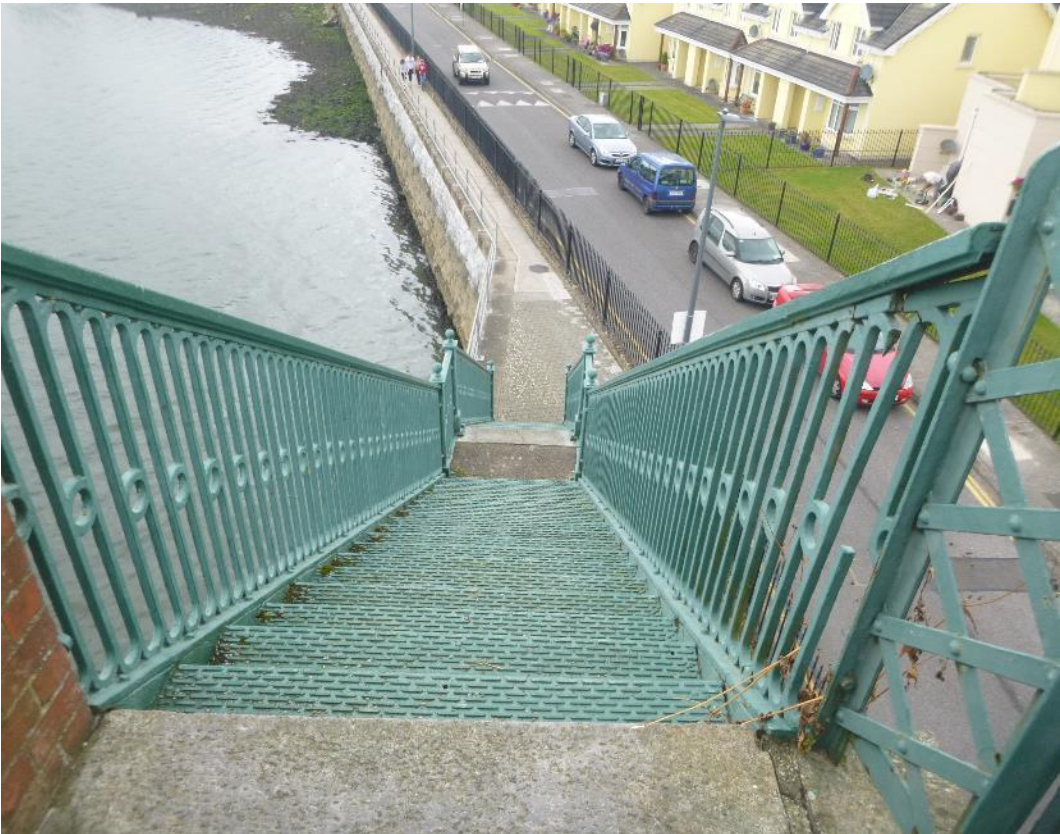
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OBC438



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11 APPENDIX A



Safety, Health and Welfare at Work (Construction) Regulations 2013

Approved Form (AF 1)

Regulation 10

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

Any day on which construction work is carried out (including holidays and weekends) should be counted, even if the work on that day is of short duration. A person day is one individual, including supervisors and specialists, carrying out construction work for one normal working shift.

This Notification is to be made by Registered Post to HSA, Metropolitan Building, James Joyce Street, Dublin 1; or as may be directed by the Authority.

1 Client: Provide name, full address, telephone number and e-mail address for the Client. If more than one Client, please attach details of all Clients on a separate sheet.

Name:	Iarnród Éireann		
Address:	Engineering & New Works Building, Inchicore, Dublin 8		
Telephone:	01 703 4228	E-Mail:	info@irishrail.ie

2 Project Supervisor Design Process and Health & Safety Coordinator: Provide name, full address, telephone number and e-mail address for the PSDP and Health & Safety Coordinator for the Design Process.

PSDP Name:	Iarnród Éireann	H&S C. Name:	
Address:	Engineering & New Works Building, Inchicore, Dublin 8	Address:	
Telephone:	01 703 4228	Telephone:	
E-Mail:	info@irishrail.ie	E-Mail:	

3 Project Supervisor Construction Stage and Health & Safety Coordinator, if known: Provide name, full address, telephone number and e-mail address for the PSCS and Health & Safety Coordinator for the Construction Stage.

PSCS Name:		H&S C. Name:	
Address:		Address:	
Telephone:		Telephone:	
E-Mail:		E-Mail:	

4 Information on Construction Work: Please provide your details of the following.

Description of Project:	The title of the project is "OBC437 & OBC438 Deck and Handrail Renewals" OBC437 and OBC438 are located on the Cork to Cobh line at 176miles 631yards and 176miles 1208yards respectively		
Exact Address of Construction Site:	OBC437 & OBC438 Lower Rd, Ringmeen, Cobh, Co. Cork		
Signed:		by or on behalf of the Client	
Position:	Safety Executive	Date:	21-August-2017

12 APPENDIX B

Príomhinnealtóir Bonneagar, Iarnród Éireann Inse Chór, Baile Átha Cliath 8.

Chief Civil Engineer, Iarnrod Éireann, Inchicore, Dublin 8

T 01 703 4201 [REDACTED] www.irishrail.ie



Iarnród Éireann,
Engineering & New Works Building,
Inchicore,
Dublin 8.

21st of August 2017

Re: Appointment of Project Supervisor for the Design Process for OBC437 & OBC438 Deck and Handrail Renewals on the Cork to Cobh line at 176miles 631yards and 176miles 1208yards respectively

Dear Sir/Madam,

The Client, being Iarnród Éireann, wishes to confirm the appointment of Iarnród Éireann, as Project Supervisor for the Design Process for the Project and to confirm the appointment and acceptance of the role in accordance with Section 17 of the Safety Health and Welfare at Work Act and Part 2 of the 2013 Construction Regulations.

In addition, it is confirmed and agreed that, Iarnród Éireann, undertakes that they are competent to and shall perform the duties of Project Supervisor appointed for the Design Process as required by the Regulations and in accordance with Section 17 of the 2005 Act, the duty to ensure, in so far as is reasonably practicable, that the works are constructed and can be maintained so as to be safe and without risk to health.

Yours faithfully,

[REDACTED] (by or on behalf of)

The Client,
Iarnród Éireann

Date:

21/08/17



PRELIMINARY HEALTH AND SAFETY PLAN

**OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork
Located at 176 miles 1208 yards on the Cork to Cobh Railway Line**

Senior Track & Structures Engineer's Office,
Limerick Junction Station,
Limerick Junction,
County Tipperary.
16th April 2018

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Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

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1 INTRODUCTION

This preliminary Health and Safety Plan has been prepared in accordance with the Safety Health and Welfare at Work (Construction) Regulations, 2013 (S.I. No. 291) by the Project Supervisor Design Process for the Design Stage (PSDP). It is being made available to the Project Supervisor Construction Stage appointed for the Construction Stage (PSCS) who will incorporate and develop it as required into the final Health and Safety Plan.

1.1 *Extent & Location of Existing Records and Plans.*

Limerick Junction Technical Office to be contacted for existing records and plans.
Drawings which related to this project are as follows:

- **151-5054 (Temporary Works Scaffolding Details)**

1.2 *Communication with Designers, PSCS and third parties.*

Communication between parties by phone, e-mail and meetings if required

2 GENERAL DESCRIPTION OF PROJECT

2.1 *Title*

The Project will be known as the “OBC438 Bridge Painting”

2.2 *Project Description*

The condition of the paint system of footbridge OBC438, located over the Cork – Cobh railway line in Cobh, is such that the following works are required to ensure ongoing integrity of the footbridge.

- Works consist of the erection of scaffolding around the structure, which is to be fully enclosed with shrink-wrap. Scaffolding and shrink-wrap to fully encapsulate the structure. There will be no scaffolding below the bridge structure over the track. Once structure is encapsulated all surfaces are to be prepared for painting. There are separate preparation specifications for the “steel works sections and fresh galvanise sections”. Once all surfaces are prepared the structure is to be painted in line with painting specification. Upon completion of works site will be demobilised and bridge will be re-open to the public.

Closure of the footbridge will be required to facilitate the works and there will be railway possessions during the works as necessary. Access to the site will be gained via the lower road on the downside of the structures (North of the Structures) and via public car park on the upside of the structure (South of the Structure).

2.3 ***Details of Client, Designers, PSDP, PSCS & Other.***

Client for Project.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Designers for Project.

Iarnród Éireann,
Technical Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

Project Supervisor Design Phase.

Iarnród Éireann,
Chief Civil Engineer Department,
Engineering & New Works Building,
Inchicore,
Dublin 8,
D08 K6Y3

2.4 ***Site Specific Information***

The site is located at 176 miles 1208 yards on the Cork to Cobh Railway Line on the approach to Cobh Station.

OBC438 provides public pedestrian access from the 'Lower Road' to the Waterfront Car Park and the Cruise Liner Quay. Vehicles of all types including buses and HGV service vehicles pass under the bridge to access the public car park and the cruise liner mooring quay beyond. The bridge spans the railway, railway lands, public roadway and walkway through the Waterfront Carpark. The bridge is also immediately adjacent to Cobh Garda Station and in sight of Cobh Station platform and buildings. The end of the bridge furthest from the railway is adjacent to the Celtic Sea. The bridge access steps land on a very restricted paved area which immediately leads onto further steps that lead down to the sea.

The following hazards have been noted on the site and controls need to be put in place by the PSCS

- Working at heights
- Access to works site
- Public/Private interface.
- Noise
- Working adjacent to water
- Use of high pressure equipment

- Use of chemicals/paints
- Train movements

2.5 Restriction on Work Activities

As set out in 'Site Specific Information', the bridge spans and borders a number of types of areas. In addition to ensuring the health and safety of those involved in the works, the health and safety of persons and properties in these areas will need to be protected from the works activities. Work methods and safety measures will need to reflect this requirement. While works are underway public access across OBC438 will not be permitted. This is to be notified and agreed with the Client and Cork Co. Co.

2.6 Restrictions on Access

Access to the track if required will be via approved Irish Rail access points only. In Cobh there is a machinery access point (APCU-176-1048) located at 176 miles 1023 yards. Access to the Waterfront Car Park will be from the 'Lower Road'.

2.7 Restrictions on Working Hours

To be ascertained by the PSCS. Proximity to the operational railway, private housing, public roads and public areas will have to be considered when the works are planned. This will impact on the times when work can take place.

2.8 Welfare Facilities

Welfare facilities must be provided and accessible to all Irish Rail and Contractors staff required on site for the duration of the works.

2.9 Resources

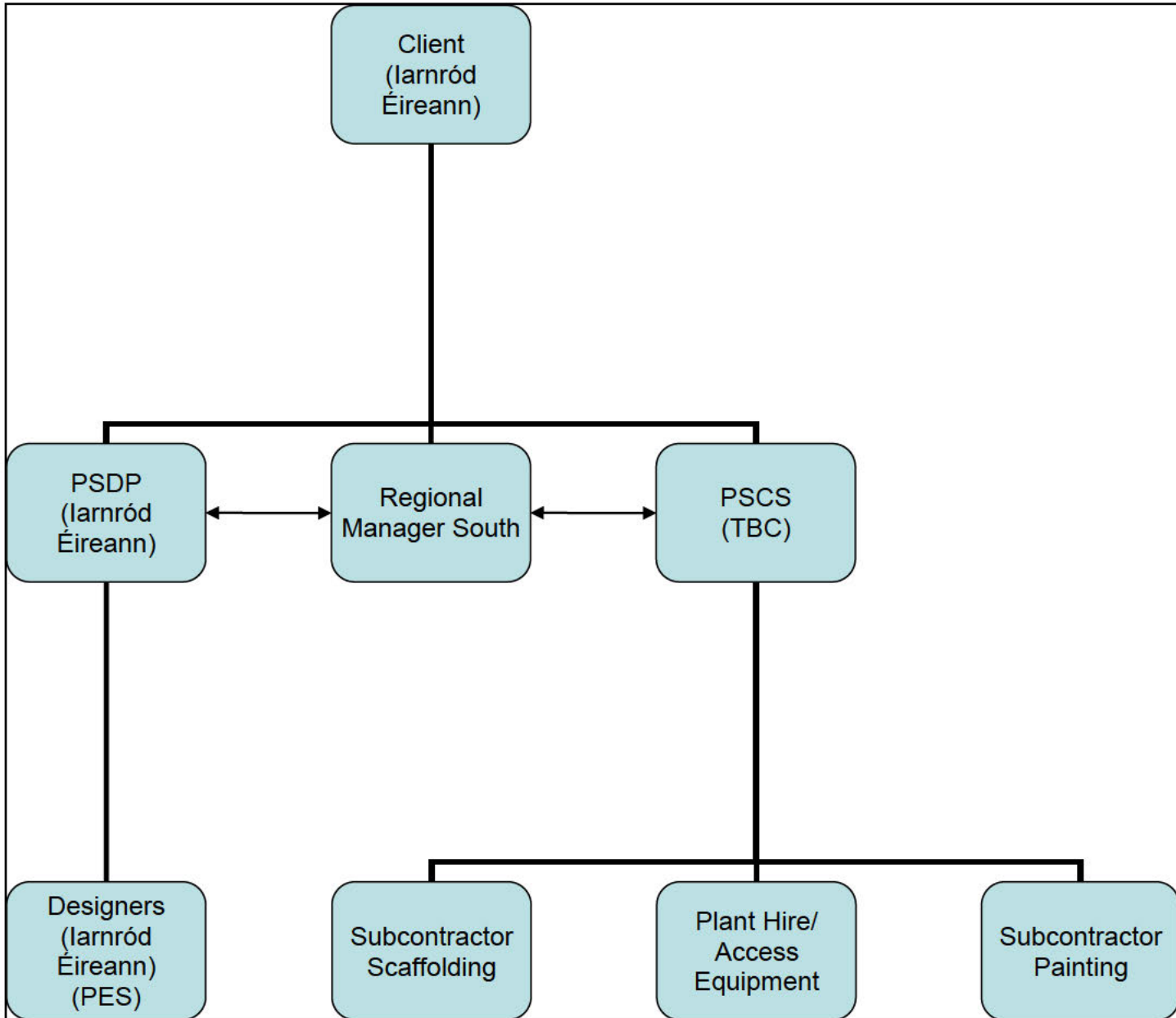
To be allocated by the PSCS

2.10 Notification Requirements

In accordance with the construction regulations (2013), AF1 form is to be notified to the HSA, Signed copy of the form is to be located in the Safety File stored in the site offices.

3 PROJECT SCHEDULE.

3.1 Structure and Organisation



3.2 Timescale and Programme for the Project

To be ascertained by the PSCS

3.3 Permits and Authorisation Requirements

Method statements shall be prepared, submitted and re submitted well in advance so as to allow approval of same by the client's engineer. These method statements shall be updated where affected by design changes or site circumstances.

The following permits at least, shall be required but this is a non-exhaustive list:

- CCE-SMS-005, Contractors permit to Access where required.
- Disposal of waste.

3.4 ***Emergency Procedures***

To be incorporated in to the Construction Stage Health and Safety Plan (CSHSP) and outlined in Method Statements

3.5 ***Site Rules and Other Restrictions***

To be ascertained by the PSCS and incorporated into the CSHSP

4 **CONSTRUCTION SEQUENCE**

4.1 ***Construction Sequence***

To be ascertained by the PSCS

4.2 ***Construction Installation and Maintenance***

- The works are to be carried out in accordance to the relevant design information provided by Senior Track and Structures Office Limerick Junction. Any changes to this design must be notified to the PSDP in writing.
- On completion of the works any disturbed ground shall be restored to the satisfaction of the Company's Engineer. Any additional fencing required to secure railway boundary to be erected as necessary.
- All works must comply with the current Irish Rail Technical Management Standards, Quality Management Standards and Safety Management Standards.

5 **SIGNIFICANT DESIGN AND CONSTRUCTION HAZARDS**

5.1 ***Design Assumptions and Control Measures***

All materials provided and all work executed under this Contract shall be in accordance with the relevant European Standard Specifications, British Standard Specifications or British Standard Codes of Practice and the 2013 Construction Regulations.

Technical, safety, health and environmental risk and application data sheets to be provided and the specified control measures implemented.

5.2 ***Coordination of Ongoing Design Works and Design Changes***

It is the responsibility of all designers and contractors to notify the PSDP and PSCS of any changes in writing. The PSDP shall then prepare an amended preliminary health and safety plan, which shall be passed to the PSCS for updating the safety and health plan.

All exchanges of design information between designers (including temporary works designers), the Project Supervisor Construction Stage and Contractor shall be promptly forwarded to the Project Supervisors Design Process.

6 **SAFETY FILE**

The safety file shall include details of the structure and work carried out which may be of relevance to the safety and health of any person who may have to carry out any work on the structure and its associated services in the future. It shall contain as a minimum the following:

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

- Construction drawings, specifications and pricing document/bills of quantities used and produced throughout the construction process;
- General design criteria adopted and details of the equipment and maintenance facilities within the structure;
- Maintenance procedures and requirements for the structure;
- Manuals and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical installations, pressure vessels, control and instrumentation systems, window cleaning facilities)
- Details of the location and nature of utilities and services, including emergency and fire fire-fighting systems.
- Details of specialists/sub-contractors used during the works

The information for the safety file shall be forwarded to the PSDP as follows;

AutoCAD 2013: Construction 'As Built' drawings x 2

Microsoft Word: Specifications x 2, Method statements x 2

Microsoft Excel: Pricing document/Bills of Quantities x 2

PDF: General Design Criteria Adopted x 2, Maintenance Procedures and Requirements for the Structure x 2, Manuals (including operating and maintenance) x 2, Certificates x 2, Warranties x 2, Commissioning test results/certificates x 2, Details of specialists/sub-contractors used during the works x 2

The information for the Safety file from Designers, Project Supervisor Construction Stage, Contractor and others involved in the project shall be issued Project Supervisor Design Process within 14 days of the date of issue of the Final Certificate.

7 HEADLINE RISK & MITIGATION MEASURES

7.1 *Headline Risk & Mitigation Measures*

A list of Risks are outlined in, Safety Station, Risk Assessment Book, in Per Way inspector's office Cork Railway Station. There is also Construction Regulation Folders in each Per Way van.

This includes a Detailed Risks, Mitigation Measures & Risk Assessment.
(This Document should be read in conjunction this Preliminary Health and Safety Plan)

7.2 *Hazards Associated with the Site*

The following hazards have been identified on the site and outlined in section 2.4. A site specific Risk Assessment will need to be carried out by the PSCS and relevant controls will need to be put in place. This is a non-exhaustive list

1. **Hazard:** Working at heights
2. **Hazard:** Access to works site
3. **Hazard:** Public/Private interface
4. **Hazard:** Noise
5. **Hazard:** Working adjacent to water
6. **Hazard:** Use of high pressure equipment
7. **Hazard:** Use of chemicals/paints
8. **Hazard:** Train Movements

8 INFORMATION TO BE READ IN CONDUCTION WITH PRELIMINARY HEALTH AND SAFETY PLAN

8.1 *Project Design Information*

- Limerick Junction Technical Office to be contacted in relation to design information

SE&T – Not applicable for this project

ESAT telecoms – Not applicable for this project

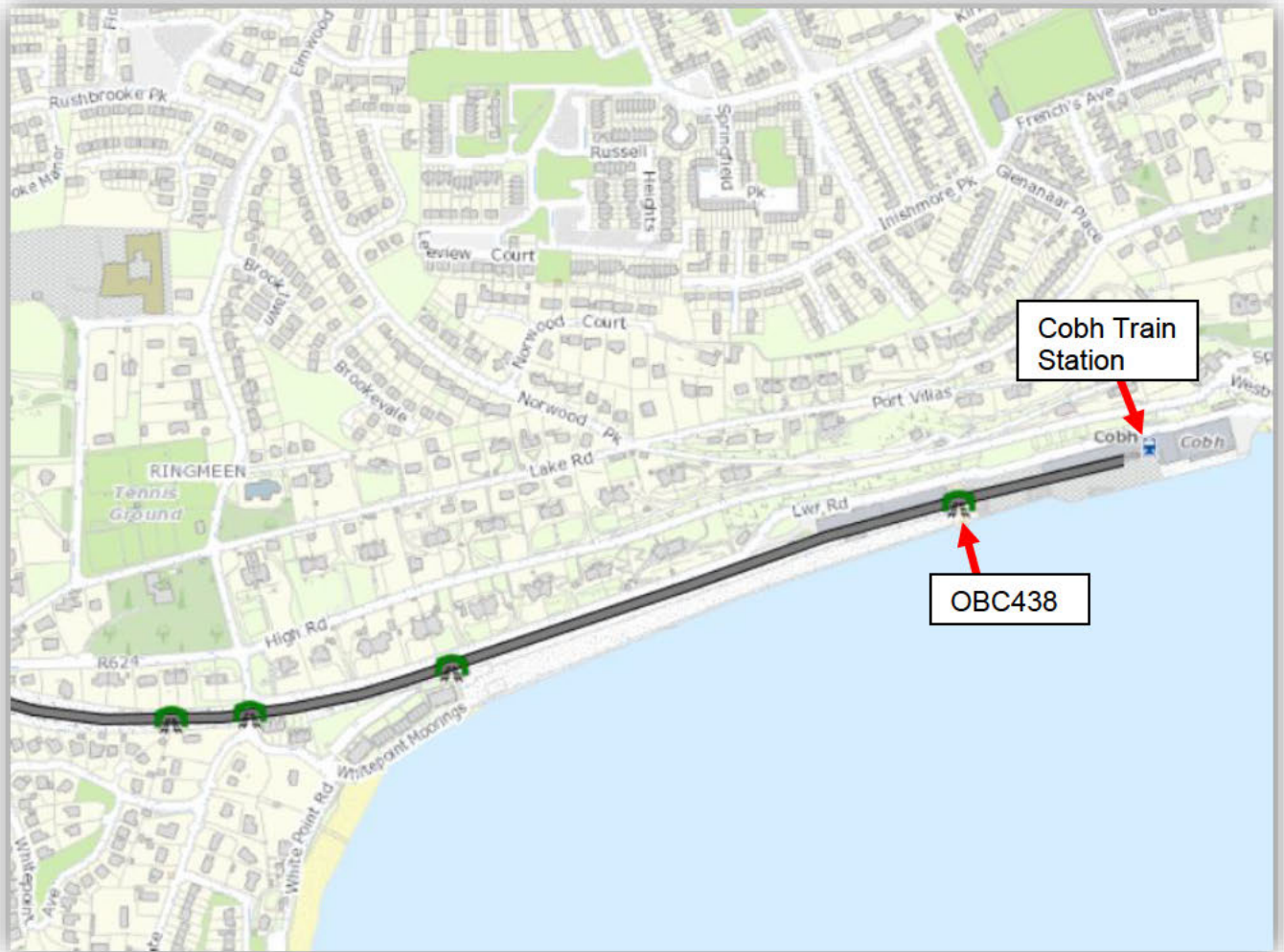
Service providers – Not applicable for this project

8.2 *Other Information to be read in Conjunction with Preliminary health and Safety Plan*

- Construction Stage Health and Safety Plan
- Method Statements
- I-PWY-1490 Mobile Gang Work Instruction
- Construction Regulation Folders

9 SITE LOCATION AND YARD LAYOUT PLAN

Site Location



Access Points

- Access to railway via approved Irish Rail Access Points **ONLY**
- Access to lands bounding the railway will be by agreement with relevant landowner
- Access Point A (APCU-176-1048) is pedestrian & large plant/machinery



10 PHOTOGRAPHS

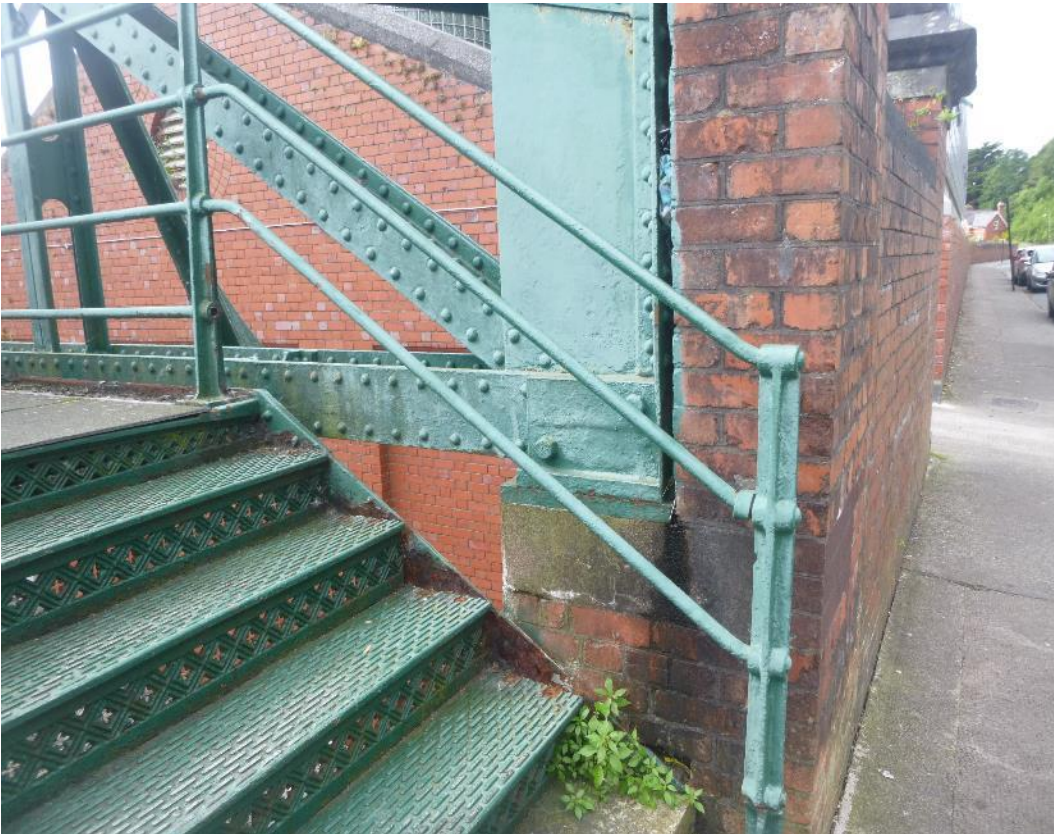
OBC438



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



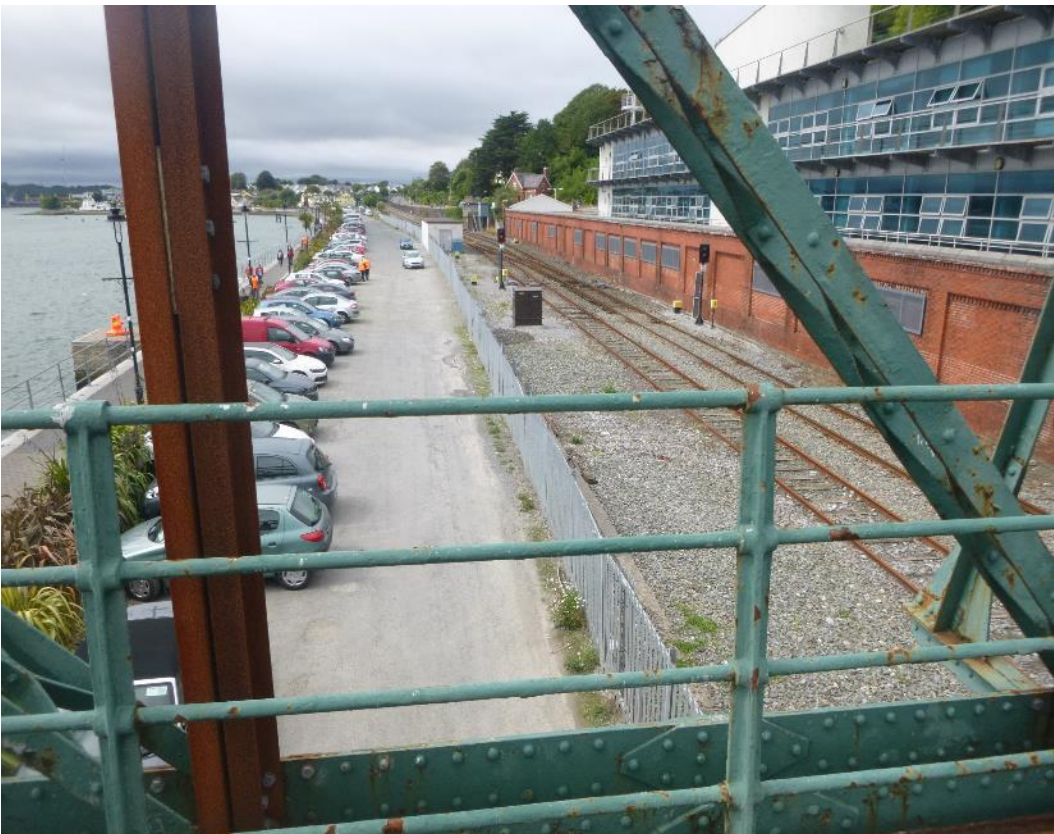
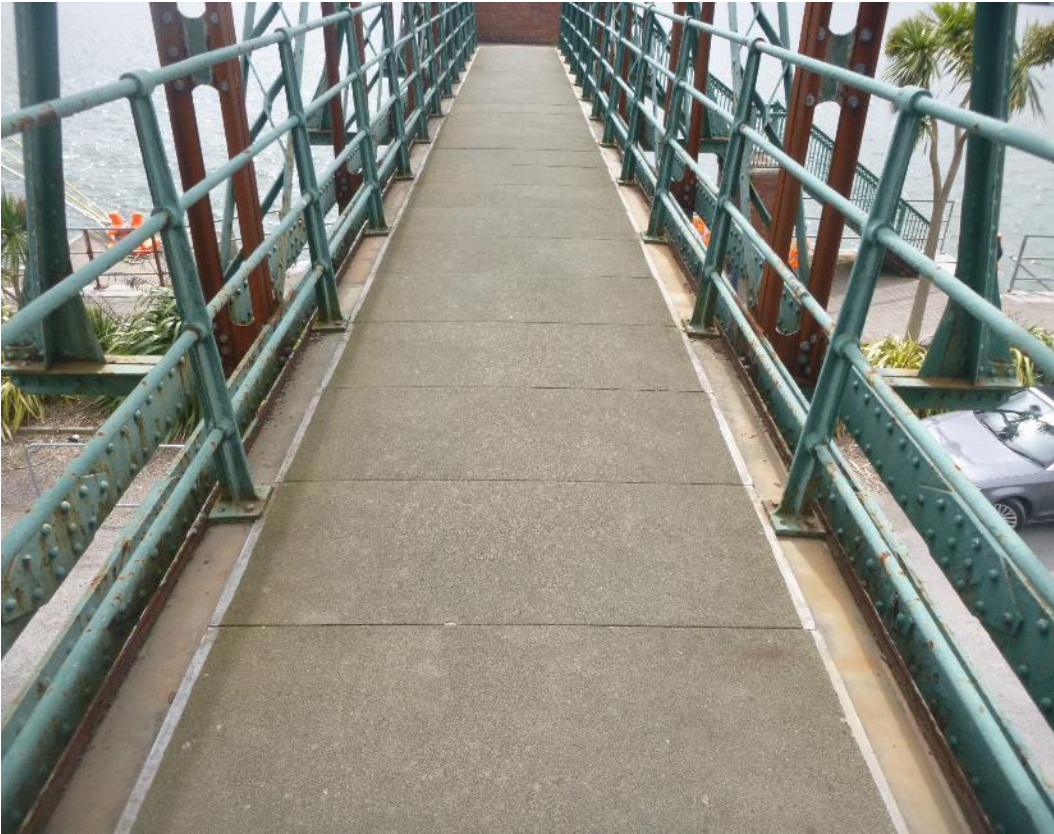
Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



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OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



11 APPENDIX A



Safety, Health and Welfare at Work (Construction) Regulations 2013

Approved Form (AF 1)

Regulation 10

Particulars to be notified by the Client to the Health and Safety Authority before the design process begins

NOTE:

This form is to be used to notify of any project covered by the Safety, Health and Welfare (Construction) Regulations 2013, which will last longer than 30 days or 500 person days. It can also be used to provide changes in appointments since initial notification of projects.

Any day on which construction work is carried out (including holidays and weekends) should be counted, even if the work on that day is of short duration. A person day is one individual, including supervisors and specialists, carrying out construction work for one normal working shift.

This Notification is to be made by Registered Post to HSA, Metropolitan Building, James Joyce Street, Dublin 1; or as may be directed by the Authority.

- 1 Client:** Provide name, full address, telephone number and e-mail address for the Client. If more than one Client, please attach details of all Clients on a separate sheet.

Name: Iarnród Éireann
Address: Engineering & New Works Building,
Inchicore,
Dublin 8
Telephone: 01 703 4228 E-Mail: info@irishrail.ie

- 2 Project Supervisor Design Process and Health & Safety Coordinator:** Provide name, full address, telephone number and e-mail address for the PSDP and Health & Safety Coordinator for the Design Process.

PSDP Name: Iarnród Éireann H&S C. Name:
Address: Engineering & New Works Building,
Inchicore,
Dublin 8 Address:
Telephone: 01 703 4228 Telephone:
E-Mail: info@irishrail.ie E-Mail:

- 3 Project Supervisor Construction Stage and Health & Safety Coordinator, if known:** Provide name, full address, telephone number and e-mail address for the PSCS and Health & Safety Coordinator for the Construction Stage.

PSCS Name: H&S C. Name:
Address: Address:
Telephone: Telephone:
E-Mail: E-Mail:

- 4 Information on Construction Work:** Please provide your details of the following.

Description of Project: The title of the project is "OBC438 Bridge Painting" OBC438 is located on the Cork to Cobh line at 176miles 1208yards

Exact Address of Construction Site: OBC438 Lower Rd,
Ringmeen,
Cobh,
Co. Cork

Signed: [Redacted] or on behalf of the Client

Position: Safety Executive Date: 26-April-2018

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork

12 APPENDIX B

Príomhinnealtóir Bonneagar, Iarnród Éireann Inse Chór, Baile Átha Cliath 8.

Chief Civil Engineer, Iarnrod Eireann, Inchicore, Dublin 8

T 01 703 4201 [REDACTED] www.irishrail.ie



Iarnród Éireann,
Engineering & New Works Building,
Inchicore,
Dublin 8.

26th of April 2018

Re: Appointment of Project Supervisor for the Design Process for OBC438 Bridge Painting Works on the Cork to Cobh line at 176miles 1208yards

Dear Sir/Madam,

The Client, being Iarnród Éireann, wishes to confirm the appointment of Iarnród Éireann, as Project Supervisor for the Design Process for the Project and to confirm the appointment and acceptance of the role in accordance with Section 17 of the Safety Health and Welfare at Work Act and Part 2 of the 2013 Construction Regulations.

In addition, it is confirmed and agreed that, Iarnród Éireann, undertakes that they are competent to and shall perform the duties of Project Supervisor appointed for the Design Process as required by the Regulations and in accordance with Section 17 of the 2005 Act, the duty to ensure, in so far as is reasonably practicable, that the works are constructed and can be maintained so as to be safe and without risk to health.

Yours faithfully,

Signed:

[REDACTED] (by or on behalf of)
The Client,
Iarnród Éireann

Date: 26/04/18

Preliminary Health & Safety Plan
OBC438 Bridge Painting, Lower Road, Ringmeen, Cobh, Co. Cork



Project Supervisor Design Process (PSDP) Appointment Acceptance Form

Project: OBC438 Bridge Painting Works on the Cork to Cobh line at
176miles 1208yards


Client: Iarnród Éireann

Name of PSDP: Iarnród Éireann

We declare that we are competent to carry out the duties of Project Supervisor Design Process on the above project and to perform the duties of the PSDP as detailed in the Safety, Health and Welfare at Work (Construction) Regulations 2013.

We hereby declare our acceptance of the conditions and appointment as Project Supervisor Design Process on the above contract.

Signed:


PSDP,
Iarnród Éireann

(by or on behalf of)

Date:

26/04/18.

Rates of Pay and Conditions of Employment Certificate

To:	<i>The Employer</i>	
	<i>Address of Employer</i>	
	<i>For the attention of</i>	
Date:		

From:	<i>The Contractor's Representative</i>	
--------------	--	--

Regarding:	<i>The Contract</i>	7109-24 Division 17 Rural/Urban Fencing	
	<i>Period of interim statement</i>	From	To

A Dhaoine Uaisle

We refer to the above Contract.

Terms defined in the Conditions of the Contract have the same meaning in this certificate.

The Contractor certifies that, in respect of the work to which the interim statement referred to above relates, clause 5.3 of the Contract has been observed by the Contractor and the employers of all work persons on the Site. This certification includes, but is not limited to, the following:

- the rates of pay and the conditions of employment (including in relation to pension contributions) of each work person comply with all applicable statutory provisions, and those rates and conditions have been no less favourable than those for the relevant category of work person in any employment agreements registered under the Industrial Relations Acts 1946 to 2004
- all wages and other money due to each work person have been paid in accordance with the Payment of Wages Act 1991 and have not been more than 1 month in arrears or unpaid
- payments due to be paid on behalf of each work person (including pension contributions, where applicable) have been paid
- all pension contributions and other amounts due to be paid on behalf of each work person, have been paid
- all deductions from payments to work persons required by law have been made and paid on, as required by Law
- in relation to the employment of work persons on the Site, the Safety, Health and Welfare at Work Act, 2005 and all employment law including the Employment Equality Act 1998, the Industrial Relations Acts 1946 to 2004, the National Minimum Wage Act 2000, regulations, codes of practices, legally binding determinations of the Labour Court and registered employment agreements under those Laws have been observed.

Is mise, le meas

Signed by

<i>Name of Contractor</i>	
<i>Signature of Contractor i.e Contractor's Representative</i>	

Tender and Schedule

for

The Project 7109-24 Division 17 Rural/Urban Fencing

using the

Short Public Works Contract

Office of Government Procurement

Short Public Works Contract
Document Reference FTS6 v.1.4
30 June 2016

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Published by: Office of Government Procurement
Department of Public Expenditure and Reform
Government Buildings
Upper Merrion Street
Dublin 2.

FORM OF TENDER

To	<i>The Employer</i>	Iarnród Éireann
	<i>Address of Employer</i>	Engineering and New Works Building, Inchicore, Dublin 8, DO8 K6Y3.
	<i>For the attention of¹</i>	██████████
	<i>Regarding²</i>	7109-24 Division 17 Rural/Urban Fencing
Date		

A Dhaoine Uaisle

We have examined and understand the Conditions of the *Short Public Works Contract* and the documents listed in the attached Schedule. We offer to complete the Works on the terms of and in conformity with that contract for the lump sum of

euro ³ excluding all VAT ⁴ ,
--

as adjusted in accordance with the Contract.

If included in the attached Schedule or elsewhere in the attached documents, we also offer to accept appointment as project supervisor for the construction stage on terms required by the Contract if appointed as Contractor for the Works.

In consideration of you providing us with the contract documents, we agree not to withdraw this offer until the latest of:

- (a) 183⁵ days after the end of the last day for submission of this Tender
- (b) expiry of at least 21 days written notice to terminate this Tender given by us, which may not issue prior to the expiry of the period at (a)

Your acceptance of this Tender within that time will result in the Contract being formed between us.

We agree that you are not bound to accept the lowest or any tender you may receive.

Is sinne, le meas

¹ Insert name of contact person identified in tender documents

² Insert name of Project

³ Lump sum in words

⁴ Please refer to www.revenue.ie for details of current rates of VAT

⁵ If not otherwise specified, read as 180 days

Tender & Schedule for Public Works Short Form of Contract

Signature of authorised person

Name in capitals

Title

On behalf of

Tenderer's name in full

Postal address

In the presence of

Name of witness

Signature of witness

Witness's occupation

Witness's address

TENDER ACCEPTED

Signed on behalf of the Employer⁶

Signature of an officer authorised to sign contracts on behalf of the Employer

Name in capitals

Title

Date

⁶ To be completed and signed only after all award procedures have been completed. Acceptance of the tender will result in a binding contract.

SCHEDULE

Clause

1.1	Employer's [REDACTED]	[REDACTED]
	Time for Completion	5 days, starting on the day this Contract comes into effect or as stated in another contract document
1.3	Other documents in the Contract	Volume A - Works Requirements Volume B - Form of Tender & Schedule Volume D - Short Public Works Contract (PW-CF6 v1.12)
2.6	Rate of liquidated damages	€ per day
2.8	Weather station	Cork Airport Weather Station
3.15	Defects Certificate issued	Between 12 and 13 months after the date on which the Works are certified substantially complete.
4.1	Interim payment	Monthly 90% of the value of Works completed and materials delivered to the Site with title vested in the Employer to the Employer's satisfaction
	Percentage of Price to be paid after Employer certifies the Works are substantially complete	95%
4.2, 4.3	Time for payment	10 working days after Employer receives invoice for certified sum
10.3	Minimum indemnity limit for public liability insurance.	€5,000 for any one event. (Limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution.)
	Minimum indemnity limit for employer's liability insurance	€13,000 for any one event
10.4	Maximum levels of excess for	
	■ insurance of the Works and goods and materials for the Works	€
	■ public liability (property damage)	€6,500 ⁷
	■ public liability (death, illness or injury)	no excess
	■ employer's liability	€6,500 ⁸
12.3	Percentage of the unpaid portion of the Price to be paid if Employer terminates, clause 12. does not apply, and Employer appoints another contractor within 12 months	4%

⁷ If no amount stated, €6,500 applies

⁸ If no amount stated, €6,500 applies

Tender & Schedule for Public Works Short Form of Contract

14 Project Supervisor Contractor is to be appointed as Project Supervisor for the Construction Stage.

15.2, Body to appoint conciliator, if not agreed The Royal Institute of the Architects of Ireland

15.3 Person to appoint adjudicator, if not agreed Chairperson of the Panel of Adjudicators

NOTE Shaded text (like this) may be amended

Short Public Works Contract

Conditions

Office of Government Procurement

SHORT PUBLIC WORKS CONTRACT

Short Public Works Contract
Document Reference PW-CF6 v1.12
5 June 2019

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Published by: Office of Government Procurement
Department of Public Expenditure and Reform
Government Buildings
Upper Merrion Street
Dublin 2

CONDITIONS

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CONDITIONS

1. The Contract

1.1 In this Contract

- The **Assigned Certifier** is the person so assigned by the Employer to certify compliance with the relevant requirements under the Building Control Regulations.
- The **Building Control Regulations** are the Building Control Regulations 1997-2014 and any amendments thereto to the extent that they apply to the Works.
- **Compensation Event** is defined in clause 4.5.
- The **Contractor** is as named in the accepted tender.
- The **Contractor's Personnel** are the Contractor's
 - representative and supervisor
 - subcontractors and suppliers of any tier and
 - employees and other persons working for the Contractor, subcontractors or suppliers of any tier or otherwise assisting the Contractor for the Works.
- **Data Protection Law** is all applicable data protection Law, including the General Data Protection Regulation (Regulation (EU) 2016/679).
- The **Defects Certificate** is a certificate issued by the Employer's Representative under clause 3.15 and may include a list of parts of the Works that do not comply with this Contract.
- The **Employer** is as named in the accepted tender.
- The **Employer's Representative** is named in the Schedule or an architect, engineer, surveyor or other person otherwise notified by the Employer according to clause 5.1.
- **Personal Data** shall have the meaning set out in the General Data Protection Regulation in respect of any such personal data processed on behalf of the Employer.
- The **Price** is as stated in the accepted tender, as may be adjusted according to this Contract.
- The **Site** is the place where the Contractor is to construct the Works and anywhere else this Contract says is part of the Site.
- The **Time for Completion** is the period stated in the Schedule or, if not stated there, in another Contract document, in either case as may be extended under clause 2.7.
- The **Works** are what the Contractor is to complete and hand over to the Employer, as described in this Contract.

1.2 Unless the context indicates otherwise

- references to clause numbers in the Conditions or the Schedule are to the clauses of the Conditions
- words in the singular also mean the plural and the other way around
- words in a gender also mean other genders
- **person** includes incorporated and unincorporated organisations
- references to a **month** are to a calendar month and to a **day** are to a calendar day
- references to a **working day** are to a day other than Saturday, Sunday, a public holiday established under the Organisation of Working Time Act 1997, or Good Friday.
- references to **the parties** are to the Employer and the Contractor
- references to a law include amendments, replacements and re-enactments
- **substantially complete** and **substantial completion** mean that
 - the Works have reached a stage of completion that the Employer can take them over and use them and
 - if there are any defects, in the Employer's Representative's opinion both (a) the Contractor has good reason for not having rectified them already and (b) neither the defects nor their rectification are likely to prevent the Works from being used conveniently

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- and safely and
 - any other requirements for substantial completion in this Contract have been met and
 - the details in the Certificate of Compliance on Completion of the Works or a part thereof have been included on the Register maintained under Part IV of the Building Control Regulations.
- 1.3 This Contract is the entire agreement between the parties about the Works and consists of
 - these Conditions, the form of tender and acceptance, and the Schedule and
 - the documents listed in the Schedule as part of this Contract.
- 1.4 If there is a discrepancy between these Conditions and other documents in this Contract, these Conditions prevail. If there is a pricing document in this Contract, and there is a discrepancy between the pricing document and other documents in this Contract, the other documents prevail. If a party discovers a discrepancy within or between the documents describing the Works, it must notify the other as soon as practicable, and the Employer's Representative will resolve the discrepancy by an instruction.
- 1.5 This Contract comes into effect when the Employer sends the Contractor written acceptance of the Contractor's tender for the Works.
- 1.6 The Contractor must construct and complete the Works at its own expense, complying with this Contract, the Employer's Representative's written instructions and the law.
- 1.7 The Contractor may not assign this Contract or any part of it without the Employer's consent.
- 1.8 No rule of legal interpretation applies to the disadvantage of a party on the basis that the party provided this Contract or any of it or that a term of this Contract is for the party's benefit.
- 1.9 The Contractor agrees that:
 - (a) the Contractor shall process Personal Data only in accordance with the Contract and Data Protection Law;
 - (b) the Contractor shall ensure persons authorised by the Contractor to process Personal Data are subject to confidentiality obligations as provided under Data Protection Law;
 - (c) the Contractor must take appropriate technical and organisational security measures as are required to comply with Data Protection Law;
 - (d) the Contractor may engage sub-processors to perform processing on its behalf, provided it gives prior written notice and informs the Employer of any changes concerning the status of such sub-processors and allows the Employer reasonable opportunity to object to such changes;
 - (e) where any sub-processor of the Contractor will be processing Personal Data on behalf of the Employer, the Contractor shall ensure that a written contract exists between the Contractor and the sub-processor containing clauses equivalent to those imposed on the Contractor by the Contract;
 - (f) the Contractor shall delete or return all Personal Data as directed by the Employer's Representative and not later than when the Contractor completes its contractual duties relating to such data processing;
 - (g) the Contractor shall: (i) make available to the Employer all information necessary to demonstrate compliance with this Clause; and (ii) allow for and assist with audits, including inspections, conducted by or on behalf of the Employer, in order to ensure such compliance, provided however that the Employer shall be entitled, at its discretion, to accept adherence by the Contractor to an approved code of conduct or an approved certification mechanism to aid demonstration by the Contractor that it is compliant;
 - (h) the Contractor shall inform the Employer's Representative immediately if, in its opinion, it receives an direction which infringes Data Protection Law;

- (i) the Contractor shall notify the Employer's Representative within 24 hours of becoming aware of any act or omission [including breach of security] leading to the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of or access to Personal Data transmitted, stored or otherwise processed and shall provide co-operation and assistance to the Employer as is required to mitigate the effects of, and comply with applicable reporting obligations in respect of, such act or omission; and
- (j) no Personal Data shall be transferred outside the European Economic Area by the Contractor or any of its agents or sub-processors without the prior written consent of the Employer, and the Contractor shall comply with Data Protection Law in respect of Personal Data transfers outside the European Economic Area which the Employer has consented to.

2 The Site, starting and completing the Works

- 2.1 The Employer must allow the Contractor to occupy and use the Site within 5 working days after this Contract comes into effect, or any other date stated in this Contract, or (in either case) a later date by which the Contractor has demonstrated to the Employer that the insurances required by this Contract are in effect. The Contractor is not entitled to exclusive use of the Site. The Contractor's right to occupy and use the Site is solely for the purpose of constructing the Works. Other limitations on the Contractor's right to occupy and use the Site may be included in this Contract.
- 2.2 The Employer may arrange for work to be done on the Site by the Employer's personnel or other contractors.
- 2.3 The Contractor must start constructing the Works on the Site within 5 working days after the Employer allows the Contractor to occupy and use the Site, or another date agreed between the parties, and must substantially complete the Works within the Time for Completion.
- 2.4 Within 5 working days after the Contractor notifies the Employer's Representative that the Works are substantially complete, the Employer's Representative will give the Contractor a certificate stating the date the Works were substantially complete, or notify the Contractor that the Employer's Representative does not consider the Works substantially complete, with reasons. The certificate does not relieve the Contractor of any responsibility or liability. The certificate may include a list of work that remains to be done.
- 2.5 After the Employer's Representative certifies the date that the Works are substantially complete, the Contractor must complete any outstanding work promptly after the Employer's Representative so instructs. In doing so (and generally in performing this Contract after substantial completion of the Works) the Contractor must cause as little disruption as possible to occupiers and users of the Works. If the Contractor fails to comply with the instruction promptly and in compliance with this clause, the Employer may do the outstanding work itself, or have it done by others, and the Contractor must pay or allow the Employer's cost of the work.
- 2.6 If the Contractor does not substantially complete the Works within the Time for Completion, the Contractor must pay or allow the Employer liquidated damages at the rate in the Schedule from the day after the last day of the Time for Completion until the day that the Works are substantially complete.
- 2.7 The Employer's Representative will extend the Time for Completion by an amount corresponding to any delay to the substantial completion of the Works caused by any of the following and not resulting from the Contractor's or Contractor's Personnel's acts or omissions (except as an unavoidable result of complying with this Contract) or the Contractor's breach of this Contract:
 - Compensation Events
 - loss of or damage to the Works
 - a weather event
 - strikes or lock outs not confined to the Contractor's Personnel
 - order or other act of a court or other public authorityfailure or delay of a person other than the Contractor or Contractor's Personnel to do what this Contract says they will do.

2.8 A **weather measurement** for a month means each of the following:

- the number of days with rainfall exceeding 10 millimetres
- the number of days with minimum air temperature less than 0 degrees Celsius and
- the number of days with maximum mean 10 minute wind speed exceeding 15 metres per second as recorded at the weather station named in the Schedule.

A **weather event** is when a weather measurement is recorded at the weather station named in the Schedule for a month during the Time for Completion that is shown to exceed the 90th percentile of past weather measurements for the corresponding month of the year at the same station, as determined by Met Éireann and published most recently before the day 10 days before the final date for submission of tenders for the Works.

If no weather station is named in the Schedule, the Met Éireann station nearest the Site is used. If the station named in the Schedule, or the nearest one, does not record the weather measurements, the station nearest to the Site that records the weather measurement is used.

A weather event also means any other event stated in the Schedule to be a weather event.

An extension of time for a weather event never exceeds the number of days in the relevant month by which the weather measurement exceeds the 90th percentile (as so determined).

2.9 The Contractor must ensure that goods and materials for the Works selected or designed by the Contractor (including Contractor's Personnel) are suitable for their intended purpose in the Works and shall provide the certification necessary to comply with the Building Control Regulations.

3 The Works

- 3.1 The Contractor is responsible for the safety and stability of the Works, and of all operations on the Site connected with the Works, including temporary works.
- 3.2 The Contractor must construct the Works according to good practice, and must only use goods and materials that are of good quality.
- 3.3 From when the Employer allows the Contractor access to the Site, the Contractor must
- as far as practicable, secure the Site and keep off the Site persons not entitled to be there
 - keep the Site in good order and free from unnecessary obstructions
 - as far as practicable, secure the safety of persons on the Site and protect them and users, owners and nearby areas from hazards and interference resulting from the Works and
 - as far as practicable, ensure that the Contractor, the Contractor's Personnel and the Works do not unnecessarily or improperly
 - cause a nuisance or inconvenience to the public or users, owners, occupiers of land, roads, or footpaths on or near the Site, or
 - interfere with the use of land, roads, or footpaths.
- 3.4 Until the Employer's Representative issues the Defects Certificate, if the Employer's Representative gives the Contractor a written instruction in relation to the Works, the Contractor must implement the instruction. This can include an instruction changing the Works, or an instruction imposing or changing restrictions on how the Works are to be constructed.
- 3.5 The Employer's Representative will give the Contractor instructions that are necessary for the Contractor to construct the Works if the Contractor asks for them in writing. Such an instruction must be given in reasonable time, taking into account when the Contractor asked for it and when the Contractor needs it to avoid delay to the Works.
- 3.6 The Contractor must set out the Works by reference to the points, lines, and levels in this Contract and in written instructions from the Employer's Representative. Before setting out the Works, the Contractor must make all reasonable efforts to verify the accuracy of these points, lines, and levels.

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- 3.7 Until the Employer's Representative issues the Defects Certificate, the Contractor must ensure that the Employer, the Employer's Representative, the Assigned Certifier, and persons authorised by them, are able to have access to the Site and other places where the Works are being constructed or goods or materials for the Works are being produced, stored, extracted, or prepared, and there to inspect, test, and observe the Works, goods, materials, and activities. The Contractor must give the Employer's Representative the information the Employer's Representative requires or requests to do this.
- 3.8 The Contractor must inform the Employer's Representative and the Assigned Certifier in good time before any part of the Works is covered or goods or materials for the Works that are to be inspected are packed or made difficult or impossible to inspect, and in each case give the Employer's Representative and the Assigned Certifier a proper opportunity to inspect them.
- 3.9 Any time until the Employer's Representative issues the Defects Certificate, the Employer's Representative may instruct the Contractor to uncover, dismantle, re-cover, or re-erect work; test, inspect, or provide facilities for testing and inspection; or any combination of these.
- 3.10 Any time until the Employer's Representative issues the Defects Certificate, the Employer's Representative may instruct the Contractor to remove from the Site and replace any Works or goods or materials for the Works that do not comply with this Contract or otherwise to put right (in a manner instructed by the Employer's Representative) any part of the Works that do not comply with this Contract. If the Contractor fails to comply with the instruction promptly, the Employer may do the work itself, or have it done by others, and the Contractor must pay or allow the Employer's cost of the work.
- 3.11 Until the Works are substantially complete, the Contractor must not remove from the Site any Works, goods or materials for the Works, or plant to be used for the Works, without the Employer's Representative's consent
- 3.12 The Employer's Representative may instruct the Contractor to suspend all or part of the Works. The Contractor must, during the suspension, protect, store, and secure the affected Works and maintain the insurances required by this Contract. The Contractor must resume the Works promptly after the Employer's Representative so instructs. If the suspension did not result from a breach of the Contractor's obligations and lasts for longer than 3 months, the Contractor may ask the Employer's Representative for permission to proceed; and if the Employer's Representative does not give permission within 20 working days of being asked
- if the suspension affected all the Works, the Employer will be considered to have terminated the Contractor's obligation to complete the Works and
 - if the suspension affected part of the Works, the Employer will be considered to have given an instruction to omit that part of the Works.
- 3.13 If the Contractor discovers fossils, coins, antiquities, monuments, or other items of value or of archaeological or geological interest or human remains on the Site, the Contractor must not disturb them, and must take all necessary steps to preserve them, and promptly notify the Employer's Representative and comply with the Employer's Representative's instructions. As between the parties, these items are the Employer's property.
- 3.14 The Contractor, and not the Employer, is responsible for the suitability and availability of access routes to and through the Site, and any required maintenance and upgrading of them, and charges for their use, except when this Contract states otherwise. The Contractor is also responsible for obtaining and providing all facilities, power, water, and other services it requires to construct the Works, other than those this Contract requires the Employer to provide.
- 3.15 In the time stated in the Schedule, the Employer's Representative will issue to the Contractor the Defects Certificate. But the Employer's Representative may defer issuing the Defects Certificate until the Contractor has completed outstanding work, including under clauses 3.9 or 3.10. Neither the Defects Certificate nor its deferral relieves the Contractor of any obligations.

4 The Price and payment

- 4.1 For completing the Works according to this Contract the Employer must pay the Contractor the Price, in instalments as follows:
- interim payments on account as Scheduled, less payments already made and any deductions permitted by this Contract
 - after the Employer's Representative certifies the date the Works were substantially complete, the percentage of the Price stated in the Schedule, less (a) payments already made, (b) the value of any remaining work, and (c) other deductions permitted by this Contract
 - after the Employer's Representative issues the Defects Certificate, the unpaid balance of the Price, less deductions permitted by this Contract.
- 4.2 When a payment is to be made, not later than 5 days after the date agreed between the parties to be the payment claim date the Contractor shall give the Employer's Representative a payment claim notice, in the form of a detailed statement of the amount to be paid. Within 14 days of receiving the payment claim notice, the Employer's Representative shall issue a response to the payment claim notice, to the Contractor, in the form of a certificate, setting out the amount the Employer's Representative considers the Contractor should be paid, with reasons for any difference between the amount in the certificate and the Contractor's statement. If the certificate states that an amount is due to the Contractor, the Contractor shall send an invoice to the Employer for that sum. The Employer shall pay the amount due on the invoice within the period stated in the Schedule.
- 4.3 The Contractor shall give a penultimate statement within 30 days after the Employer's Representative certifies the date the Works were substantially complete, and a final statement of all amounts due under this Contract within 30 days after the Employer's Representative issues the Defects Certificate. The final statement shall be the same as the penultimate statement, except for amounts due for occurrences after the date of the penultimate statement. Within 14 days of receiving a statement, the Employer's Representative will give the Contractor a certificate setting out the amount the Employer's Representative considers the Contractor should be paid, with reasons for any difference between the amount in the certificate and the Contractor's statement. If the certificate states that an amount is due to the Contractor, the Contractor shall send an invoice to the Employer for that sum. The Employer shall pay the amount due on the invoice within the period stated in the Schedule.
- 4.4 The Price will change only as expressly provided in this Contract. The Contractor's cost of performing this Contract is all at the Contractor's risk except to the extent that the Price is to be increased under this Contract.
- 4.5 In this Contract, **Compensation Event** means any of the following:
- the Employer's Representative gives the Contractor an instruction
 - that changes the Works or constraints in this Contract on how the Works are to be constructed
 - to search for defects or their cause under clause 3.9 and no defect is found, and the search was not required because of a failure by the Contractor to comply with this Contract
 - to suspend work
 - the Employer's Representative does not give an instruction when required under clause 3.5
 - other contractors working on the Site under clause 2.2 impede the Contractor and this was unforeseeable and not in accordance with this Contract
 - breach of this Contract by the Employer
 - the Employer instructs the Contractor to rectify loss or damage at the Employer's risk
 - the Contractor encounters on the Site unforeseeable ground conditions or unforeseeable man-made obstructions in the ground
 - owners of utility apparatus on the Site do not relocate or disconnect their apparatus as stated in this Contract, when the Contractor has complied with their procedures and the procedures in this Contract, and the failure is unforeseeable.

In the above definition, something is **unforeseeable** if an experienced Contractor tendering for

the Works could not have reasonably foreseen it, having inspected the Site and taking into account all the information provided by the Employer.

- 4.6 If a Compensation Event happens, the Employer's Representative will adjust the Price according to this clause. If the adjustment is an increase the Price can be increased only to the extent that all of the following apply:
- The Compensation Event is not a result of an act or omission of the Contractor or Contractor's Personnel, or the Contractor's breach of this Contract.
 - The Contractor makes all reasonable efforts to avoid and minimise the adverse effects of the Compensation Event.
 - The Contractor has complied with clause 4.8 in full.
 - This Contract does not provide otherwise.

The amount of the adjustment will be the amount of an accepted or agreed quotation under clause 4.7, if a quotation is agreed. If there is no agreed quotation, the Employer's Representative will assess the amount of any adjustment using the rates and prices in this Contract, or on the basis of those rates and prices, if there are any and they are suitable, and if not by assessing the effect of the change on the Contractor's cost of constructing the Works. The Contractor's right to an adjustment under this clause is subject to clause 4.8, but the Employer's Representative may act on its own initiative.

- 4.7 If the Employer's Representative so requests, the Contractor must give the Employer's Representative, within 10 working days of receiving the request, a quotation for any change to the Price and the Time for Completion as a result of a proposed instruction. If the Employer's Representative accepts the quotation, it may issue the instruction, and adjust the Price and the Time for Completion to match the accepted quotation. If the Employer's Representative does not accept the quotation, or it is not given, and agreement is not reached, the Employer's Representative may either
- issue the instruction and assess any adjustment to the Time for Completion and the Price under clauses 2.7 and 4.6 respectively or
 - if the instruction has not yet been given, decide not to proceed with it, unless it is required under clause 3.5.
- 4.8 If the Contractor considers that under this Contract there should be an adjustment of the Price, or that it has any other entitlement against the Employer under or in relation to this Contract, the Contractor must give the Employer's Representative notice of the claim within 10 working days of when the Contractor became, or should have become, aware of it, and full details of the circumstances and the amount claimed within a further 15 working days after giving the notice. If the Contractor does not give the notice and details according to and within the time required by this clause the Contractor is not entitled to an increase in the Price and the Employer is released from all liability to the Contractor in relation to the matter (unless the Contractor's claim is about an instruction for which the Contractor was requested to and gave a proposal under clause 4.7).
- 4.9 If the Employer or the Employer's Representative considers that under this Contract there should be an adjustment to the Price, it must, as soon as practicable, give notice and full details of the circumstance and the amount claimed to the other and to the Contractor. The Contractor may, within 10 working days after receiving the notice, give a response to the Employer's Representative and the Employer's Representative may adjust the Price in accordance with this Contract.
- 4.10 If a payment is not made within the time allowed in this Contract, it carries interest at the rate in the European Communities (Late Payment in Commercial Transactions) Regulations 2012.
- 4.11 The Contractor's completed form of tender states whether, and to what extent, the Price includes VAT
- 4.12 To the extent that the Price excludes VAT, the Employer must pay the Contractor (or the Revenue Commissioners when required by Law or their practice) any VAT arising on the supply under this Contract in addition to the Price.

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- 4.13 To the extent that the Price includes VAT,
- (1) adjustments to the Price shall be on a net-of-VAT basis, and the appropriate sum for VAT shall be added or subtracted and
 - (2) any VAT included in the Price that the Employer is required to pay the Revenue Commissioners (by Law or their practice) shall be deducted from the Price.
- 4.14 So therefore, if the Price includes VAT chargeable at the standard rate only, then the Employer shall pay the Contractor (or the Revenue Commissioners when required by Law or their practice).
- The Price, including the VAT chargeable at the standard rate that is included in the Price and also
 - Any VAT arising on the supply under this Contract that is chargeable at another rate.
- In this Contract 'standard rate' means the VAT rate specified in section 46(1)(a) of the Value-Added Tax Consolidation Act, 2010.
- 4.15 Amounts in this Contract other than the Price exclude VAT, unless otherwise stated
- 4.16 For each payment the Contractor must give the Employer an invoice complying with section 66 of the Value-Added Tax Consolidation Act, 2010
- 4.17 The Price will be adjusted by the amount of any increase or decrease in the Contractor's cost of performing this Contract as a result of a change in law after the date of this Contract that changes customs or excise duties, requirements for licence to import or export any commodity or PRSI, except for when this Contract says otherwise.
- 4.18 The Employer may withhold and deduct any amount on account of tax required by law or the practice of the Revenue Commissioners
- 4.19 The Employer may deduct from amounts due to the Contractor any amount that the Employer considers is due, or likely to become due, to the Employer from the Contractor under this Contract or another contract.

5 Representation and communications

- 5.1 If the Employer's Representative is not named in the Schedule, the Employer must, promptly after the date of this Contract, appoint the Employer's Representative and notify the Contractor. The Employer must notify the Contractor of any limitations agreed with the Employer's Representative on how the Employer's Representative's functions under this Contract may be exercised. The Employer may change the Employer's Representative, and must notify the Contractor.
- 5.2 The Contractor must appoint a representative, with authority to act on the Contractor's behalf in all matters concerning the Works. The Contractor must also appoint a competent supervisor of all the Contractor's activities on the Site, who may be the same person as the Contractor's representative. The Contractor is considered to be aware of matters (including communications and instructions) of which its representative or supervisor is aware. The Employer's Representative will send the Contractor's representative copies of any instructions given to the Contractor's supervisor. If the Contractor's representative or supervisor dies, or becomes no longer able to perform her duties, or is no longer available to the Contractor, the Contractor must appoint a replacement. The Contractor must replace its representative or supervisor if the Employer's Representative so requires because of the representative's or supervisor's misconduct, negligence, or incompetence.
- 5.3 All communications provided for in this Contract must be in English, unless this Contract requires Irish, and in writing.

6 Contractor's Personnel

- 6.1 The Contractor must ensure that Contractor's Personnel are suitably qualified, trained, and experienced and are competent to carry out their tasks. The Contractor must ensure that Contractor's Personnel carry out their tasks in compliance with the Contractor's obligations under this Contract. The Contractor is liable for acts and omissions of Contractor's Personnel as if they were acts or omissions of the Contractor.
- 6.2 The Contractor must remove from the Works and the Site any Contractor's Personnel that the Employer's Representative instructs be removed on the basis of their negligence or incompetence or that their presence on the Site is not conducive to safety, health, or good order.
- 6.3 The Contractor may not subcontract the whole of the Works to one or more subcontractors. The Contractor may not subcontract part of the Works without the Employer's Representative's consent, unless the subcontracting is already provided for in this Contract.

7 Pay and conditions of employment of workers

- 7.1 The Contractor shall prominently exhibit copies of this clause 7 for the information of persons at the Site. In this clause **worker** means a person employed by, or otherwise working for, the Contractor or the Contractor's Personnel on or adjacent to the Site.
- 7.2 The Contractor shall ensure that the rates of pay and the conditions of employment, including pension contributions, comply with all applicable law and that those rates and conditions are at least as favourable as those for the relevant category of worker in any sectoral employment orders, employment regulation orders or registered employment agreements implemented in accordance with the Industrial Relations Acts 1946 to 2015 (including any such agreements registered prior to the Industrial Relations (Amendment) Act 2015, which have not otherwise been superseded). This applies to workers who are posted workers (within the meaning of Directive 96/71/EC of the European Parliament and the Council of the 16 December 1996 as amended by Directive 2014/67/EU concerning the posting of workers in the framework provision of services), except that the Contractor's obligation to make pension contributions in accordance with an applicable sectoral employment order, registered employment agreement or employment regulation order under the Industrial Relations Act 1946-2015 does not apply to posted workers who already contribute, or whose contributions are paid, to a supplementary pension scheme established in another member state of the European Union.
- 7.3 The Contractor must, and must ensure that the employers of all workers, do all of the following:
 - pay all wages and other money due to each worker
 - ensure that workers' wages are paid in accordance with the Payment of Wages Act 1991 and are never more than 1 month in arrears or unpaid
 - pay all pension contributions and other amounts due to be paid on behalf of each worker
 - make all deductions from payments to workers required by law, and pay them on as required by law
 - keep proper records (including time sheets, wage books and copies of pay slips) showing the wages and other sums paid to and the time worked by each worker, deductions from each worker's pay and their disposition, and pension and other contributions made in respect of each worker, and produce these records for inspection and copying by persons authorised by the Employer, whenever required by the Employer
 - produce other records relating to the rates of pay, deductions from pay, conditions of employment, rest periods and annual leave of workers for inspection and copying by persons authorised by the Employer, whenever required by the Employer
 - respect the right under law of workers to be members of trade unions
 - observe, in relation to the employment of workers on the Site, the Safety, Health and Welfare at Work Act 2005 to 2014, and all employment law including the Employment Equality Act 1998 to 2015, the Industrial Relations Acts 1946 to 2015, the National Minimum Wage Act 2000 and 2015 and regulations, codes of practice, legally binding determinations of the Labour Court and sectoral employment orders, employment regulation orders or registered employment agreements determined under those laws.

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- 7.4 If the Employer so requests, the Contractor must, within 5 working days after the request, give to the Employer a statement showing the amount of wages and other payments due at the date of the request to and in respect of each worker, or, in respect of workers, not employed by or otherwise working for the Contractor, ensure that their employer or the person for whom they are working does the same.
- 7.5 The Employer may seek information under the above provisions of this clause only for the purpose of ensuring the obligations described in this clause to workers have been properly discharged. All documents and records received under the above provisions of this clause will be returned to the person providing it or destroyed if the Employer is satisfied that the person providing the information has complied with legal obligations to workers.
- 7.6 If the Contractor has not complied with this clause, the Employer may (without limiting its other rights or remedies) estimate the amount that should have been paid to workers and contributions that should have been made on their behalf, and the Employer may withhold the estimated amount from any payment due to the Contractor, until the Employer is satisfied that the required amounts have been paid. If it has still not been paid by the time the Defects Certificate is issued, the estimated amount is deducted from the Price.
- 7.7 The Contractor must give the Employer's Representative with each statement under clause 4.2 and 4.3 a certificate that, for the work to which the statement relates, the Contractor has complied in full with this clause. If there is a form for the certificate attached to these Conditions, the certificate must be in that form. Payment due for the work covered by the statement will only be due if the certificate is given. If the certificate has still not been given by the time the Defects Certificate is issued, the portion (of the value of work that the Contractor has not given a certificate for) that the Employer determines is the labour portion is deducted from the Price.
- 7.8 If the Contractor does not comply with this clause, it must pay to the Employer any costs the Employer incurs in investigating and dealing with the non-compliance.
- 7.9 The Contractor shall ensure that in the event of an official of a trade union representing workers who are affected by a sectoral employment order, employment regulation order or which is a party to a registered employment agreement affecting workers having concerns in relation to the Contractor's or Contractor's Personnel's compliance with the order or agreement, that official will have access to a designated member of the Contractor's management who shall engage constructively to resolve all matters on this point.

8 Loss of and damage to the Works

- 8.1 The Employer bears the risk of loss of and damage to the Works resulting from
- war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds
 - contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
 - terrorism
 - use or occupation of the Works by the Employer except (a) as provided for in this Contract or (b) if the loss or damage is caused by the negligence of the Contractor or Contractor's Personnel, or the Contractor's breach of this Contract.
 - design of the Works by the Employer or by others for whom the Employer is responsible.

The Employer also bears the risk of loss of and damage to the Works after the Employer's Representative issues the certificate of the date they were substantially complete, unless the loss or damage is due to

- the Works not complying with this Contract
- an occurrence before substantial completion or
- activities of the Contractor or Contractor's Personnel.

The Contractor bears the risk of loss of and damage to the Works that does not result from an Employer risk listed above.

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- 8.2 The Contractor must promptly put right loss of or damage to the Works and goods or materials for the Works that is at the Contractor's risk. The Contractor is not entitled to payment for this except any insurance proceeds. If the insurance is insufficient, the Contractor must put the loss and damage right at its own expense.
- 8.3 If the Works are lost or damaged before the Defects Certificate is issued, and the loss or damage is at the Employer's risk, the Contractor must put it right if the Employer so instructs in writing.
- 8.4 Only if the Works involve alteration or extension of existing facilities owned by the Employer, the Employer bears the risk of loss of or damage to those facilities and their contents owned by the Employer caused by fire, storm, tempest, flood, bursting or overflowing of water tanks, apparatus or pipes, explosion, impact, aircraft, riot, civil commotion, or malicious damage.

9 Indemnity for claims and damage

- 9.1 The Contractor must indemnify the Employer against
- claims, liability, proceedings, and
 - loss of and damage to the Employer's property (except for loss or damage at the Employer's risk under clause 8.1))
- that happen in the course or as a result of the Works.
- The Contractor's indemnity in this clause does not apply to the Employer's liability under this Contract to the Contractor, nor to the extent that the matter is covered by the Employer's indemnity in clause 9.2.
- 9.2 The Employer must indemnify the Contractor against
- liability for death, injury or illness of any person or loss of damage to any physical property that the Contractor incurs in the course of performing this Contract to the extent caused by the negligence of the Employer and
- liability for property damage that is the unavoidable result of constructing the Works in accordance with this Contract.

10 Insurance

- 10.1 From the date the Employer allows the Contractor to occupy and use the Site, the Contractor must insure the Works and goods and materials for the Works against loss and damage. The Employer must be named as an insured. The insurance must be for the full reinstatement value of the property insured, including cost of demolition, removal of debris, delivery, Employer's professional fees, profit, and inflation during the construction and reinstatement periods. The sum insured for professional fees must be at least 15% of the Price. The Contractor must maintain this insurance until the Employer's Representative certifies the date that the Works were substantially complete, and must extend the insurance to cover loss and damage at the Contractor's risk until the Defects Certificate is issued.
- 10.2 The proceeds of the insurance of the Works and goods and materials for the Works (except the portion for the Employer's professional fees, which must be paid directly to the Employer) must be paid into a bank account in the joint names of the Employer and the Contractor, and paid out to the Contractor in instalments on the basis of the value of the work done and goods and materials delivered to the Site for the reinstatement, following generally clauses 4.1 and 4.2, and also paid out to the Employer for its costs. Any balance in the account after the work is done will be paid to the Employer.
- 10.3 From the date the Employer allows the Contractor to occupy and use the Site, the Contractor must have public liability and employers liability insurance, with indemnity limits of at least those in the Schedule. The Contractor's public liability policy must insure the Employer and Contractor as insured, with a cross-liability clause. The Contractor's employer's liability policy must indemnify the Employer against the liability for which it indemnifies the Contractor, including costs. The Contractor must maintain these insurances until the Defects Certificate is issued, and after that must have these insurances in place any time the Contractor or Contractor's Personnel return to the Site in connection with the Works.
- 10.4 The Contractor must place the insurances required by this Contract with reputable insurers approved by the Employer. The level of excess must be no higher than stated in the Schedule.
- 10.5 The insurance on which the Employer is to be insured must provide that

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- the term “insured” applies to each insured person as if a separate policy had been issued to each (without increasing the overall limit of indemnity) and non-compliance by the Contractor or any other insured person does not affect the Employer’s rights and
 - the insurer waives all rights of subrogation and other action against each insured person.
- 10.6 The Contractor must comply with the terms of the insurance policies required under this Contract.
- 10.7 Within 10 working days of being requested to do so, the Contractor must give the Employer evidence that the insurances required by this Contract are in effect, including copies of policies and receipts for premiums.
- 10.8 The Contractor must not make any material reduction to the insurance policies required by this Contract unless approved in advance by the Employer. The Contractor must promptly notify the Employer of any cancellation, renewal, non-renewal, or material reduction by the insurer of the terms of any insurance policy required by this Contract.
- 10.9 If the Contractor fails to maintain any of the insurances in the terms required by this Contract, the Employer may (without affecting its other rights) take out the insurance and pay the premiums, and the Contractor must pay or allow the amount of the premiums to the Employer.
- 10.10 The Contractor bears the risks allocated to it under this Contract regardless of whether the risk is, or is required to be, insured. This includes losses and liability falling below insurance excess levels and exceeding indemnity limits.

11 Property

- 11.1 The Contractor must ensure that goods and materials for the Works become the property of the Employer on the earliest of the following
- when they are delivered to the Site, if owned by the Contractor
 - when they are incorporated in the Works
 - when the Employer makes any payment for them.
- 11.2 The Contractor must ensure that the Employer is entitled to use, copy, modify, adapt, and translate for any purpose the documents that the Contractor is to provide to the Employer under this Contract. The Contractor has no liability for the Employer’s use of these documents for any purposes other than those for which they were provided.
- 11.3 The Contractor must indemnify the Employer against claims, liability, and proceedings resulting from any of the following infringing the property (including intellectual property) rights of any person:
- anything that the Contractor does for the construction of the Works, unless covered by the Employer’s indemnity in clause 11.4
 - use by the Employer of the Works and goods, materials, and documents provided by the Contractor for the Works for the purposes for which they were provided.
- 11.4 The Employer must indemnify the Contractor against claims, liability, and proceedings resulting from any of the following infringing the property (including intellectual property) rights of any person:
- use by the Contractor, in accordance with this Contract, of documents or goods provided by the Employer for the purposes for which they were provided
 - use or occupation of the Site by the Works that is the unavoidable result of constructing the Works in accordance with this Contract.

12 Termination

- 12.1 The Employer may terminate the Contractor’s obligation to complete the Works on giving written notice to the Contractor. If this happens, the Contractor’s obligation to complete the Works will terminate 10 working days after the notice was given, or a different date stated in the notice, and
- the Contractor must leave the Site in an orderly manner, but must not remove any goods or materials for the Works, or property of the Contractor or Contractor’s Personnel used or to be used for the Works, unless the Employer or Employer’s Representative so instructs
 - the Contractor must remove from the Site any property of the Contractor or Contractor’s

Personnel that the Employer or Employer's Representative instructs the Contractor to remove

- the Contractor must, as soon as practicable, give the Employer a statement of the amount (the **termination value**) due to the Contractor under this Contract and unpaid, including in it the reasonable rental value of any property of the Contractor and Contractor's Personnel that the Employer or Employer's Representative has required to be left on the Site to complete the Works, including details
- the Employer's Representative will, within 14 days after receiving the Contractor's statement of the termination value, issue a certificate stating what the Employer's Representative considers to be the termination value, with reasons
- the Employer may employ others and do anything necessary to complete the Works.

12.2 This clause applies if the Employer has terminated the Contractor's obligation to complete the Works because

- of a substantial breach by the Contractor of this Contract or
- any of the following (or similar event anywhere) occurring in relation to the Contractor —
 - a petition being presented to wind it up and not being dismissed within 14 days after presentation
 - a meeting of its creditors or members being held for the purpose of considering a resolution to wind it up
 - entering or proposing to enter an arrangement with or for the benefit of its creditors
 - a petition being presented to appoint an examiner
 - a liquidator, examiner, supervisor, receiver, administrative receiver, trustee, encumbrancer, or similar being appointed for it or any of its assets
 - ceasing or threatening to cease its business
 - becoming insolvent or unable to pay its debts as they fall due
 - being an individual, becoming bankrupt or dying or becoming incapable of performing this Contract.

Payment of any money due by the Employer to the Contractor will be postponed, and the Employer is not required to make any further payment to the Contractor until required under this clause.

After the Works have been completed the Employer's Representative will give the Contractor a certificate of the total of the following (the **termination amount**):

- the Employer's additional cost of completing the Works compared with the cost the Employer would have incurred if the Works had been completed by the Contractor under this Contract
- other costs and losses incurred by the Employer as a result of the termination and its causes and
- amounts due to the Employer from the Contractor.

If the Employer does not begin to put in place arrangements to complete the Works within 6 months after the termination, the Employer's Representative will give the above certificate to the Contractor within 14 days after the 6 month period (based, if necessary, on estimates).

If the certified termination amount is less than the certified termination value, the Contractor may give the Employer an invoice for the difference after receiving the Employer's Representative's certificate, and the Employer must pay the amount due within 30 days after receiving the invoice. If the certified termination amount is more than the certified termination value, the Contractor must pay the Employer the difference within 10 working days of receiving the Employer's Representative's certificate.

12.3 This clause applies if the Employer terminates the Contractor's obligation to complete the Works, only if clause 12.2 does not apply.

The Contractor may give the Employer an invoice for the total of the termination value certified by the Employer's Representative and the Contractor's reasonable direct cost of removal from the Site as a result of the termination. If the Employer appoints another contractor to complete the Works within 12 months after the termination, the Contractor's payment under this clause will also include the percentage of the unpaid portion of the Price stated in the Schedule. The

Employer must pay the amount due within 30 days of receiving the Contractor's invoice.

- 12.4 The Employer has no other liability in relation to termination, including no liability for lost profit or contribution to overhead.

13 Ethics in Public Office

The Contractor warrants to the Employer that neither the Contractor nor any person on the Contractor's behalf has committed any offence under the Prevention of Corruption Acts 1889 to 2010 or the Ethics in Public Office Acts 1995 to 2001 in connection with this Contract or the Works, and nor will they commit any such offence.

14 Project Supervisor for the Construction Stage

Subject to the Schedule, if the Employer appoints the Contractor as project supervisor for the construction stage of the Works according to the Safety, Health and Welfare at Work (Construction) Regulations 2013 and the Contractor must accept the appointment in writing, in the terms attached to these Conditions or other terms in this Contract, within 5 days after this Contract comes into effect, and before starting work on the Site. If this Contract provides that an individual or body corporate named by the Contractor or in this Contract is to be appointed as project supervisor for the construction stage, the Contractor must ensure that the person accepts the appointment in terms included in this Contract (if any, and if not, in terms required by the Employer) within 5 working days after this Contract comes into effect. If the Employer terminates the employment of the Contractor or person so named as project supervisor for the construction stage for failure to comply with the obligations of project supervisor, the Contractor must pay the Employer all the Employer's costs resulting from the termination.

15 Law, jurisdiction and disputes

15.1 Irish law governs this Contract and its interpretation.

15.2 The dispute resolution procedure is as follows:

- (1) If a dispute arises under this Contract, either party may, by notice to the other, refer the dispute for conciliation. Within 10 working days of the referral of a dispute to conciliation, the parties must jointly appoint a conciliator, and if they fail to do so, or if a person appointed refuses to act or becomes unable to act, the conciliator will be appointed by the president or vice-president of the body stated in the Schedule. If there is a fee for making the appointment, the parties share it equally. If one party pays the entire fee, it is entitled to reimbursement of the other party's share from the other party on demand.
- (2) Each party must, within the period set by the conciliator, send to the conciliator and the other party brief details of the dispute stating its contentions about the facts and the parties' rights and obligations concerning the dispute. The conciliator may, for this purpose, suggest further actions or investigations that may be of assistance. The parties must promptly make available to the conciliator all information, documents, access to the Site, and appropriate facilities that the conciliator requires to resolve the dispute.
- (3) The conciliator will consult with the parties in an attempt to resolve the dispute by agreement. The conciliator may meet the parties separately from each other or together and consider documents from one party not sent or shown to the other, conduct investigations in the absence of the parties, make use of specialist knowledge, establish the procedures to be followed in the conciliation and make recommendations to the parties.
- (4) The conciliator will not be an arbitrator and the Arbitration Act 2010 and the law of arbitration will not apply to the conciliation.
- (5) If the dispute is not resolved by agreement within 42 days after the conciliator was appointed, or a longer period proposed by the conciliator and agreed by the parties, the conciliation will be taken to have ended.
- (6) The conciliation will be confidential, and the parties must respect its confidentiality. All documents provided by a party in connection with a conciliation must be returned when the conciliation ends.

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- 15.3 The parties have recourse to adjudication in accordance with the Construction Contracts Act 2013

Where an adjudicator reaches a decision on a dispute referred under the Construction Contracts Act 2013, that same dispute may not be referred to conciliation under the Contract.

If a dispute between the Parties is referred to adjudication, any conciliation relating to that dispute immediately adjourns. In the event that no decision is reached by the adjudicator, the parties may continue to resolve the dispute under the conciliation. In the event that a decision is reached by the adjudicator, the conciliation for that dispute shall be terminated.

- 15.4 The parties submit to the jurisdiction of the Irish courts.

End of Conditions