

TII Publications















Library of Standard Item Descriptions

August 2018



LIBRARY OF STANDARD ITEM DESCRIPTIONS FOR THE TII REQUIREMENTS FOR MEASURING AND PRICING

Contents

	Introduction
Series 100	Preliminaries
Series 200	Site Clearance
Series 300	Fencing and Environmental Noise Barriers
Series 400	Road Restraint Systems
Series 500	Drainage and Service Ducts
Series 600	Earthworks
Series 700	Pavements
Series 800	Not taken up
Series 900	Not taken up
Series 1000	Not taken up
Series 1100	Kerbs, Footways and Paved Areas
Series 1200	Traffic Signs and Road Markings
Series 1300	Road Lighting Columns, and Brackets
Series 1400	Electrical Work for Road Lighting Traffic Signs
Series 1500	Motorway Communications
Series 1600	Piling and Embedded Retaining Walls
Series 1700	Structural Concrete
Series 1800	Structural Steelwork
Series 1900	Protection of Steelwork against Corrosion
Series 2000	Waterproofing for Structures
Series 2100	Bridge Bearings
Series 2200	Parapets (DISCONTINUED)
Series 2300	Bridge Expansion Joints and Sealing of Gaps
Series 2400	Brickwork, Blockwork and Stonework
Series 2500	Special Structures
Series 2600	Not taken up
Series 2700	Watermains, Utilities and Accommodation Works
Series 2800	Trenchless Installation of Road Drainage and Service Ducts
Series 2900	CCTV Survey of Road Drainage Systems

This document is provided for information only and shall not be considered a contractual document. Responsibility for proper compilation of Bills of Quantities using the TII Requirements for Measuring and Pricing lies solely with the compiler.

Introduction

General

The Library has been compiled in accordance with the itemisation features of Transport Infrastructure Ireland (TII) Requirements for Measuring and Pricing. This is a master library which can be used direct for manual billing, or as the basis from which individual libraries can be constructed to suit available computer facilities. Whatever process is followed the end result should produce directly comparable Bills of Quantities.

The root narratives contain numbered inserts which can, by the use of a numbered variable from the appropriate numbered group, produce unique item descriptions for all standard constructional work.

For example, if the user is required to create an item description for a Timber Post and Rail Fence Type B (CC-SCD-00301) that is 1.4m high and not painted, by referring to Series 300: Fencing and Environmental Noise Barriers, a unique item description can be built up as follows:

Root Narrative Item 1 - 1* 2* 6*

Variables

- 1*(a) = No Entry
 - (b) = Timber Post and Rail Fence Type A (CC-SCD-00301)
 - (c) = Timber Post and Rail Fence Type B (CC-SCD-00301)
 - (d) Stud Fencing Type A (CC-SCD-00302)
 - (e) Concrete Post and Rail Fence (CC-SCD-00303)
 - (f) Timber Post and Wire Fence (CC-SCD-00304)
 - (g) Cleft Chestnut Pale Fence(CC-SCD-00305)
 - (h) Concrete Post and Mesh (CC-SCD-00306)
 - (i) Woven and Lap Boarded Panel Fences(CC-SCD-00307)
 - (j) Diagrammatic Methods of Attaching Fencing to Structures(CC-SCD-00308)
 - (k) Steel Palisade Security Fence (CC-SCD-00317)
- (I) Cranked Concrete Post and Mesh (CC-SCD-00318)
- (m) Mammal Resistant Fence (CC-SCD-00319)
- (n) Timber Post and Tension Mesh Fence(CC-SCD-00320)
- (o) Timber Post and Tension Mesh Stud Fence (CC-SCD-00321)
- (p) Stud Fencing Type B (CC-SCD-00322)
- (q) Safety Fences Pedestrian Guardrail (CC-SCD-00401)
- (r) [Stated types]

2*(a) = No Entry

(b) = [Stated different height of fencing]

6* (a) = No Entry

(b) = Painted

From the root narrative for fencing **i.e.** 1* 2* 6*, the user is prompted to select a variable from each of the groups 1, 2 & 6.

For an Item Description for a Timber Post and Rail Fence Type B (CC-SCD-00301) that is 1.4m high and not painted, the user will select the following variables from each groups 1, 2 & 6;

1* (c) = Timber Post and Rail Fence (CC-SCD-00301)

2*(b) = [Insert Height of 1.4m]

6*(a) = No Entry

This will create the following item description;

Timber Post and Rail Fence Type B (CC-SCD-00301), 1.4 m high

Amendments to the Library

Any variable not listed in a group but belonging to a group generically may be added to it and numbered sequentially. Items which cannot be compiled from the existing root narratives are rogue items and if required they should be drafted on the same principles as the Library and inserted as necessary in the Bill of Quantities.

Rogue items not contained in the Library but which are found to be consistently necessary and are felt to be of national application should be forwarded to infoPUBS@tii.ie for evaluation and possible incorporation into any standard amendments which may be issued.

Series 100 Preliminaries

Item	Root Narrative	Unit
	Temporary Accommodation	
1 2 3	Erection of temporary accommodation 1* 2* 3* 4* Servicing of temporary accommodation 1* 2* 3* 4* Dismantling of temporary accommodation 1* 2* 3* 4*	Item Item Item
	Permanent Accommodation	
4 5 6	Erection of permanent accommodation 13* 14* Servicing of permanent accommodation 13* 14* Dismantling of permanent accommodation 13* 14*	Item Item Item
	Vehicles for the Employer's Personnel	
7	Vehicles for the Employer's Personnel 5* 4*	Week
	Communication System for the Employer's Representative	
8	Communication System for the Employer's Representative 4*	Item
	Operatives for the Employer's Representative	
9	Operatives for the Employer's Representative 6* 4*	Day
	Information Board	
10	Information Board 6*	No.
	Traffic Safety and Management	
	Traine Salety and Management	
11	Traffic safety and management	Item
11 12		Item Item
	Traffic safety and management	
12 13	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers	Item Item
12 13	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site	Item Item
12 13 14 15 16	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site Temporary Diversion for Traffic Taking measures for or construction of temporary diversion for traffic 7* Maintenance of measures for or construction of temporary diversion for traffic 7*	Item Item Item Item
12 13 14 15 16	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site Temporary Diversion for Traffic Taking measures for or construction of temporary diversion for traffic 7* Maintenance of measures for or construction of temporary diversion for traffic 7* Removal of measures for or construction of temporary diversion for traffic 7*	Item Item Item Item
12 13 14 15 16 17	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site Temporary Diversion for Traffic Taking measures for or construction of temporary diversion for traffic 7* Maintenance of measures for or construction of temporary diversion for traffic 7* Removal of measures for or construction of temporary diversion for traffic 7* Recovery Vehicles	Item Item Item Item Item Item Item
12 13 14 15 16 17	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site Temporary Diversion for Traffic Taking measures for or construction of temporary diversion for traffic 7* Maintenance of measures for or construction of temporary diversion for traffic 7* Removal of measures for or construction of temporary diversion for traffic 7* Recovery Vehicles Recovery vehicle 6*	Item Item Item Item Item Item Item
12 13 14 15 16 17 18	Traffic safety and management Taking measures for or construction, maintenance, removal of contraflow arrangements Removing from store and installing temporary vertical concrete safety barriers Taking up or down and removing to store off site Temporary Diversion for Traffic Taking measures for or construction of temporary diversion for traffic 7* Maintenance of measures for or construction of temporary diversion for traffic 7* Removal of measures for or construction of temporary diversion for traffic 7* Recovery Vehicles Recovery Vehicle 6* Progress Photographs Set of progress photographs 8* Set of aerial progress photographs 8* Additional progress photographs 8*	Item Item Item Item Item Item Item Item

Group

1*

2*

3*

4*

5*

(b)

Emergency Services 24 **Emergency services** Item Facilities for Local Authority, Public or Private Utility Undertakers and Other **Contractors** 25 Facilities for Service Undertakers and other Contractors 9* Item **Property Condition Surveys** 26 Property condition survey 10* Item **Project Supervisor for the Construction Stage** 27 Acceptance of Appointment as Project Supervisor for the Construction Stage Item Safety File 28 Safety File Item As Built Records 29 As Built Records Item **Specialist works** 30 Specialist works 15* 11* 12* Item 31 General attendances 15* 11* 12* Item 32 Special attendances 15* 11* 12* Item 33 Management 15* 11* 12* Item 34 Profit (Main Contractor) 15* 11* 12* % **Standing Conciliator** 35 Standing Conciliator Item No. **Variables** No Entry (a) (b) Principal Offices for the Employer's Representative (c) Principal laboratories for the Employer's Representative (d) Portable offices for the Employer's Representative (e) Portable laboratories for the Employer's Representative Offices and messes for the Contractor (f) Stores and workshops for the Contractor (g) (h) [Stated different types of Accommodation] (a) No Entry Provided by the Employer (b) (a) [Stated place of fabrication or manufacture] (b) (a) No Entry (b) Until completion of the Works After completion of the Works (c) (a) No Entry

[Stated type of vehicle for the Employer's Personnel]

6* No Entry (a) [Stated types] (b) 7* (a) No Entry At locations listed in Appendix 1/18 (b) (c) At those locations listed in Appendix 1/18 but not measured individually (d) At locations proposed by the Contractor [At stated different locations] (e) 8* No Entry (a) (b) Monochrome prints (c) Colour prints 9* No Entry (a) (b) [Stated different Service Undertakers and other Contractors] 10* (a) (b) [Stated locations] 11* (a) No Entry (b) Specialist A Reserved Sum [direct entry] (c) Specialist B Reserved Sum etc. [direct entry] (d) Novated Specialist A Contract Sum [direct entry] (e) Novated Specialist B Contract Sum etc. [direct entry] 12* (a) No Entry General attendances (b) Special attendances (c) Management (d) Main contractor's profit (e) 13* No Entry (a) Principal Offices for the Employer's Representative (b) Principal laboratories for the Employer's Representative (c) (d) Portable offices for the Employer's Representative Portable laboratories for the Employer's Representative (e) [Stated different types of Accommodation] (f) 14* Until completion of the Works (a) Until completion of the Defects Period (b) 15* (a) No Entry (b) [Identification of work]

Series 200 Site Clearance

	Item	Root Narrative	Uni
		Site Clearance	
	1	General site clearance	На
	2	General site clearance of separate sections 1*	На
	3	Demolition of individual or groups of buildings or structures 1*	Item
	4	Partial demolition of individual structures 1*	Item
		Take Up or Down and Set Aside for Reuse or Remove to Store or Tip off Site	
	5	Take up or down 2* 3* 10* 11*	m³
	6	Take up or down 2* 4* 10* 11*	m²
	7	Take up or down 2* 5* 10* 11*	m
	8	Take up or down 2* 6* 10* 11*	m
	9 10	Take up or down 2* 7* 10* 11* Take up or down 2* 8* 10* 11*	no.
	11	Take up or down 2* 9* 10* 11*	no. no.
Group	No.	Variables	
1*	(a)	No Entry	
	(b)	[Stated separate section]	
	(c)	[Stated individual or group of buildings or structures]	
	(d)	[Stated individual structure]	
2*	(a)	and set aside for reuse	
	(b)	and remove to store off site	
	(c)	and remove to tip off site	
3*	(a)	No Entry	
	(b)	Blockwork	
	(c)	Stonework	
	(d)	[Stated different types]	
4*	(a)	No Entry	
	(b)	Precast concrete slab paving	
	(c)	Stone flag paving	
	(d)	brick paving	
	(e)	cobble paving	
	(f)	granite sett paving	
	(g)	block paving	
	(h)	[Stated different types of paving]	
	(i)	brickwork [Stated type]	
5*	(a)	No Entry	
	(b)	Precast concrete kerbs	
	(c)	Granite kerbs	
	(d)	Precast concrete channels	
	(e)	Precast concrete edgings	
	(f)	Combined drainage and kerb blocks	
	(g)	Linear drainage channel systems	
		[Stated different types of kerbs, channels, edgings, combined drainage and kerb blocks,	
	(h)	Linear drainage channel systems]	
	(1)	Post and rail fencing	

- (j) Cleft chestnut fencing
- (k) Chain link fencing
- (I) [Stated different types of fencing]
- (m) Untensioned single sided safety barrier
- (n) Untensioned double sided safety barrier
- (o) Tensioned single sided safety barrier
- (p) Tensioned double sided safety barrier
- (q) [Stated different types of safety barrier]
- (r) Vehicle parapet [Stated different types of vehicle parapet]
- (s) Safety barrier Transition from [Stated type] to [Stated type]
- (t) Safety barrier Terminal [Stated type]
- (u) Pedestrian guardrails [Stated type]
- (v) Pedestrian parapets [Stated type]
- (w) Copings [Stated type]
- (x) String courses [Stated type]
- 6* (a) No Entry
 - (b) Power cable laid singly
 - (c) Power cables laid as a pair
 - (d) Communications cable laid singly
 - (d) Communications cables laid as a pair
 - (e) [Stated different types of cable arrangements]
- 7* (a) No Entry
 - (b) Road lighting columns
 - (c) Road lighting columns including bracket arm and lantern
 - (d) Wall mounting
 - (e) Wall mounting including bracket arm and lantern
 - (f) Traffic signs
 - (g) Traffic sign including posts
 - (h) Internally illuminated traffic sign
 - (i) Internally illuminated traffic sign including posts
 - (j) Externally illuminated traffic sign
 - (k) Externally illuminated traffic sign including posts
 - (I) Reflecting road studs
 - (m) Timber gate
 - (n) Metal gate
 - (o) Stiles
 - (p) Individual blocks
 - (q) Individual masonry features
 - (r) Individual stones
 - (s) Street furniture [Stated type]
 - (t) Feeder pillars
 - (u) Communications cabinets [Stated type]
 - (v) Posts
 - (w) Brackets
 - (x) Signal indicators
 - (y) Shelves
 - (z) Racking
 - (aa) Frames
 - (bb) Electronic units and the like [Stated type]
 - (cc) Cattle trough

11*

(a)

(b)

No Entry

[Stated different arrangements]

(dd) Parking meter (ee) Pedestrian crossing lights (ff) Camera pole Traffic signal [Stated type] (gg) (hh) Motorwarn assembly [Stated type] (ii) Emergency telephone [Stated type] (jj) Permanent bollard [Stated type] (kk) [Stated item] 8* chamber covers and frames and the like (a) (b) gully gratings and frames and the like [Stated item] (c) 9* (a) Individual blocks Individual masonry features (b) Individual stones (c) [Stated item] (d) 10* (a) No Entry [Stated different types and sizes] (b)

Series 300 Fencing and Environmental Noise Barriers

	Item	Root Narrative	Unit
		Fencing, Gates and Stiles	
	1	Fencing 1* 2* 6*	m
	2	Concrete footing 7* 1*	no.
	3	Gates 4* 3* 6*	no.
	4	Stiles 5* 6*	no.
		Remove from Store and Re-erect Fencing, Gates and Stiles	
	5	Remove from store and re-erect fencing 1* 2* 6*	m
	6	Concrete footing 7* 1*	no.
	7	Remove from store and re-erect gates 4* 3* 6*	no.
	8	Remove from store and re-erect stiles 5* 6*	no.
		Walls and Environmental Noise Barriers	
	9	Walls 8* 10* 12* 13* 14* 15*	m
	10	Environmental noise barriers 9* 11* 12* 13* 14* 15*	m
Group	No.	Variables	
1*	(a)	No Entry	
	(b)	Temporary Fencing	
	(c)	Timber Post and Rail Fence (CC-SCD-00301)	
	(d)	Stud Fencing Type A (CC-SCD-00302)	
	(e)	Concrete Post and Rail Fence (CC-SCD-00303) - mesh	
	(f)	Concrete Post and Rail Fence (CC-SCD-00303) - barbed wire	
	(g)	Timber Post and Wire Fence (CC-SCD-00304)	
	(h)	Cleft Chestnut Pale Fence (CC-SCD-00305)	
	(i)	Concrete Post and Mesh (CC-SCD-00306)	
	(j)	Woven and Lap Boarded Panel Fences (CC-SCD-00307)	
	(k)	Steel Palisade Security Fence (CC-SCD-00317)	
	(l)	Cranked Concrete Post and Mesh (CC-SCD-00318) Mammal Resistant Fence (CC-SCD-00319)	
	(m) (n)	Timber Post and Tension Mesh Fence (CC-SCD-00320)	
	(o)	Timber Post and Tension Mesh Fence (CC-SCD-00320) - Mammal Resistant (note 16)	
	(p)	Timber Post and Tension Mesh Stud Fence (CC-SCD-00321)	
		Timber Post and Tension Mesh Stud Fence (CC-SCD-00321) - Mammal Resistant (note	
	(q)	17)	
	(r)	Stud Fencing Type B (CC-SCD-00322)	
	(s)	Safety Fences - Pedestrian Guardrail (CC-SCD-00401)	
	(t)	[Stated different types of fences]	
2*	(a)	No Entry	
	(f)	[Stated different height of fencing]	
3*	(a)	No Entry	
	(b)	[Stated height and width of gates]	

4* No Entry (a) Steel Single Field Gate (CC-SCD-00309) TYPE 1 (b) (c) Steel Single Field Gate (CC-SCD-00309) TYPE 2 (d) Steel Single Field Gate (CC-SCD-00309) TYPE 3 (e) Steel Double Field Gate (CC-SCD-00310) 6.22m WIDE (post to post) (f) Steel Double Field Gate (CC-SCD-00310) 7.02m WIDE (post to post) Timber Single Field Gate (CC-SCD-00311) (g) (f) Timber Wicket Gate (CC-SCD-00312) Hinges for Timber Field Gates (CC-SCD-00313) (g) Standard Gate Stops (CC-SCD-00314) (h) [Stated different types of gates] (i) 5* (a) No Entry (b) Timber Stile - Type 1 (CC-SCD-00315) (c) Timber Stile - Type 2 (CC-SCD-00316) (d) [Stated different types of stile] 6* No Entry (a) Painted (b) 7* (a) No Entry (b) Main posts (c) Straining posts (d) Struts Intermediate posts (e) 8* (a) No Entry (b) [Stated type of wall] 9* No Entry (a) General Arrangement Non-concrete Environmental Noise Barrier Precast Concrete (b) Gravel Board (CC-SCD-00323) [Stated type of environmental noise barrier] (c) 10* (a) No Entry [Stated height of wall] (b) 11* No Entry (a) (b) [Stated heights of barriers] 12* No Entry (a) (b) Curved on plan 13* No Entry (a) (b) With battered face 14* (a) No Entry [Stated different finishes] (b) 15* No Entry (a) [Stated different infill's] (b)

Group

1*

Series 400 Road Restraint Systems (Vehicle and Pedestrian)

Item	Root Narrative	Unit
	Safety Barrier System	
1	Safety barrier 1* 2* 3* 4* 5*	m
	Transitions	
		no.
2	6* 1* 2* 3* 4* 5* 	
	Terminals	
3	Terminals 7* 17* 2* 8* 4*	no.
	Delivery of Materials and Equipment for Maintenance Purposes	
4	Delivery of safety barrier for maintenance purposes 19* 4*	m
5	Delivery of terminals and transitions for maintenance purposes 19* 4* Delivery of specialised installation, maintenance and demolition equipment for	no. Item
6 7	maintenance purposes 19* Training for maintenance purposes 19*	Item
	Temporary Safety Barriers	
8	Temporary safety barriers 9* 5* 10* 11*	m
9 10	Temporary safety barrier transitions 9* 5* 10* 11* Temporary safety barrier terminations 9* 5* 10* 11*	no. no.
	Vehicle Parapet Systems	
11	Standard Parapets 1* 2* 3* 12* 13*	m
12	Bespoke Parapets 14* 1* 2* 3* 12* 13*	m
	Pedestrian Parapets, Pedestrian Guardrails and Handrails	
13 14	Pedestrian parapet 9* 15* 12* 13* 16* Pedestrian guardrails 18* 15* 12* 13* 16*	m m
15	Handrails 9* 15* 12* 13* 16*	m
	Anti-Glare Screens	
16	Anti-Glare Screens 9* 5*	m
No.	Variables	
	No Entry	
(a)	NO LIIU y	

(b) Normal containment N1 Normal containment N2 (c) (d) Higher containment H1 Higher containment H2 (e) (f) Higher containment H3 Higher containment L1 (g) Higher containment L2 (h) Higher containment L3 (i) Very high containment H4a (j) Very high containment H4b (k) (I) Very high containment L4a (m) Very high containment L4b (n) [Stated containment type] 2* (a) No entry Impact Severity Level A (b) (c) Impact Severity Level B (d) Impact Severity Level C (e) [Stated Impact Severity] 3* No Entry (a) Working width class W1 (b) Working width class W2 (c) (d) Working width class W3 (e) Working width class W4 (f) Working width class W5 (g) Working width class W6 Working width class W7 (h) Working width class W8 (i) [Stated working width class] (j) 4* (a) No Entry (b) Designed to be impacted on one side only Designed to be impacted on both sides (c) 5* (a) No Entry (b) Straight or curved exceeding 120 metres radius (c) Curved exceeding 50 metres radius but not exceeding 120 metres radius (d) Curved not exceeding 50 metres radius 6* No Entry (a) (b) Transitions between safety barriers of different characteristics Transitions between safety barriers and parapets (c) (d) [Stated different areas of transitions] 7* (a) (b) [Stated lateral displacement zone class] 8* (a) No Entry [Stated Exit Box Class] (b) 9* (a) No Entry (b) [Stated type] 10* (a) No Entry (b) Units supplied by the Road Authority

Units supplied by the Contractor (c) 11* (a) No Entry (b) Units to be handed over to Road Authority on completion Ownership of units to be retained by Contractor on completion (c) 12* (a) No Entry (b) [Stated different location] 13* No Entry (a) Straight or curved exceeding 50 metres radius (b) (c) Curved not exceeding 50 metres radius 14* (a) Designed by the Contractor (b) (c) Designed by the Employer 15* (a) No Entry 1000mm in height (b) (c) 1250mm in height (d) 1400mm in height 1500mm in height (e) 1800mm in height (f) [Stated different heights] (g) 16* No Entry (a) Curved in plan to different radii (b) 17* (a) No Entry (b) Performance Class P1 Performance Class P4 (c) 18* (a) Pedestrian Guardrail (CC-SCD-00401) (b) [Stated type] (c) 19* (a) No Entry (b) [Stated type of safety barrier] (c) [Stated type of terminal] (b) [Stated type of transition] (e) [Stated type of equipment] (f) [Stated type of training]

Series 500 Drainage and Service Ducts

Item	Root Narrative	Unit
	Drains, Sewers, Piped Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains)	
1 2 3 4 5	Drains 1* 2* 3* 4* 5* Sewers 1* 2* 3* 4* 5* Piped culverts 1* 2* 3* 4* 5* Service ducts 1* 2* 3* 36* 37* 4* 5* Adjustment rate on the last item for each 25mm of difference in excess of 150mm from average depth of 38*	m m m m
	Filter Drains	
6a 6b 7	Filter Drains 1* 2* 6* 5* Adjustment rate on the last item for each 25mm of difference in excess of 150mm from average depth of 38* Filter material contiguous with filter drains 1* 35* 2* 3* 6*	m Item m³
	Fin Drains and Narrow Filter Drains	
8 9	Fin drains 7* 11* Narrow filter drains 7* 11*	m m
	Connections	
10 11 12	Connection to existing drain, sewer or piped culvert 1* 12* Connection to existing chamber 1* 12* Connection to permanently severed land or mole drain 1* 12*	no. no. no.
	Chambers and Gullies	
13 14 15	Chamber 8* 13* 14* Gully 8* 13* 14* Silt trap 8* 13* 14*	no. no. no.
	Headwalls and Revetments	
16 17	Headwalls 10* 15* 16* 17* Revetments 10* 15* 16* 17*	no.
	Soft Spots and Other Voids	
18 19	Excavation of soft spots and other voids 18* Filling of soft spots and other voids 18*	m³ m³
	Supports Left in Excavation	
20	Supports 19* 15* 20*	m²
	Drainage and Service Ducts in Structures (Including Reinforced Earth Structures and Anchored Earth Structures)	
21 22	Drainage of 15* Service ducts in 15*	Item Item

		Filling to Pipe Bays and Verges on Bridges	
	23	Filling to Pipe Bays and Verges on Bridges with 23*	m³
		Renewal, Raising or Lowering Covers and Gratings on Existing Chambers and Gullies	
	24	Renewal of 25* 26* 27* 28* 29*	no.
	25 26	Raising the level of 25* 26* 27* 28* 29* Lowering the level of 25* 26* 27* 28* 29*	no. no.
		Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames	
	27	Remove from store and reinstall 30* 27*	no.
		Grouting Up of Existing Drains, Sewers, Piped Culverts and Service Ducts	
	28	Grouting up of existing 1* diameter 31* with 23*	m
		Excavation in Hard Material	
	29	Extra over excavation for excavation in hard material in drainage	m³
		Backdrop Chambers	
	30	Extra over chambers for backdrops 1* 32*	no.
		Petrol/Oil Interceptors, Hydro Brake Manhole and Gate Valve Manhole	
	31 32 33	Petrol/Oil Interceptors 33* 34* Hydro Brake Manhole 33* 34* Gate Valve Manhole 33* 34*	no. no. no.
Group	No.	Variables	
1*	(a)	No Entry	
	(b)	75mm internal diameter 100mm internal diameter	
	(d) (e)	125mm internal diameter 150mm internal diameter	
	(f)	175mm internal diameter	
	(g) (h)	200mm internal diameter 225mm internal diameter	
	(i)	250mm internal diameter	
	(j) (k)	275mm internal diameter 300mm internal diameter	
	(I)	325mm internal diameter	
	(m) (n)	350mm internal diameter 375mm internal diameter	
	(o)	400mm internal diameter	
	(p)	425mm internal diameter	
	(q) (r)	450mm internal diameter 475mm internal diameter	
	(s)	500mm internal diameter	
	(t) (u)	525mm internal diameter 550mm internal diameter	
	(v)	575mm internal diameter	

- (w) 600mm internal diameter
- (x) 625mm internal diameter
- (y) 650mm internal diameter
- (z) 675mm internal diameter
- (aa) 700mm internal diameter
- (bb) 725mm internal diameter
- (cc) 750mm internal diameter
- (dd) 775mm internal diameter
- (ee) 800mm internal diameter
- (ff) 825mm internal diameter
- (gg) 850mm internal diameter
- (hh) 875mm internal diameter
- (ii) 900mm internal diameter
- (jj) 925mm internal diameter
- (kk) [Stated diameter]
- (II) One number 100mm internal
- (mm) Two number 100mm internal
- (nn) Three number 100mm internal
- (oo) Four number 100mm internal
- (pp) Five number 100mm internal
- (qq) [Stated number and stated diameter]
- 2* (a) No Entry
 - (b) Depths to invert not exceeding 2 metres [Stated average depth to invert to the nearest 25mm]
 - (c) Depths to invert exceeding [2] metres but not exceeding [4] metres (steps of 2m) [Stated average depth to invert to the nearest 25mm]
- 3* (a) No Entry
 - (b) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type 7
 - (c) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type
 - (d) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type S
 - (e) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type
 - (f) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type
 - (g) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type
 - (h) Drainage Surface Water Drains Trench and Bedding Details (CC-SCD-00521) Type N
 - (i) Ducts Transverse Ducts (CC-SCD-00560)
 - (j) Ducts Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A
 - (k) Ducts Trench Cross Sections Under Trafficked Areas (CC-SCD-00561) Type B
 - (I) Ducts Trench Cross Sections Under Non-Trafficked Areas (CC-SCD-00562) Type C
 - (m) Ducts Duct Crossing Types (CC-SCD-00563) Type 1
 - (n) Ducts Duct Crossing Types (CC-SCD-00563) Type 2
 - (o) Ducts Duct Crossing Types (CC-SCD-00563) Type 3
 - (p) Ducts Duct Crossing Types (CC-SCD-00563) Type 4
 - (q) Ducts Duct Crossing Types (CC-SCD-00563) Type 5
 - (r) Ducts Footway/Verge Draw Pit (CC-SCD-00564)
 - (s) Ducts Carriageway Draw Pit Type A (CC-SCD-00565)
 - (t) Ducts Carriageway Draw Pit Type B (CC-SCD-0056)
 - (u) Ducts Duct Spacer and Strapping for Trenchless Construction (CC-SCD-00567)

- (v) Edge of Pavement Details Carriageway in Cutting Nearside Verge Detail Where Kerbed & with Closed Drainage System (CC-SCD-00567)
- (w) [Specified design group]
- (x) [Stated particular design stated in the contract]
- 4* (a) No Entry
 - (b) Construction to trench
 - (c) Construction in heading
 - (d) Construction by jacking or thrust boring
 - (e) Suspended on discrete supports
- 5* (a) No Entry
 - (b) In side slopes of cuttings or side slopes of embankments
- 6* (a) No Entry
 - (b) Drainage Filter Drains Trench and Bedding Details (CC-SCD-00520) TYPE G
 - (c) Drainage Filter Drains Trench and Bedding Details (CC-SCD-00520) TYPE H
 - (d) Drainage Filter Drains Trench and Bedding Details (CC-SCD-00520) TYPE I
 - (e) Drainage Filter Drains Trench and Bedding Details (CC-SCD-00520) TYPE K
 - (f) Drainage Slope Drainage Herringbone Filter Drains (CC-SCD-00529)
 - (g) Drainage Typical Swale Detail (CC-SCD-00525)
 - (h) [Specified design group]
 - (i) [Stated particular design stated in the contract]
- 7* (a) No Entry
 - (b) Drainage Edge of Pavement Drains Fin Drains and Narrow Filter Drains (CC-SCD-00540) TYPE 5
 - (c) Drainage Edge of Pavement Drains Fin Drains and Narrow Filter Drains (CC-SCD-00540) TYPE 6
 - (d) Drainage Edge of Pavement Drains Fin Drains and Narrow Filter Drains (CC-SCD-00540) TYPE 7
 - (e) Drainage Edge of Pavement Drains Fin Drains and Narrow Filter Drains (CC-SCD-00540) TYPE 8
 - (f) Drainage Edge of Pavement Drains Fin Drains and Narrow Filter Drains (CC-SCD-00540) TYPE 9
 - (g) Drainage Edge of Pavement Drains Installation of Fin Drains (CC-SCD-00541) [Stated Type]
 - (h) Drainage Edge of Pavement Drains Installation of Narrow Filter Drains (CC-SCD-00542) [Stated Type]
 - (i) Drainage Edge of Pavement Drains Under Channel Drainage Layers (CC-SCD-00543)
 - (j) [Specified design group]
 - (k) [Stated particular design stated in the contract]
- 8* (a) No Entry
 - (b) Drainage Chamber Type A (Block or In Situ Concrete Manhole) (CC-SCD-00502)
 - (c) Drainage Chamber Type B (Block or In Situ Concrete Manhole) (CC-SCD-00503)
 - (d) Drainage Chamber Type C (Precast Concrete Manhole) (CC-SCD-00504)
 - (e) Drainage Chamber Type D (Precast Concrete Manhole) (CC-SCD-00505)
 - (f) Drainage Chamber Type E (Precast Concrete Manhole) (CC-SCD-00506)
 - (g) Drainage Chamber Type E Typical Hinged Grating Details (CC-SCD-00507)
 - (h) Drainage Vertical Backdrop in Manholes -(CC-SCD-00508)
 - (i) Drainage Chamber Type F (Precast Catchpit) (CC-SCD-00509)
 - (i) Drainage Precast Concrete Gully (CC-SCD-00510)
 - (j) In Situ Concrete Gully (as per CC-SCD-00511 Drainage In Situ Concrete and Blockwork Gullies)
 - (k) Blockwork Gully (as per CC-SCD-00511 Drainage In Situ Concrete and Blockwork Gullies)
 - (I) Drainage Gully Grating (CC-SCD-00512)
 - (m) Drainage In-Line Outlet to Triangular Surface Water Channel (CC-SCD-00526)

- (n) Drainage In-Line Outlet to Trapezoidal Surface Water Channel (CC-SCD-00527)
- (o) Drainage Weir Outlet to Surface Water Channel (CC-SCD-00528)
- (p) [Specified design group]
- (q) [Stated particular design stated in the contract]
- 9* (a) No Entry
 - (b) CC-SCD-00551 Drainage Self Clearing Inlet Grid Detail
 - (c) CC-SCD-00552 Drainage Outlet Grid Detail
 - (d) [Specified design group]
 - (e) [Stated particular design stated in the contract]
- 10* (a) No Entry
 - (b) Drainage G.A. of Formed Headwalls 150 1800 Diameter Pipes (CC-SCD-00553)
 - (c) Drainage Rock Armour: Scour Protection (CC-SCD-00550)
 - (d) [Specified design group]
 - (e) [Stated particular design stated in the contract]
- 11* (a) No Entry
 - (b) Depth not exceeding 1.5 metres
- 12* (a) No Entry
 - (b) Depth not exceeding 2 metres
 - (c) Depths to invert exceeding [2] metres but not exceeding [4] metres (steps of 2m)
- 13* (a) No Entry
 - (b) Depth not exceeding 1 metre
 - (c) Depths to invert exceeding [1] metre but not exceeding [2] metres (steps of 1m)
- 14* (a) No Entry
 - (b) [Stated different type and sizes of cover or grating]
- 15* (a) No Entry
 - (b) [Stated different type]
- 16* (a) No Entry
 - (b) In brickwork
 - (c) In mass concrete
 - (d) In reinforced concrete
 - (e) [Stated different material]
 - (f) [Particular design stated in the Contract]
- 17* (a) No Entry
 - (b) Pipe not exceeding 100 mm internal diameter
 - (c) Pipe exceeding 100 mm but not exceeding 300mm internal diameter
 - (d) Pipe exceeding 300 mm but not exceeding 600mm internal diameter
 - (e) Pipe exceeding 600 mm but not exceeding 900mm internal diameter
 - (f) Pipe exceeding 900 mm but not exceeding 1200mm internal diameter(g) Pipe exceeding 1200 mm but not exceeding 1500mm internal diameter
 - (h) Pipe exceeding 1500 mm but not exceeding 1800mm internal diameter
- 18* (a) No Entry
 - (b) Acceptable material [stated class]
 - (c) Pipe bedding material [stated type]
 - (d) In situ concrete [stated concrete grade]
 - (e) [Stated different types of fill]
- 19* (a) No Entry
 - (b) Timber
 - (c) Steel

20*	(a) (b) (c) (d)	No Entry Construction in trench Construction in pits Construction in heading
21*	(a) (b) (c) (d) (e) (f)	No Entry Substructure – end supports Substructure – intermediate supports Superstructure Reinforced earth structure Anchored earth structure
22*	(a) (b)	No Entry [Stated different material]
23*	(a) (b) (c)	No Entry Cement/PFA grout [Stated different types of grout]
24*	(a) (b)	No Entry [Stated different sizes]
25*	(a) (b) (c)	No Entry [Stated different size of cover] [Stated different size of grating]
26*	(a) (b) (c)	No Entry [Stated different type of cover] [Stated different type of grating]
27*	(a) (b) (c)	No Entry [Stated different size of chamber] [Stated different size of gully]
28*	(a) (b) (c) (d) (e) (f) (g) (h) (l)	No Entry Brick Precast concrete In situ concrete [stated grade] Corrugated galvanised steel Vitrified clay Cast iron [Stated different construction of chamber] [Stated different construction of gully]
29*	(a) (b) (c)	No Entry Not exceeding 150mm Exceeding [150]mm but not exceeding [300]mm (steps of 150mm)
30*	(a) (b)	No Entry [Stated different types of chamber covers and frames or gully grating and frames]
31*	(a) (b) (c) (d) (e)	No Entry Drains Sewers Piped culverts Service ducts
32*	(a) (b)	No Entry Depth not exceeding 1 metre
33*	(a) (b)	No Entry [Stated different classes]

No Entry 34* (a) (b) [Stated different types and capabilities] 35* (a) No Entry CC-SCD-00520 - Type A Material (b) (c) CC-SCD-00520 - Type B Material [Stated different types of filter material infill] (d) 36* (a) No Entry (b) 2 way ducting (c) 4 way ducting (d) 6 way ducting [Stated different type of ducting configuration] (e) 37* No Entry (a) Ductile Iron (b) **UPVC** (c) (d) [Stated different type of duct material type] 38* (a) No Entry

Series 600 Earthworks

Item	Root Narrative	Unit
	Excavation	
1 2 3 4	Excavation of acceptable material 5A Excavation of acceptable material excluding class 5A 1* 2* Excavation of unacceptable material Class U1 1* 2* Excavation of unacceptable material Class U2 1* 2*	m³ m³ m³ m³
	Excavation in Hard Material	
5	Extra over excavation for excavation in hard material 3*	m³
	Processing of Unacceptable Material Class U1	
6	Processing of Unacceptable Material Class U1 4* 5*	m³
	Deposition of Fill	
7 8 9	Deposition of acceptable material 6* Deposition of acceptable material Class 1C 6* Deposition of acceptable material Class 6B 6*	m³ m³ m³
	Disposal of Material	
10 11 12 13	Disposal of acceptable material excluding Class 5A Disposal of acceptable material Class 5A Disposal of unacceptable material Class U1 Disposal of unacceptable material Class U2	m³ m³ m³ m³
	Imported Fill	
14	Imported topsoil Class 5B	m³
15	Imported acceptable material fill 6*	m³
16	Other stated classes of imported acceptable 12* 6*	m³
	Compaction of Fill	
17 18 19	Compaction of acceptable material 6* Compaction of acceptable material Class 1C 6* Compaction of acceptable material Class 6B 6*	m³ m³ m³
	Soil Improvement	
20	Soil Improvement 7* 8*	m³
	Geotextiles	
21	Geotextile 9* 10*	m²

Soft Spots and Other Voids

22 23	Excavation of soft spots and other voids 11* 12* Filling of soft spots and other voids 11* 12*	m³ m³
	Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies	
24 25 26 27 28	Removal of 13* 14* 15* 39* Removal of disused gullies, manholes and chambers 13* 14* 15* 39* Backfilling disused service 17* 13* 14* 15* 16* Backfilling disused basement, cellar and the like 17* 13* 14* 15* 16* Backfilling disused gullies 17* 13* 14* 15* 16*	m no. m³ m³ no.
	Supports left in Excavation	
29	Supports left in Excavation 18* 19*	m²
	Topsoiling and Storage of Topsoil	
30 31	Topsoiling of different thicknesses 20* Permanent storage of topsoil	m² m³
	Grass Seeding and Turfing	
32 33 34	Grass seeding 20* 22* Turfing 20* 21* Hydraulic mulch grass seeding 20* 22*	m² m² m²
	Completion of Formation and Sub-Formation	
35 36 37 38 39 40 41	Completion of sub-formation on acceptable material Completion of sub-formation on Class 1C material Completion of sub-formation on 6B material Completion of sub-formation on rock in cuttings Completion of formation on acceptable material Completion of formation on Class 1C material Completion of formation on 6B material Completion of formation on rock in cuttings	m² m² m² m² m² m² m²
	Lining of Watercourses	
43 44 45	Lining of new watercourse 23* 24* 25* Lining of enlarged watercourse 23* 24* 25* Lining of intercepting ditches 23* 24* 25*	m² m² m²
	Clearing of Existing Ditches	
46	Clearing of Existing Ditches 4*	m
	Ground Improvement – Establishment of Dynamic Compaction Plant	
47	Establishment of dynamic compaction plant 4*	Item
	Ground Improvement –Dynamic Compaction	
48 49 50	Dynamic compaction 26* 27* 12* Dynamic compaction plant standing time 26* 27* 12* Granular blanket 26* 27* 12*	m hr t

	Gabion Walling and Mattresses	
51 52	Gabion walling 28* 29* 16* 31* Mattresses 28* 29* 16* 30* 31*	m³ m³
	Crib Walling	
53	Crib Walling 9* 32* 33* 34* 16*	m²
	Filling and Caps to Mine Working, Well, Swallow Hole and the Like	
54 55	Filling 35* 16* Caps 35* 24*	t m³
	Ground Anchorages & Soil Nails - Ground Anchorage & Soil Nail Plant	
56	Establishment of ground anchorage & soil nail plant 4*	Item
	Ground Anchorages & Soil Nails	
57	Ground anchorages & soil nails 9* 36* 37* 38*	m
	Ground Anchorages – Waterproofing Anchorage Boreholes	
58	Waterproofing of boreholes 40*	m
	Instrumentation and Monitoring – Boring Plant	
59	Establishment of boring plant 4*	Item
	Instrumentation and Monitoring – Boring Holes	
60	Boring holes 41* 42*	m
	Instrumentation and Monitoring – Instrumentation	
61 62 63	Installation of instruments 9* 43* Installation of tubing and cabling 9* 43* Grouting 9* 43*	no. m m
	Instrumentation and Monitoring – Instrument Hut or Cabinet	
64 65 66	Erection 44* 45* Servicing 44* 45* Dismantling 44* 45*	Item Item Item
	Instrumentation and Monitoring – Monitoring Equipment	
67	Monitoring equipment 9*	Item
	Ground Water Lowering	
68	Ground Water Lowering 4*	Item
	Trial Pits	
69 70	Move equipment to trial pit location Trial Pits 46*	no. m³

Breaking up and Perforation of Redundant Pavements

71	Breaking up of redundant pavements 9* 47*	m²
72	Perforation of redundant payements 9* 47*	m²

Perforation of Redundant Pavements Slabs, Basements and the like

Perforation of redundant slabs, basements and the like 9* 47*

	73	renoration of redundant stabs, basements and the like 3 47
Group	No.	Variables
1*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l)	No Entry Cutting and other excavation Structural Foundations Foundations for corrugated steel buried structures and the like New watercourses Enlarged watercourses Intercepting ditches Clearing abandoned watercourses Removal of Surcharge Gabion walling and mattresses Crib walling Caps to mine working, well, swallow hole and the like Swamps, marshes and bogs
2*	(a) (b) (c)	No Entry 0 metres to 3 metres in depth [3]m to [6]m in depth (steps of 3m)
3*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	No Entry Cutting and other excavation Structural Foundations Foundations for corrugated steel buried structures and the like New watercourses Enlarged watercourses Intercepting ditches Clearing abandoned watercourses Gabion walling and mattresses Crib walling Caps to mine working, well, swallow hole and the like
4*	(a) (b)	No Entry [Stated different locations]
5*	(a) (b)	No Entry [Into different stated classes of acceptable material]
6*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m)	No Entry Embankments and other areas of fill Strengthened embankments Reinforced earth structures Anchored earth structures Landscape areas and screening mounds Environmental bunds Fill to structures Fill above structural concrete foundations Fill on capping, sub-base material and roadbase Fill on bridges (under footways, verges and central reserves) Upper bedding to corrugated steel buried structures and the like Lower bedding to corrugated steel buried structures and the like

- (n) Surround to corrugated steel buried structures and the like
- (o) Fill above corrugated steel buried structures and the like
- 7* (a) No Entry
 - (b) General fill
 - (c) [Stated different types]
- 8* (a) No Entry
 - (b) Cement
 - (c) Lime
 - (d) [Stated different types]
- 9* (a) No Entry
 - (b) [Stated different types]
- 10* (a) No Entry
 - (b) [Stated different grades]
- 11* (a) No Entry
 - (b) Below cuttings or under embankments
 - (c) In side slopes
 - (d) Below structural foundations and foundations for corrugated steel buried structures
- 12* (a) No Entry
 - (b) Acceptable material
 - (c) Acceptable material Class 1C
 - (d) Acceptable material Class 6B
 - (e) Well graded granular material
 - (f) Uniformly graded granular material
 - (g) Coarse granular material
 - (h) Wet cohesive material
 - (i) Dry cohesive Material
 - (j) Stony cohesive material (High Fines Content)
 - (k) Stony cohesive material (Low Fines Content)
 - (I) Silty cohesive material
 - (m) Imported topsoil
 - (n) Imported turf
 - (o) Selected well graded granular material
 - (p) Selected coarse granular material
 - (q) Selected uniformly graded granular material
 - (r) Selected granular material
 - (s) Selected uniformly graded granular material
 - (t) Class 1 material
 - (u) Class 2 material
 - (v) Class 1A
 - (w) Class 1B
 - (x) Class 1C
 - (y) Class 2A(z) Class 2B
 - (z) Class 2B (aa) Class 2C
 - (aa) Class 20
 - (bb) Class 2D (cc) Class 2E
 - (dd) Class 3
 - (ee) Class 4
 - (ff) Class 6A
 - (gg) Class 6B
 - (hh) Class 6C
 - (ii) Class 6D
 - (jj) Class 6E
 - (kk) Class 6F1
 - (II) Class 6F2
 - (mm) Class 6F3

Class 6G (nn) (00)Class 6H Class 6I (pp) Class 6J (qq) Class 6K (rr) Class 6L (ss) (tt) Class 6M Class 6N (uu) (vv) Class 6P Class 6Q (ww) Class 6R (xx)Class 7A (yy) Class 7B (zz) Class 7C (aaa) (bbb) Class 7D (ccc) Class 7E (ddd) Class 7F Class 7G (eee) (fff) Class 7H (ggg) Class 7I (hhh) Class 8 (iii) Class 9A (jjj) Class 9B (kkk) Class 9C (III)Class 9D Class 9E (mmm) Class 9F (nnn) (000) [Stated different types of acceptable material] 13* (a) No Entry Sewer or drain (b) Cable (c) Duct (d) Pipeline (e) **Basement** (f) (g) Gully [Stated type of service] (h) 14* No Entry (a) [Stated internal diameter] (b) [Stated external diameter] (c) [Stated different sizes] (d) 15* No Entry (a) (b) Disused service with 1m or less of cover to formation level Disused service exceeding [1]m and not exceeding [2]m of cover to formation level (steps of 1m) (c) Disused basement, cellar and the like (d) Disused gully (e) [Stated different type] (f) 16* No Entry (a) Sand (b) In situ concrete [stated grade] (c) Acceptable material except class 5A (d) Class 6G (e) [Stated different fill materials] (f) 17* (a) No Entry (b) Disused basement, cellar and the like (c) Disused gully [Stated different type] (d)

18*	(a) (b) (c) (d)	No Entry Timber Steel [Stated different type]
19*	(a) (b) (c) (d)	No Entry Trench sheeting Sheet piling [Stated type of supports]
20*	(a) (b) (c)	No Entry Surfaces sloping at 10° or less to the horizontal Surfaces sloping at more than 10° to the horizontal
21*	(a) (b) (c)	No Entry Turfing in two layers [Stated different layers]
22*	(a) (b)	No Entry [Stated different mixtures]
23*	(a) (b) (c)	No Entry To inverts To side slopes
24*	(a) (b) (c) (d) (e) (f) (g)	No Entry Precast concrete units In situ concrete [stated grade] Uncoursed random rubble Coursed random rubble Bagwork [Stated material]
25*	(a) (b) (c) (d) (e) (f)	No Entry 25mn 50mm 75mm 100mm [steps of 25mm] [Stated different thicknesses]
26*	(a) (b) (c)	No Entry Trial compaction Main compaction
27*	(a) (b)	No Entry [Stated different weight of pounder]
28*	(a) (b) (c) (d)	No Entry plastic coated galvanized wire geomesh [Stated different mesh materials]
29*	(a) (b)	No Entry [Stated different mesh size]
30*	(a) (b) (c)	No Entry Mattresses installed at 10° or less to the horizontal Mattresses installed at more than 10° to the horizontal
31*	(a) (b)	No Entry In environmental bunds

32*	(a) (b)	No Entry Curved on plan
33*	(a) (b)	No Entry With a battered face
34*	(a) (b) (c) (d)	No Entry surface finish Class F1 surface finish Class F2 [Stated different finishes]
35*	(a) (b) (c) (d)	No Entry Mine working Well Swallow hole and the like
36*	(a) (b)	No Entry [Stated different capacities]
37*	(a) (b) (c)	No Entry Not exceeding 5m in length Exceeding [5]m in length but not exceeding [10]m in length (steps of 5m)
38*	(a) (b) (c)	No Entry Trial anchorages / nails Main anchorages / nails
39*	(a) (b)	No Entry [Stated material]
40*	(a) (b) (c) (d)	No Entry Standard grouting Pressure grouting [Different types of grouting]
41*	(a) (b) (c)	No Entry Vertical Raking
42*	(a) (b) (c)	No Entry Depth not exceeding 10m Depth exceeding [10]m but not exceeding [20]m in length (steps of 10m)
43*	(a) (b) (c)	No Entry Length or depth not exceeding 10m Length or depth exceeding [10]m but not exceeding [50]m in length (steps of 50m)
44*	(a) (b) (c)	No Entry Instrument hut for the Employer's Representative Instrument cabinet for the Employer's Representative
45*	(a) (b) (c)	No Entry Until completion of the Works After completion of the Works
46*	(a) (b) (c)	No Entry 0m to 2m in depth [2]m to [4]m in depth (steps of 2m)
47*	(a) (b)	No Entry Depth not exceeding 100mm

(c) Depth exceeding [100]mm but not exceeding [200]mm in length (steps of 100mm)

Series 700 Pavements

Item	Root Narrative	Unit
	Sub-base	
1	Sub base 1* 2*	m³
	Pavement	
2 3 4 5 6 7	Pavement base 1* 3* 17* 2* 4* Pavement lower base 1* 3* 17* 2* 4* Pavement upper base 1* 3* 17* 2* 4* Pavement binder course 1* 3* 17* 2* 4* Pavement surface course 1* 3* 17* 2* 4* Pavement concrete slab 1* 3* 17* 2* 4*	m² m² m² m² m² m²
	Regulating Course	
8 9	Bituminous regulating material 1* 5* Cement bound bituminous regulating material 1* 5*	t / m³ m³
	Surface Treatment	
10 11 12 13	Micro surfacing 6* 7* 8* Surface dressing 6* 7* 8* High friction surfacing 6* 7* 8* Retexturing 6* 7* 8*	m² m² m² m²
	Bond Coat	
14	Bond Coat 6* 8*	m²
	Cold Milling	
15	Milling 3*	m²
	Reinstatement of Paved Areas	
16	Reinstatement of paved area 10* 3*	m²
	Repairs to Existing Concrete Carriageway	
17 18	Thin bonded repairs 11* 12* 3* Joint repairs 11* 13* 3*	m² m
	Geotextiles and Geotextile-related Products	
19	Geotextile and geotextile-related products 6* 14*	m²
	Repair Systems	
20	Repair Systems 15* 16* 3* 2*	m²

Group	No.	Variables
1*	(a)	No Entry
	(b)	Granular material [stated type]
	(c)	Clause 802 unbound mixtures
	(d)	Clause 809 unbound mixtures
	(e)	Clause 820 aggregates for HBM
	(f)	Clause 821 cement bound granular mixture A (CBGM A)
	(g)	Clause 822 cement bound granular mixture B (CBGM B)
	(h)	Clause 823 cement bound granular mixture C (CBGM C)
	(i)	Clause 824 soil cement (SC)
	(j)	Asphalt concrete [stated type/design mix]
	(k)	Hot rolled asphalt [stated type/design mix]
	(l)	Stone mastic asphalt [stated type/design mix] Porus asphalt [stated type/design mix]
	(m) (n)	Reclaimed asphalt [stated type/design mix]
	(o)	Wet lean concrete [stated type/design mix]
	(p)	Slag bound mixture [stated type/design mix]
	(p)	Fly ash bound mixture [stated type/design mix]
	(r)	Hydraulic road binder bound mixture [stated type/design mix]
	(s)	Soil treated by cement [stated type/design mix]
	(t)	Soil treated by slag [stated type/design mix]
	(u)	Soil treated by fly ash [stated type/design mix]
	(v)	[Stated different types]
	(w)	[Stated different groups]
2*	(a)	No Entry
	(b)	In carriageway, hardshoulder and hardstrip
	(c)	In emergency crossing
	(d)	In lay-by and bus bay
3*	(a)	No Entry
	(b)	10mm
	(c)	14mm
	(d)	18mm
	(e)	22mm
	(f) (g)	26mm 30mm
	(b)	34mm
	(i)	38mm
	(i)	42mm
	(k)	[Stated different thicknesses or depths]
4*	(a)	No Entry
	(b)	In overlay
5*	(a)	No Entry
	(b)	Lower base
	(c)	Upper base
	(d)	Base
	(e)	Binder course
	(f)	Surface course
6*	(a)	No Entry
	(b)	[stated type, material or specification reference]

This document is provided for information only and shall not be considered a contractual document. Responsibility for proper compilation

7*	(a) (b) (c) (d) (e) (f) (g)	No Entry Red Blue Green Yellow Black [Stated different colours]
8*	(a) (b)	No Entry [Stated different rates of spread]
9*	(a) (b)	No Entry [Stated different materials]
10*	(a) (b)	No Entry [Unique type of pavement]
11*	(a) (b)	No Entry [unique type]
12*	(a) (b)	No Entry Individual areas not exceeding 1m² on plan Individual areas exceeding [1]m² but not exceeding [2]m² on plan (steps
	(c)	of 1m²)
13*	(a) (b)	No Entry Individual lengths not exceeding 1m
	(c)	Individual lengths exceeding [1]m but not exceeding [2]m (steps of 1m)
14*	(a) (b)	No Entry [Stated different grades]
15*	(a) (b)	No Entry [Stated repair material or system]
16*	(a) (b) (c) (d)	No Entry Base Binder course Surface course
17*	(a) (b)	No Entry Reinforced

Series 1100 Kerbs, Footways and Paved Areas

Item	Root Narrative	Unit
	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems	
1 2 3 4 5	Kerbs 1* 2* Channels 1* 2* Edgings 1* 2* Combined drainage and kerb blocks 1* 2* Linear drainage channel systems 1* 2*	m m m m
	Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems	
6 7 8 9 10	Additional concrete to kerbs 3* Additional concrete to channels 3* Additional concrete to edgings 3* Additional concrete to combined drainage and kerb block 3* Additional concrete to linear drainage systems 3*	m³ m³ m³ m³
	Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Systems	
11 12 13	Remove from store and relay kerbs 1* 2* Remove from store and relay channels 1* 2* Remove from store and relay edgings 1* 2*	m m m
14	Remove from store and relay combined drainage and kerb blocks 1* 2*	m
15	Remove from store and relay linear drainage channel systems 1* 2*	m
	Footways and Paved Areas	
16 17 18 19	Footways 4* 5* 6* 7* Paved areas 4* 5* 6* 7* Bituminous regulating course 8* Cement bound regulating course 9*	m² m² t m³
	Remove from Store and Relay Paving Flags and Blocks	
20 21	Remove from store and relay paving in footways 4* 5* 6* 7* Remove from store and relay paving in paved areas 4* 5* 6*7*	m² m²
	Steps	
22	Flight of steps 10*	no.
	Remove from Store and Re-erect Street Furniture	
23	Remove from store and re-erect street furniture 11*	no.

Group	No.	Variables
1*	(a)	No Entry
	(b)	Kerbs, Footways and Paved Areas - Precast Kerbs (CC-SCD-01101) - Type A
	(c)	Kerbs, Footways and Paved Areas - Precast Kerbs (CC-SCD-01101) - Type B
	(d)	Kerbs, Footways and Paved Areas - Precast Kerbs (CC-SCD-01101) - Type C
	(e)	Kerbs, Footways and Paved Areas - Precast Kerbs (CC-SCD-01101) - Type D
	(f)	Kerbs, Footways and Paved Areas - In Situ Concrete Kerb (CC-SCD-01102) - Concrete Kerb
	(g)	Kerbs, Footways and Paved Areas - In Situ Concrete Kerb (CC-SCD-01102) - Drop Kerb
	(h)	Kerbs, Footways and Paved Areas - Dropped Kerb Ramp (CC-SCD-01103)
	(i)	Kerbs, Footways and Paved Areas - Non Trafficked Block Paving (CC-SCD-01106)
	(j)	Kerbs, Footways and Paved Areas - Nosing Detail (CC-SCD-01107)
	(k)	Kerbs, Footways and Paved Areas - Typical Paved Roundabout (CC-SCD-01108)
	(1)	Precast Kerbs - Precast Kerb Units (CC-SCD-01109)
	(m)	Kerbs, Footways and Paved Areas - Typical Paved Roundabout (CC-SCD-01108)
	(n)	Precast Kerbs - Precast Kerb Units (CC-SCD-01109) - Type 1
	(o)	Precast Kerbs - Precast Kerb Units (CC-SCD-01109) - Type 2
	(p)	Precast Kerbs - Precast Kerb Units (CC-SCD-01109) - Type 3
	(q)	Kerbs, Footways and Paved Areas: Channelising Island Detail (CC-SCD-01110)
	(r)	Drainage - Drainage Channel Blocks (CC-SCD-00523) - Type A
	(s)	Drainage - Drainage Channel Blocks (CC-SCD-00523) - Type B
	(t)	Drainage - Drainage Channel Blocks (CC-SCD-00523) - Type C
	(u)	Drainage - Drainage Channel Blocks (CC-SCD-00524) - Type D
	(v)	Drainage - Drainage Channel Blocks (CC-SCD-00524) - Type E
	(w)	Drainage - Drainage Channel Blocks (CC-SCD-00524) - Type F
	(x)	Drainage - In-Line Outlet to Triangular Surface Water Channel (CC-SCD-00526)
	(y)	Drainage - In-Line Outlet to Trapezoidal Surface Water Channel (CC-SCD-00527)
	(z)	Drainage - Weir Outlet to Surface Water Channel (CC-SCD-00528)
	(aa)	Drainage - Edge of Pavement Drains - Under Channel Drainage Layers (CC-SCD-00543)
	(bb)	Edge of Pavement Details - Carriageway in Cutting or on Embankment Nearside Verge Detail with Surface Water Channel (CC-SCD-00103) Edge of Pavement Details - Carriageway in Cutting or on Embankment
	(cc)	Nearside Verge Detail with Grassed Surface Water Channel (CC-SCD-00104)
	(dd)	Edge of Pavement Details - Carriageway on Embankment Nearside Verge Detail with External Kerbs and Drainage Channel Blocks (CC-

SCD-00107) - Type 21 E

- Edge of Pavement Details Carriageway on Embankment Nearside
- (ee) Verge Detail with External Kerbs and Drainage Channel Blocks (CC-SCD-00107) Type 21 G
 - Edge of Pavement Details Carriageway on Embankment Nearside
- (ff) Verge Detail with External Kerbs and Drainage Channel Blocks (CC-SCD-00107) Type 21 F Edge of Pavement Details - Carriageway on Embankment Nearside
- (gg) Verge Detail with External Kerbs and Drainage Channel Blocks (CC-SCD-00107) Type 21 H
 Edge of Pavement Details Carriageway in Cutting Nearside Verge
- (hh) Detail with Drainage Channel Blocks and Drains (CC-SCD-00108) Type 4A
- Edge of Pavement Details Carriageway in Cutting Nearside Verge
 (ii) Detail with Drainage Channel Blocks and Drains (CC-SCD-00108) Type
 4B
- Edge of Pavement Details Carriageway in Cutting Nearside Verge

 (jj) Detail with Drainage Channel Blocks and Drains (CC-SCD-00108) Type
- 4C
 Edge of Pavement Details Carriageway in Cutting Nearside Verge
- (kk) Detail with Drainage Channel Blocks and Drains (CC-SCD-00108) Type 4D
- (II) Edge of Pavement Details Combined Kerb and Drainage System (CC-SCD-00109) Type 25A
- (mm) Edge of Pavement Details Combined Kerb and Drainage System (CC-SCD-00109) Type 25B
- (nn) Edge of Pavement Details Central Reserve Surface Water Channel for Flexible Carriageway (CC-SCD-00110) Type 13A
- (oo) Edge of Pavement Details Central Reserve Surface Water Channel for Flexible Carriageway (CC-SCD-00110) Type 13B
- (pp) Edge of Pavement Details Central Reserve Surface Water Channel for Flexible Carriageway (CC-SCD-00110) Type 13C
- (qq) Edge of Pavement Details Central Reserve Drainage Channel Blocks and Drains (CC-SCD-00111) Type 14
- (rr) Edge of Pavement Details Central Reserve Drainage Channel Blocks and Drains (CC-SCD-00111) Type 15
- (ss) Edge of Pavement Details Central Reserve Drainage Channel Blocks and Drains (CC-SCD-00111) Type 16
- (tt) Edge of Pavement Details Central Reserve Detail of Superelevated Carriageways with Concrete Barrier Restraint (CC-SCD-00112)
- (uu) Edge of Pavement Details Cross Section of Concrete Surface Water Channel (CC-SCD-00522)
- (vv) Pavement Free Pavement Edge Detail (CC-SCD-00701) Type 1A
- (ww) Pavement Free Pavement Edge Detail (CC-SCD-00701) Type 1B
- (xx) Pavement Free Pavement Edge Detail (CC-SCD-00701) Type 2
- (yy) Pavement Free Pavement Edge Detail (CC-SCD-00701) Type 3
- (zz) Pavement Kerbed Pavement Edge Detail (CC-SCD-00702) Precast Concrete Kerb
- (aaa) Pavement Kerbed Pavement Edge Detail (CC-SCD-00702) -In-Situ Concrete Kerb
- (bbb) [Stated specified permitted alternative materials and designs]
- (ccc) [Stated different materials and designs]

2* No Entry (a) (b) Straight or curved exceeding 12 metres radius Curved not exceeding 12 metres radius (c) 3* (a) No Entry [Stated different mixes classes or grades] (b) 4* (a) No Entry Kerbs, Footways and Paved Areas - Bituminous Footway (CC-SCD-(b) 01104) - Type 1 Kerbs, Footways and Paved Areas - Bituminous Footway (CC-SCD-(c) 01104) - Type 2 Kerbs, Footways and Paved Areas - Concrete Footway (CC-SCD-01105) (d) - Type 1 Kerbs, Footways and Paved Areas - Concrete Footway (CC-SCD-01105) (e) - Type 2 Kerbs, Footways and Paved Areas - Non Trafficked Block Paving (CC-(f) SCD-01106) Kerbs, Footways and Paved Areas: Channelising Island Detail (CC-SCD-(g) 01110) (h) [Stated different types of construction] 5* No Entry (a) [Stated different thicknesses] (b) 6* (a) No Entry [Stated different sizes, groups or types] (b) 7* (a) No Entry (b) Surfaces sloping at 10° or less to the horizontal Surfaces sloping at more than 10° to the horizontal (c) 8* (a) (b) [Stated different groups or type of bituminous regulating course] 9* (a) (b) [Stated different groups or type of cement bound regulating course] 10* No Entry (a) [Stated different locations] (b) 11* (a) No Entry (b) [Stated different types of street furniture]

Series 1200 Traffic Signs and Road Markings

Item	Root Narrative	Unit
	Traffic Signs	
1	Permanent traffic sign 1* 2* 3* with sign face 22* in area, to be mounted on 5* 16* 17* in length and 18* in diameter	no.
2	Employer's temporary traffic sign 1* 2* 3* with sign face 22* in area, to be mounted on 5* 16* 17* in length and 18* in diameter	no.
3	Contractor's temporary traffic sign 1* 2* 3* with sign face 22* in area, to be mounted on 5* 16* 17* in length and 18* in diameter	no.
	Remove from Store and Re-erect Traffic Signs	
4	Remove from store and re-erect traffic signs 1^* 2^* 3^* with sign face 22^* in area, to be mounted on 5^* 16^* 17^* in length and of 18^*	no.
	Road Markings	
5	Removal of solid areas 6* 7* 8* 20* 9* 10*	m²
6 7	Marking of solid areas 6* 7* 8* 20* 9* 10* Removal of 11* 6* 7* 8* 20* 9* 10* with ribs at 15* centres	m² m
8	Marking of 11* 6* 7* 8* 20* 9* 10* with ribs at 15* centres	m
9	Removal of 12* 6* 7* 8* 20* 9* 10* Marking of 12* 6* 7* 8* 20* 9* 10*	no.
10	Retro reflecting Road Studs	no.
	Ketro renecting Koad Stads	
11	Retro reflecting road studs 4* 21* 9*	no.
	Remove from Store and Re-install Retro reflecting Road Studs	
12	Remove from store and re-install retro reflecting road studs 4* 21*	no.
	Traffic Signal Poles	
13	Traffic signal pole 19* 4*	no.
	Traffic Signal Heads	
14	Traffic Signal Head 19*	no.
	Traffic Signal Pole Box	
15	Traffic Signal Pole Box 19* 4*	no.
	Push Button Unit	
16	Push Button Unit 19*	no.
	Remove from Store and Re-erect Traffic Signal Head	
17	Remove from store and re-erect traffic signal head 19* 4*	no.

Pedestrian Crossings

18 19	Permanent pedestrian crossings 13* Employer's temporary pedestrian crossings 13*	no. no.
	Delineators	
20	Delineators 19* 4*	no.
	Permanent Bollards	
21	Permanent bollards 14* 19* 4*	no.
	Nosing Markers	
22	Nosing markers 19* 4*	no.
	Retro reflective Markers	
23	Retro reflective Markers 19* 9*	no.

Group	No.	Variables
1*	(a) (b) (c)	No Entry Retro reflective Non-retro reflective
2*	(a) (b) (c)	No Entry as lit sign unit as non-lit sign unit
3*	(a) (b) (c)	No Entry [Stated Traffic Signs Manual (TSM) reference number] [Stated authorised reference number]
4*	(a) (b)	No Entry [Stated different sizes]
5*	(a) (b) (c) (d) (e) (f) (g)	No Entry existing one two three four [Stated number of posts]
6*	(a) (b) (c) (d) (e) (f) (g)	No Entry Thermoplastic screed Thermoplastic spray Thermoplastic extrusion Road marking paint Preformed material [Stated different material]
7*	(a) (b) (c) (d) (e) (f) (g)	No Entry [Stated width of line] [Stated different sizes of circles] [Stated different lengths of arrows] [Stated different lengths of kerb markings] [Stated different heights of letters and numerals] [Stated different sizes of symbols]

8*	(a) (b) (c)	No Entry [Stated different lengths of mark and gap for intermittent lines] [Stated different figure numbers for arrows, kerb markings and symbols]
9*	(a) (b) (c) (d) (e) (f) (g) (h)	No Entry Yellow White Red Green Amber Green / yellow [Stated different colour]
10*	(a) (b) (c)	No Entry Reflectorized [Stated different type]
11*	(a) (b) (c) (d) (e) (f)	No Entry Continuous lines Intermittent lines Ancillary lines Raised profile edge lines [Stated different type]
12*	(a) (b) (c) (d) (e) (f) (g) (h)	No Entry Triangle Circle Arrow Kerb marking Letters and numerals Symbol [Stated different type]
13*	(a) (b)	No Entry [Stated different locations]
14*	(a) (b) (c)	No Entry Internally illuminated Non-illuminated
15*	(a) (b)	No Entry [Stated different rib spacing's]
16*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (o)	timber supporting post(s) reinforced concrete post(s) prestressed concrete post(s) rectangular steel post(s) tubular steel post(s) rectangular aluminium post(s) tubular aluminium post(s) passively safe post(s) bridge superstructure building gantry lighting column wall [Stated type of existing structure from which the sign is to be mounted on]

17* No Entry (a) [Stated total length of post(s) or support(s)] (to be measured from top of the sign to (b) bottom of the foundation if any) 18* No Entry (a) (b) [Stated diameter of the post(s) or support(s)] 19* (a) No Entry (b) [Stated type] 20* No entry (a) [Stated other non TSM road marking reference number] (b) RRM 001 Continuous Single Centre Line (c) (d) RRM 002A & B Broken Centre Line (e) RRM 002C & D Centre Warning Line (f) RRM 003A & B Lane Line RRM 003C Modified Lane Line (g) RRM 004 Direction Arrow - Straight Ahead (h) (i) RRM 005 Direction Arrow - Left (j) RRM 006 Direction Arrow - Right RRM 007 Single Yellow Line (k) RRM 008 Double Yellow Line (I) (m) RRM 009 Loading Bay (n) RRM 010 School Keep Clear (o) RRM 011 Parking Bays - Parallel RRM 012 Parking Bays - Parallel with Buffer Zone (p) RRM 013 Parking Bays - Perpendicular (q) (r) RRM 014 Parking Bays - Angled RRM 015 Disabled Persons Symbol (s) RRM 016 Parking Bays - Unsegregated (t) (u) RRM 017 Stop Line (v)RRM 018 Yield Line (w) RRM 018C Cycle Track Yield Line (x) RRM 019 No Entry Line (y) RRM 020 Yellow Box Marking RRM 021 Hatch Marking (z) (aa) RRM 022 Cycle Track Edge Line RRM 023 Cycle Track Broken Edge Line (bb) RRM 024 Bus Lane Line and LÁNA BUS Marking (cc) (dd) RRM 025 Edge of Carriageway Line (Broken) (ee) RRM 026 Edge of Carriageway Line (Continuous) (ff) RRM 027 Edge of Carriageway Line (Continuous White) (gg) RRM 028 Merge/Diverge Lane Line (hh) RRM 029 Taxi Rank Marking (ii) RRM 030 Bus Stop Marking (jj) RRM 031 Tram Stop Line (kk) RRM 032 Tram Lane Line RRM 033 Mini-Roundabout Marking (II)(mm) M 100 Deflection Arrow (Left) M 101 Deflection Arrow (Right) (nn) (00)M 102 Bifurcation Arrow M 103 Two-Lane Arrow (pp) (qq) M 104 Diagonal Hatch Marking within Double Line System (rr) M 105 Lane Destination Marking (ss) M 106 SLOW Worded Marking (tt) M 107L & R LOOK LEFT / LOOK RIGHT Marking M 108 Speed Marking (uu) M 109 LÁNA TRAM Worded Marking (vv)M 110 Swept Path Marking (ww) (xx)M 111 Pedestrian Symbol

M 112 Traffic Calming Triangle (yy) M 113 Yellow Bar Markings (zz) M 114 STOP Worded Marking (aaa) (bbb) M 115 Triangular Yield Marking M 115C Cycle Track Triangular Yield Marking (ccc) (ddd) M 116 Cycle Symbol (eee) M 117 Cycle Track Direction Arrow - Left (fff) M 118 Cycle Track Direction Arrow - Straight Ahead M 119 Cycle Track Direction Arrow - Right (ggg) M 120 Chainage and Emergency Telephone Marking (hhh) M 121 School Crossing Patrol Point (iii) M 122 Exit Boundary Line at Level Crossing (jjj) M 123 Back of Footway Line at Level Crossing (kkk) (III)M 124 Direction Arrow - Ahead & Left (mmm) M 125 Direction Arrow - Ahead & Right (nnn) M 126 Direction Arrow - Left & Right M 127 Airport Destination Marking (000) M 128 Ferry Port Destination Marking (ppp) M 129 Broken Bus Lane Line (qqq) M 130 Bus Lane Ends Arrow (rrr) M 130L & R Bus Lane Ends Arrow - L and R Variants (sss) (ttt) M 131 Pedestrian Line (uuu) RPC 001 Zebra Pedestrian Crossing (vvv) RPC 002 Zigzag Markings 21* No entry (a) Uni-directional Square (b) Uni-directional Circular (c) (d) Uni-directional Rectangular Bi-directional Square (e) (f) Bi-directional Circular Bi-directional Recatangular (g) [Stated type] 22* (a) No entry [Stated different sizes] (b) 23* (a) [Stated other authorised reference] (b) [Stated TSM reference number] RTS 001 (c) RTS 002 (d) RTS 003 (e) RTS 004 (f) RTS 005 (g)**RTS 006** (h) **RTS 007** (i) (i) **RTS 008** (k) RTS 009 **RTS 010** (I) RTS 011 (m) RTS 012 (n) RTS 013 (0)(p) S 101 S 102 (q) S 103 (r) S 104L (s) (t) S 104R S 105 (u) **RPC 001** (v) **RPC 003** (w) **RPC 004** (x)

- 24* (a) [Stated TSM sign reference number]
 - (b) [Stated non TSM sign reference authorised number]
 - (c) RUS 001 Keep Left
 - (d) RUS 002 Keep Right
 - (e) RUS 003 Pass Either Side
 - (f) RUS 004 Keep Straight Ahead
 - (g) RUS 005 Turn Right
 - (h) RUS 006 Turn Left
 - (i) RUS 007 Turn Left Ahead
 - (j) RUS 008 Turn Right Ahead
 - (k) RUS 009 Cycles Only
 - (I) RUS 010 Clearway
 - (m) RUS 011 No Straight Ahead
 - (n) RUS 012 No Right Turn
 - (o) RUS 013 No Left Turn
 - (p) RUS 014 No Overtaking
 - (q) RUS 015 Maximum Gross Weight (Traffic Management)
 - (r) RUS 016 Height Restriction
 - (s) RUS 017 No U-Turn
 - (t) RUS 018 Parking Permitted
 - (u) RUS 0 No Parking
 - (v) RUS 020 Taxi Stand
 - (w) RUS 021 Pedestrianised Street
 - (x) RUS 026 Yield/Géill Slí
 - (y) RUS 027 Stop
 - (z) RUS 028 With-Flow Nearside Bus Lane
 - (aa) RUS 029 With-Flow Offside Bus Lane
 - (bb) RUS 030 Contra-Flow Bus Lane
 - (cc) RUS 031 Bus Stop
 - (dd) RUS 032 School Warden
 - (ee) RUS 033 LRT Speed Limit
 - (ff) RUS 034 LRT Stop
 - (gg) RUS 035 LRT Yield
 - (hh) RUS 036 Nearside Tram Lane
 - (ii) RUS 037 Offside Tram Lane
 - (jj) RUS 038 No Pedestrians (for Tramway use only)
 - (kk) RUS 039 Speed Limit 120km/h
 - (II) RUS 040 Speed Limit 100km/h
 - (mm) RUS 041 Speed Limit 80km/h
 - (nn) RUS 042 Speed Limit 60km/h
 - (oo) RUS 043 Speed Limit 50km/h
 - (pp) RUS 044 Speed Limit 30km/h
 - (qq) RUS 045 Periodic Speed Limit
 - (rr) RUS 046 Prohibited Number of Axles
 - (ss) RUS 047 Prohibited Axles in Right Hand Lane
 - (tt) RUS 049 Mini-Roundabout
 - (uu) RUS 050 No Entry
 - (vv) RUS 051 Maximum Vehicle Length
 - (ww) RUS 052 Maximum Vehicle Width
 - (xx) RUS 053 Maximum Gross Weight (Safety)
 - (yy) RUS 054 Maximum Axle Weight
 - (zz) RUS 055 No Cycles
 - (aaa) RUS 056 No Animals

(bbb) RUS 057 No Horse and Cart RUS 058 Shared Track for Pedal Cycles and Pedestrians (ccc) (ddd) RUS 058CL Segregated Pedal Cycle and Pedestrian Route (Cycle Track on Left) (eee) RUS 058CR Segregated Pedal Cycle and Pedestrian Route (Cycle Track on Right) (fff) RUS 059 Contra-Flow Cycle Lane RUS 060 STOP (Manual control) (ggg) (hhh) RUS 061 GO/Teigh (Manual control) RUS 062 No Vehicles Carrying Explosives (iii) **RVMS 100 Road Tunnel Speed Limit** (iii) **RVMS 102 Variable Speed Limit** (kkk) (III)F 204 Disabled Persons" Parking (mmm) F 360 Start Of Nearside With-Flow Bus Lane F 361 Start Of Offside With-Flow Bus Lane (nnn) (000)P 001 Distance (ppp) P 002 Length P 010 End (qqq) P 050 Exceptions (rrr) (sss) P 051 Periods of Operation (ttt) P 052 Pedestrian Zone (uuu) P 053 Parking (vvv) P 054 km/h P 055 24-Hour Operation (www) P 056 Zonal No Parking (xxx) (yyy) P 057 Time Limit 25* (a) No entry (b) W 001 Crossroads W 002 Side Road (c) (d) W 003 T-junction (Type 1) W 004 T-junction (Type 2) (e) W 005 Y-junction (f) W 006 Crossroads at Sharp Corner (g) W 007 Staggered Junctions (h) W 008 Two Junctions on Same Side (i) W 009 Side Road on Outside of Bend (j) W 010 Side Road on Inside of Bend (k) W 011 Crossroads on Bend (I) W 012 Side Road on Dual Carriageway (With Central Reserve Break) (m) W 013 Side Road on Dual Carriageway (No Central Reserve Break) (n) W 014 Crossroads on Dual Carriageway (0)W 015 Crossroads (Major Road) Ahead (p) W 016 T-junction (Major Road) Ahead When used at one-way road with RUS 007, RUS 008, RUS 01: (q) W 017 Staggered Crossroads Ahead (r) W 018 Junction With Major Road at Sharp Corner (s) W 019 Crossroads Ahead at Dual Carriageway (t) W 020 T-junction Ahead at Dual Carriageway (With Central Reserve Break) (u) W 021 Staggered Crossroads Ahead at Dual Carriageway (v) W 022 T-junction Ahead at Dual Carriageway (No Central Reserve Break) (w) W 030 Merging Traffic From Left (x) W 031 Merging With Traffic on Right (y) W 032 Merging and Diverging Traffic (z) W 033 Loop (aa) (bb) W 040 Stop Ahead (cc) W 041 Yield Ahead (dd) W 042 Traffic Signals W 043 Roundabout Ahead (ee) W 044 Mini-roundabout Ahead (ff) W 050 Sharp Corner (gg) W 051 Sharp Bend (hh)

W 052 Series of Sharp Corners (ii) W 053 Series of Sharp Bends (jj) W 061 Single Chevron (kk) W 062 Multiple Chevrons (Two) (II)(mm) W 063 Multiple Chevrons (Three) W 070 Road Narrows on One Side (nn) W 071 Road Narrows on Both Sides (00)W 080 Two-way Traffic (pp) W 081 Two-way Traffic Crossing (qq) W 082 Three Lanes of Traffic (Two With, One Against) (rr) W 083 Three Lanes of Traffic (One With, Two Against) (ss) W 091 Lane Loss (Two to One Lane) (tt) W 092 Lane Loss (Three to Two Lanes) (uu) W 093 Lane Loss (Four to Three Lanes) (vv)W 094 Road Divides (ww) W 095 Dual Carriageway Ends (xx)W 100 Start of Passing Lane (yy) W 101 One-Lane Section (zz) W 102 Two-Lane Section (aaa) (bbb) W 103 Start of Climbing lane W 105 Steep Descent (ccc) (ddd) W 106 Steep Ascent (eee) W 110 Restricted Headroom (fff) W 111 Overhead Electrical Cables (ggg) W 112 Maximum Vehicle Length W 113 Maximum Vehicle Width (hhh) W 114 Maximum Gross Weight (Traffic Management) (iii) W 115 Maximum Gross Weight (Safety) (jjj) (kkk) W 116 Maximum Axle Weight (III)W 117 Prohibited Number of Axles (mmm) W 120 Level Crossing With Flashing Red Signals (nnn) W 121 Level Crossing with No Flashing Red Signal (with Barriers or Gates) (000)W 122 Level Crossing Countdown Marker W 123 Risk of Grounding (ppp) W 124 Tram Crossing (qqq) W 125 Tram Advisory Speed (rrr) W 130 Road Hump (sss) (ttt) W 131 Road Depression (uuu) W 132 Humpback Bridge W 133 Uneven Road (vvv) (www) W 134 Slippery Road W 135 Soft Verge (xxx) (yyy) W 140 Pedestrians (zzz) W 141 School Ahead W 142 Children Crossing (aaaa) W 143 Cyclists (bbbb) (cccc) W 144 Slippery for Cyclists W 150 Accompanied Horses (dddd) W 151 Cattle or Farm Animals (eeee) (ffff) W 152 Sheep W 153 Deer or Wild Animals (gggg) W 160 Unprotected Water (hhhh) W 161 Ford (iiii) W 162 Tunnel (jjjj) W 163 Queues Likely (kkkk) (IIII)W 164 Falling Rocks (mmmm) W 165 Low-flying Aircraft (nnnn) W 166 Crosswind W 167 Opening Bridge (0000) (pppp) W 168 Tractors (pppp) W 169 Drive on Left W 170 Other Hazard (rrrr)

W 180 Hazard Marker

W 181 Nosing Marker

(ssss) (tttt)

(uuuu) W 183 Barrier Board (Three Bars) (vvvv) W 184 Barrier Board (Four Bars) (wwww) W 185 Barrier Board (Five Bars) (xxxx) W 186 Safety Barrier Reflector (yyyy) P 001 Distance P 002 Length (ZZZZ) (aaaaa) P 003 Direction (bbbbb) P 004 Direction and Distance (cccc) P 005 Both Ways P 011 Cautionary Speed (ddddd) (eeeee) P 040 Reduce Speed Now (fffff) P 060 Oncoming Traffic in Middle of Road P 061 Another Train Coming (ggggg) P 062 Long Low Vehicles (hhhhh) P 063 Traffic Calming Ahead (iiiii) P 064 Tram Tracks (jjjjj) P 065 Oil Spill (kkkkk) (IIII) P 066 Ice (mmmmm) P 067 Safe Headroom (nnnnn) P 068 Turn Engine Off When Stopped (00000) P 069 Hazard P 070 Hazard - Direction and Distance (ppppp)

Series 1300 Road Lighting Columns and Brackets

	Item	Root Narrative	Unit
		Road Lighting Columns, Brackets and Wall Mountings	
	1 2	8* road lighting column of 1* 9* and 2* with 4* 3* 5* 6* 10* 7* wall mounting 9* 2* with 4* 3* 5* 6*	no. no.
	2	10 7 Wall mounting 9 2 With 4 3 3 0	110.
		Remove from Store and Re-erect Road Lighting Columns, Brackets and Wall Mountings	
	3	Remove from store and re-erection of 8^* road lighting column of 1^* 9^* and 2^* with 4^* 3^* 5^* 6^*	no.
	4	Remove from store and re-erection of 10* 7* wall mounting 9* 2* with 4* 3* 5* 6*	no.
Group	No.	Variables	
1*	(a)	No Entry	
	(b)	[Stated a different height]	
2*	(a)	No Entry	
	(b)	having a projection of 0.5m	
	(c)	having a projection of 1m	
	(d)	having a projection of 1.5m	
	(e)	having a projection of 2m	
	(f)	having a projection of 2.5m	
	(g)	having a projection of 3m	
	(h)	[Stated different projection of bracket]	
3*	(a)	No Entry	
	(b)	incorporating a 35 w SOX lamp	
	(c)	incorporating a 55 w SOX lamp	
	(d)	incorporating a 90 w SOX lamp	
	(e)	incorporating a 135 w SOX lamp	
	(f)	incorporating a 180 w SOX lamp	
	(g)	[Stated different lantern type]	
4*	(a)	No Entry	
	(b)	a luminaire unit	
	(c)	a non cut off luminaire	
	(d)	a semi cut off luminaire	
	(e)	a cut off luminaire	
	(f)	a subway lighting unit	
	(g)	a floodlight	
	(h)	[Stated different type]	
5*	(a)	No Entry	
	(b)	incorporating a low pressure sodium lamp to provide not less than 2000 lumens in the lower hemisphere	
	(c)	incorporating a low pressure sodium lamp to provide not less than 7200 lumens in the lower hemisphere	
	(d)	incorporating a low pressure sodium lamp to provide not less than 12,000 lumens in the lower hemisphere	
	(e)	incorporating a low pressure sodium lamp to provide not less than 20,000 lumens in the	
	(f)	lower hemisphere [Stated lighting intensity]	

6* (a) No Entry (b) and photo-electric control set to switch on at 70 lux (c) and photo-electric control set to switch on at 100 lux (d) and photo-electric control set to switch on at 120 lux (e) and photo-electric control set to switch on at 70 lux (f) and one part photo-electric control unit for luminaire and one part dummy photo-electric control unit for luminaire (g) and two part photo-electric control unit for luminaire (h) (i) [Stated photo-electric control] 7* No Entry (a) (b) surface mounted (c) recessed 8* No Entry (a) steel (b) prestressed concrete (c) (d) reinforced concrete (e) aluminium (f) cast iron glass fibre reinforced plastic (g) (h) [Sated column material] 9* (a) No Entry with single bracket arm (b) with double bracket arm, each arm (c) [Stated different bracket configuration type] (d) 10* (a) No Entry (b) [Stated type]

Series 1400 Electrical Work for Road Lighting and Traffic Signs

ltem	Root Narrative		
	Locating Buried Road Lighting and Traffic Signs Cable		
1	Locating buried road lighting and traffic signs cable 1*	m	
	Cabling		
2 3	Trench for cable 2* 3* 1* 5* Cable 6* 7* 1* 5*	m m	
	Cable Joints and Terminations		
4 5	8* Cable joint 6* 7* 9* Cable termination 6* 7*	no. no.	
	Feeder Pillars		
6	Feeder pillar 4* 5*	no.	
	Earth Electrodes		
7*	Earth electrodes 4* 10*	no.	
	Remove from Store and Re-erect Feeder Pillars		
8*	Remove from store and re-erect feeder pillars 4*	no.	

Group	No.	Variables
1*	(a) (b) (c) (d)	No Entry In carriageways, footways and bridge decks and paved areas In verges, embankments and cuttings In central reserves
2*	(a) (b) (c)	No Entry Depth not exceeding 1.5m Depth exceeding [1.5]m but not exceeding [2]m (steps of 0.5m)
3*	(a) (b)	No Entry [Stated different widths of trench]
4*	(a) (b)	No Entry [Stated different types]
5*	(a) (b)	No Entry Supplied by Transport Infrastructure Ireland
6*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (o) (p)	No Entry 2 core PVC/SWA/PVC 3 core PVC/SWA/PVC 2 core PVC/ASA/PVC 3 core PVC/ASA/PVC 2 core XLPE/SWA/XLPE 3 core XLPE/SWA/XLPE 2 core XLPE/ASA/XLPE 2 core XLPE/ASA/XLPE 2 core XLPE/SWA/MDPE 3 core XLPE/SWA/MDPE 3 core XLPE/ASA/MDPE 2 core XLPE/ASA/MDPE 2 core ALPE/ASA/MDPE 2 core and earth split concentric [Stated different types]
7*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m)	No Entry 6mm2 10mm2 16mm2 25mm2 35mm2 50mm2 70mm2 95mm2 120mm2 150mm2 185mm2 [Stated different sizes]

(b)

8* No Entry (a) (b) Straight joint (c) Tee joint (d) Breeches joint [Stated different type of joint] (e) 9* (a) No Entry Single way cut out (b) 2 way cut out (c) (d) 3 way cut out (e) Looped (f) [Stated different type of termination] 10* (a) No Entry

[Stated different size]

Series 1500 Motorway Communications

Item	Root Narrative	Unit
	Locating Buried Communications Cable	
1	Locating buried communications cable 1*	m
	Communications Cabling and Trench for Communications Cable	
2	Trench for communications cable 2* 3* 1* Communications cable 4* 5* 7* 8* 6* 1*	m m
	Communications Cable Joints and Terminations	
4 5	Communications cable joint 9* 5* 4* 7* 8* Communications cable termination 10* in 11* 5* 4* 7* 8*	no. no.
	Communications Equipment	
6	Communications equipment 12* 14* 15*	no.
	Remove from Store and Re-install Communications Cabling and Equipment	
7 8	Remove from store and re-install cable 4* 5* 7* 8* 6* Remove from store and re-install cabinets, posts, brackets, signal indicators and the like 12* 14*	m no.
9 10	Remove from store and re-install shelves, racking frames and the like 13* 14* Remove from store and re-install electronic units and the like 12* 14*	no. no.
	Loop Detector Installations	
11	Loop detector installations 16* 14* 15*	no.
	Site Records	
12	Site Records	Item
	Stage 2 Commissioning of Cable	
13	Stage 2 commissioning 17* 18*	Item
	Modification of Existing Communications Equipment	
14	Modification to existing communications equipment 12* 14*	Item

Group	No.	Variables	
1*	(a) (b) (c) (d)	No Entry In carriageways, footways and bridge decks and paved areas In verges, embankments and cuttings In central reserves	
	(e)	[Stated other locations]	This is devi
2*	(a) (b) (c)	No Entry Depth not exceeding 1.5m Depth exceeding [1.5]m but not exceeding [2]m (steps of 0.5m)	
3*	(a) (b)	No Entry [Stated different widths of trench]	
4*	(a) (b) (c) (d) (e) (f) (g) (h) (i)	No Entry 0.9mm dia 2.5mm2 6mm2 10mm2 16mm2 25mm2 50 ohms 75 ohms [Stated different sizes of cables]	
5*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (k) (l) (m) (o) (p) (q)	No Entry single core 2 core 3 core 1 pair 2 pair 6 pair 8 pair 12 pair 20 pair 24 pair 30 pair 2 core/3 pair/8 multi mode 2 core/8 pair/8 mono mode Coaxial with 21 core Coaxial with 35 core [Stated different types of cable]	
6*	(a) (b) (c)	No Entry In duct Fixed above ground	
7 *	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l)	No entry PVC/SWA/PVA cable PVC/ASA/PVC cable Double insulated cable Split concentric cable Coaxial cable Communications cable Telephone cable Fibre optic cable Composite copper/fibre optic cable Interrupter cable Loop detector feeder cable [Stated different types of cable]	
8*	(a) (b)	No entry Armoured	

9* (a) (b) Straight joint in loop detector chamber, box or pit (c) Breeches joint in loop detector chamber, box or pit (d) [Stated different type of joint] (e) 10* (a) Electricity suppliers interface (b) Eircom interface (c) Telephone (d) Responder (e) Signal (f) Loop detectors (g) Basic Network cable (h) Fibre optic cable (i) Variable message sign responder Lighting control (k) Meteorological equipment Telephone bridge unit (m)CCTV (n) Video amplifier (o) Carrier (p) Meteorological equipment (q) Telephone responder Signal transponder (s) ATS transponder (t) VMS transponder (u) [Stated different type] 11* No Entry (a) Gantry distribution box Type [direct entry] (b) Feeder pillar Type [direct entry] (c) Cabinet Type [direct entry] (d) Telephone Type [direct entry] (e) Signal post distributor box Type [direct entry] Gantry distribution unit Type [direct entry] (g) Camera pole (h) Box Type [direct entry] Sign lighting control and distribution cabinet Connection box [Stated different type] 12* No Entry (a) One way signal Type [direct entry] (b) Two way signal Type [direct entry] (c) Signal Type [direct entry] for [direct entry] lane(s) (d) Signal Type [direct entry] (e) Variable message sign (VMS) (f) Meteorological equipment [direct entry] (g) Telephone Type [direct entry] in housing Type [direct entry] (h) Motorwarn equipment Type [direct entry] (i) CCTV camera with pan and tilt head [direct entry] CCTV camera with fixed bracket [direct entry] (k) Connector box [direct entry] (I) Box Type [direct entry]
Additional box Type [direct entry] (m)(n) (o) Power distribution unit (PDU) Power distribution unit and heater [direct entry] (p) Detector unit for [direct entry of number] road loop(s) (q) Video launch amplifier [direct entry] Video intermediate amplifier [direct entry] (s) 2 video intermediate amplifiers [direct entry] video terminal amplifier [direct entry] (u) Video coaxial amplifier [direct entry] Type [direct entry] cabinet (w) (x) Capacitors and tag strip [direct entry] Multiway terminal connectors [direct entry] (y)

[Stated different Equipment Types]

13* (a) No Entry Eircom interface (b) Electricity suppliers interface (c) (d) Local power cabinet equipment Loading Frame Type [direct entry] (e) Lighting control (f) Responder Type [direct entry] (g) Telephone bridge unit (h) Signal transponder (i) ATS transponder (j) VMS transponder (k) MET transponder (I) Telephone responder (m) CCTV camera control equipment (n) (o) New empty 19" rack Existing 19" rack
Transmission rack 2400 series (p) (q) Fibre optic transmission (r) [Stated Equipment Type] (s) 14* No Entry (a) [Stated Size] (b) 15* No Entry (a) [Stated different locations] (b) 16* No Entry (a) Type 1 single lane (b) Type 2 double lane (c) Type 3 three lane (d) Type 4 four lane (e) Type 5 five lane (f) Type 6 six lane (g) [Stated different types] 17* (a) No Entry Communications cable (b) Power cable (c) 18* (a) No Entry [Stated different sections] (b)

Series 1600 Piling and Embedded Retaining Walls

Item	Root Narrative	Unit
	Piling Plant	
1 2	Establishment of piling plant 1* 2* 3*4* 5* Moving piling plant 1* 2* 3* 4* 5*	Item no.
	Precast Concrete Piles	
3 4 5 6	Driving precast concrete piles 6* 2* 7* 3* 8* 4* Lengthening precast concrete piles 6* 2* 7* 3* 8* 4* Driving lengthened precast concrete piles 6* 2* 7* 3* 8* 4* Stripping pile heads 6* 2* 7* 3* 8* 4*	m m m no.
	Cast-in-place Piles	
8 9 10	Cast in place piles to pile shafts 6* 2* 7* 3* 9* 4* Cast in place piles to empty bores 6* 2* 7* 3* 9* 4* Enlarged bases for cast in place piles 6* 2* 7* 3* 9* 4*	m m no.
	Reinforcement for Cast-in-place Piles	
11 12	Bar reinforcement 10* 11* 12* Helical reinforcement 10* 11* 12*	t t
	Steel Bearing Piles	
13 14 15 16 17 18	Steel bearing piles 6* 2* 8* 4* Driving steel bearing piles 6* 2* 8* 4* Lengthening pieces for steel bearing piles 6* 2* 8* 4* Driving lengthened steel bearing piles 6* 2* 8* 4* Steel bearing piles, welding on lengthening Pieces 6* 2* 8* 4* Steel bearing piles, cutting or burning off surplus 6* 2* 8* 4*	m m m m no. no.
	Proof Loading of Piles	
19	Establishment of proof loading equipment 1* 14* 13* 6*	Item
20	Proof loading of piles 1* 14* 13* 6*	no.
	Steel Sheet Piles	
21 22 23 24 25 26 27 28 29 30 31 32	Steel sheet piles 2* 8* 15* Extra over on steel sheet piles 2* 16* 8* 15* Driving steel sheet piles 2* 8* 15* Extra over on driving steel sheet piles 2* 16* 8* 15* Lengthening pieces to steel sheet piles 2* 8* 15* Extra over on lengthening pieces to steel sheet 2* 16* 8* 15* Driving lengthening pieces to steel sheet piles 2* 8* 15* Extra over on driving lengthening pieces to steel sheet piles 2* 8* 15* Extra over on driving lengthening pieces to steel sheet piles 2* 16* 8* 15* Welding on lengthening pieces to steel sheet piles 2* 8* 15* Cutting or burning off surplus length of steel sheet piles 2* 8* 15* Wailings to steel sheet piles 2* 8* 13* Tie rods to steel sheet piles 2* 8* 13*	m² m m² m m² m m m t
	Embedded Retaining Wall Plant	
33	Establishment of embedded retaining wall plant 17* 5*	Item

Diaphragm Walls 34 Diaphragm walls 18* 19* m² Empty excavation 18* 19* 35 m² **Secant Pile Walls** 36 Hard/hard secant pile walls 20* 21* m² 37 Hard/soft secant pile walls 20* 21* m² Empty bores 20* 21* 38 m^2 **Contiguous Bored Pile Walls** Contiguous bored pile walls 22* 23* 39 m² Empty bores 22* 23* 40 m² **Reinforcement for Embedded Retaining Walls** 41 Bar reinforcement 10* 11* 24* t Helical reinforcement 9* 10* 24* 42 Rolled sections 10* 24* 43 **King Post Wall Plant** 44 Establishment of piling plant for king posts 25* 2* 26* 5* Item 45 Moving piling plant for king posts 25* 2* 26* 5* no. **King Posts** 46 King post pile shafts 6* 2* 7* 3* 27* m 47 Kind post empty bores 6* 2* 7* 3* 27* m **Reinforcement for King Post Piles** Bar reinforcement 10* 28* 29* 48 t 49 Helical reinforcement 10* 28* 29* t 50 Rolled section members 28* 29* t 51 Precast concrete members 28* 29* m **King Post Walling** King post walling 2* 18* 52 m²

Group	No.	Variables
1*	(a) (b) (c) (d) (e) (f) (g)	No Entry Precast concrete piles Bored cast-in-place piles Driven cast-in-place piles Steel bearing piles Steel sheet piles [Stated different types of piles]
2*	(a)	No Entry
	(b)	[Stated different types]
3*	(a) (b) (c) (d) (e) (f) (g) (h) (i)	No Entry 300 x 300 mm 350 x 350 mm 400 x 400 mm 450 x 450 mm 500 x 500 mm 550 x 550 mm 600 x 600 mm [Stated different cross sections]
4*	(a) (b) (c)	No Entry Preliminary piling as a separate operation in advance of the main piling Main piling
5*	(a) (b)	No Entry [Stated different locations]
6*	(a) (b) (c)	No Entry Vertical Raking
7*	(a) (b)	No Entry [Stated different materials]
8*	(a) (b) (c)	No Entry Piles not exceeding 5m in length Piles exceeding [5]m in length but not exceeding [10]m in length (steps of 5m)
9*	(a) (b)	No Entry Pile shafts not exceeding 5m in length Dile shafts exceeding [5]m in length but not exceeding [10]m in length (stone of 5m)
10*	(c) (a) (b) (c)	Pile shafts exceeding [5]m in length but not exceeding [10]m in length (steps of 5m) No Entry Nominal size 16 millimetres and under Nominal size 20 millimetres and over
11*	(a) (b)	No Entry [Stated different types and grades of steel]
12*	(a) (b) (c)	No Entry Bars not exceeding 12 metres in length Bars exceeding [12]m in length but not exceeding [13.5]m (steps of 1.5m)
13*	(a) (b) (c) (d)	No Entry Maintained load Constant rate load Dynamic load

14*	(a) (b) (c)	No Entry Preliminary piles Main piles
15*	(a) (b) (c)	No Entry In main construction In anchorages
16*	(a) (b) (c) (d) (e)	No Entry for corner pile for junction pile for special steel sheet piles [direct entry] [Stated different types of special pile]
17*	(a) (b) (c) (d) (e)	No Entry Diaphragm walls Hard/hard secant pile walls Hard/soft secant pile walls Contiguous bored pile walls
18*	(a) (b)	No Entry [Stated different thicknesses of walls]
19*	(a) (b)	No Entry Diaphragm walls not exceeding 5m in depth
	(c)	Diaphragm walls exceeding [5]m in depth but not exceeding [10]m in depth (steps of 5m)
20*	(a) (b) (c)	No Entry [Stated different diameters of piles] [Stated different spacing's and overlap of piles at commencing level]
21*	(a) (b)	No Entry Secant pile walls not exceeding 5m in depth
	(c)	Secant pile walls exceeding [5]m in depth but not exceeding [10]m in depth (steps of 5m)
22*	(a) (b) (c)	No Entry [Stated different diameters of piles] [Stated different spacings of piles]
23*	(a) (b) (c)	No Entry Contiguous bored pile walls not exceeding 5m in depth Contiguous bored pile walls exceeding [5]m in depth but not exceeding [10]m in depth (steps of 5m)
24*	(a) (b) (c)	No Entry Bars or sections not exceeding 12 metres in length Bars or sections exceeding [12]m in length but not exceeding [13.5]m (steps of 1.5m)
25*	(a) (b) (c)	No Entry Bored cast-in place piles Driven cast-in-place piles
26*	(a) (b)	No Entry [Stated different diameters of piles]

(c)

27* No Entry (a) King post pile shafts not exceeding 5m in length (b) King post pile shafts exceeding [5]m in depth but not exceeding [10]m in depth (steps of (c) 28* No Entry (a) (b) [Stated different types and grades of steel and concrete] 29* (a) Bars or members not exceeding 12 metres in length (b)

Bars or members exceeding [12]m in length but not exceeding [13.5]m (steps of 1.5m)

Series 1700 Structural Concrete

Item	Root Narrative	Unit			
	In Situ Concrete				
1	In situ concrete 1* 2*	m³			
	Precast Concrete				
2 3 4	Precast concrete 3* 4* 5* 6* Precast concrete 7* 4* 5* 6* Precast concrete facing unit 8* 4* 5* 6*	no. m m²			
	Surface Finish of Concrete – Formwork				
5 6	Formwork 9* 10* 11* Void former of 12* 13*	m² m			
	Surface Finish of Concrete – Patterned Profile Formwork				
7	Patterned and profile formwork 14* 15*	m²			
	Steel Reinforcement for Structures				
8 9 10 11	Bar reinforcement 16* 17* 18* 19* 20* Fabric reinforcement to BS 21* Helical reinforcement 16* 17* 20* Dowels 22* 23*	t m² t no.			
	Reinforcement for Reinforced and Anchored Earth Structures				
12 13 14 15	Vertical rods of 24* 25* 26* Strip reinforcing element of 27* 28* 25* 26* Bar reinforcing element of 27* 28* 25* 26* 29* reinforcing element 30* 23*	m m m m²			
	In Situ Post-tensioned Prestressing for Structures				
16	Tendons 31* 32* 4* 33* 34*	no.			

Group	No.	Variables
1*	(a) (b) (c)	No Entry [Stated different design mixes] [Stated different classes or grades]
2*	(a) (b)	No Entry Blinding concrete 75mm or less in thickness
3*	(a) (b) (c) (d) (e) (f) (g)	No Entry member slab segmental unit hinge specially moulded block [Stated type of precast unit]
4*	(a) (b)	No Entry [Stated different type]
5*	(a) (b)	No Entry [Stated different sizes]
6*	(a) (b)	No Entry Curved
7*	(a) (b) (c) (d) (e) (f)	No Entry coping capping unit plinth culvert [Stated type of precast unit]
8*	(a) (b)	No entry [Stated type of precast facing unit]
9*	(a) (b) (c) (d) (e) (f) g (g)	No Entry Horizontal more than 300mm wide Inclined more than 300mm wide Vertical more than 300mm wide 300mm wide or less at any inclination Curved on both girth and width more than 300mm at any inclinatior Curved on both girth and width more than 300mm or less at any inclinatior Domed
10*	(a) (b) (c) (d) (e) (f) (g)	No entry F1 F2 F3 F4 F5 [Stated other classes of surface finish]
11*	(a) (b)	No entry Permanent formwork [insert type]
12*	(a) (b)	No Entry [direct entry for cross section of void former]

13*	(a) (b)	No entry [insert different types of void former]
14*	(a) (b) (c) (d) (e)	No Entry Horizontal Inclines Vertical Curved at any inclination
15*	(a) (b)	No entry [insert different types of patterned profile formwork finish]
16*	(a) (b) (c)	No Entry Nominal size of 16 mm and under Nominal size of 20 mm and over
17*	(a) (b)	No Entry [Stated type and grade of steel]
18*	(a) (b) (c)	No Entry not exceeding 12 metres in length exceeding [12]m in length but not exceeding [13.5]m (and so on in steps of 1.5m)
19*	(a) (b)	No Entry Threaded through holes in members
20*	(a) (b)	No Entry [Stated type of deformed bars]
21*	(a) (b)	No entry [insert BS reference]
22*	(a) (b)	No entry [Stated diameter and lengths]
23*	(a) (b)	No entry [Stated material]
24*	(a) (b) (c)	No entry of nominal size 16 mm and under of nominal size 20 mm and under
25*	(a) (b)	No Entry [Stated material]
26*	(a) (b)	No Entry [Stated different lengths]
27*	(a) (b)	No entry [Stated cross section]
28*	(a) (b)	No entry [Stated load carrying capacity]
29*	(a) (b) (c) (d) (e)	No entry Sheet Grid Mesh [Stated type of different reinforcing element]

30*	(a) (b)	No entry [Stated type or reference]
31*	(a) (b) (c) (d) (e)	No Entry Stressing and grouting internal tendons Stressing external tendons Final stressing and grouting tendons of members supplied partially prestressed Grouting trials
32*	(a) (b) (c)	No Entry For in situ concrete construction For segmental construction
33*	(a) (b)	No Entry [Stated length of Tendon]
34*	(a) (b)	No Entry [Stated type or size of protective covering to external tendons]

Series 1800 Structural Steelwork

Item	Root Narrative	Unit
	Fabrication and Erection of Steelwork	
1 2 3	Fabrication of 1* 2* 3* 4* 5* Trial erection at the place of fabrication 6* Permanent erection 6*	t Item t
	Miscellaneous Metalwork	
4	Miscellaneous metalwork 7* 8* 9*	no.
	Corrugated Steel Buried Structures	
5	Corrugated steel buried structures 10* 11* 9* 12*	no.
	Metal Facing Units for Reinforced Earth Structures	
6 7	Metal facing units 8* 13* 12* 14* 15* Metal capping units and the like 8* 13* 12* 14* 15*	m² m

Group	No.	Variables
1*	(a) (b) (c) (d)	No Entry Main members Deck panels Subsidiary steelwork
2*	(a) (b) (c) (d) (e)	No Entry Rolled Sections Plated rolled sections Plated Girders Box girders
3*	(a) (b)	No Entry [Stated different combinations of grades of steel]
4*	(a) (b)	No Entry Curved on plan or elevation
5*	(a) (b)	No Entry and tapering
6*	(a) (b) (c)	No Entry [Stated different forms of steel substructure construction] [Stated different forms of steel superstructure construction]
7*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	No Entry Ladder Bracket Handrail Access cover and frame Mesh panel Walkway panel Screen Grille Cattle grid [Stated different types]
8*	(a) (b) (c) (d) (e)	No Entry Galvanised Steel Stainless Steel Aluminium [Stated different materials]
9*	(a) (b)	No Entry [Stated different sizes]
10*	(a) (b)	No Entry [Stated unique length]

Pipe 11* (a) Arch (b) Pipe Culvert (c) (d) Arch culvert [Stated different type] (e) 12* No Entry (a) [Stated different thicknesses or gauge] (b) 13* (a) No Entry (b) [Stated different type of Metal Facing/Capping Units and the like] 14* (a) Curved on plan (b) No Entry 15* (a) Built to a batter (b)

Series 1900 Protection of Steelwork against Corrosion

	Item	Root Narrative	Unit
		Protective System	
	1	Protective system 1*	m²
		Maintenance & Painting of Steelwork	
	2 3 4 5 6 7	Surface preparation to general surfaces 5* 2* 3* 1* 4* Protective system to general surfaces 5* 2* 3* 1* 4* Surface preparation to 6* 2* 3* 1* Protective system to 6* 2* 3* 1* Surface preparation to 7* 2* 3* 1* Protective system to 7* 2* 3* 1*	m² m² m m no.
Group	No.	Variables	
1*	(a) (b)	No Entry [Stated different type]	
2*	(a) (b)	No Entry [Stated different sizes]	
3*	(a) (b)	No Entry [Stated different methods]	
4*	(a) (b)	No Entry [Stated different locations]	
5*	(a) (f)	No Entry [Stated different general surface to be treated]	
6*	(a) (b) (c) (f)	No Entry Parapet Pedestrian guardrail [Stated different surface to be treated]	
7*	(a) (b) (c) (d) (e) (f) (g) (h)	No Entry Bearings CCTV Masts Steel lighting columns Bracket arms Equipment boxes Cabinets [Stated different surface to be treated]	

Series 2000 Waterproofing for Structures

	Item Root Narrative		Unit	
		Waterproofing		
	1	Waterproofing 1* 2*	m²	
		Surface Impregnation and Coatings of Concrete		
	2	Surface impregnation 3* 4* Surface impregnation and coatings of concrete 3* 4*	m² m²	
		Removal of Existing Waterproofing		
	4	Removal of existing waterproofing 2*	m²	
Group	No.	Variables		
1*	(a) (b) (c) (d) (e)	No Entry Mastic asphalt or proprietary waterproofing system Two coats of tar Two coats of bitumen [Stated different types of materials]		
2*	(a) (b) (c) (d) (e)	No Entry More than 300mm wide horizontal or at any inclination up to and including 30° to the horizontal More than 300mm wide at any inclination more than 30° up to and including 90° to the horizontal 300mm wide of less at any inclination Domed		
3*	(a) (b) (c)	No Entry Patterned surfaces Plain surfaces		
4*	(a) (b)	No Entry [Stated different types of systems]		

Series 2100 Bridge Bearings

	Item	Root Narrative	Unit
		Bearings	
	1 2	Bearings 1* Installation of bearings 1*	no. no.
Group	No.	Variables	
1*	(a)	No Entry	
•	(b)	[Stated different types]	

Series 2300 Bridge Expansion Joints and Sealing of Gaps

	Item	Root Narrative	Unit
		Bridge Deck Expansion Joints	
	1	Bridge deck expansion joints 1* 2* 3*	no.
		Sealing of Gaps	
	2 3 4 5	Joint filler 1* 4* 5* Joint sealant 1* 4* 5* Water bar 1* 4* 5* Water stop 1* 4* 5*	m² m m m
Group	No.	Variables	
1*	(a) (b)	No Entry [Stated different types of materials]	
2*	(a) (b)	No Entry [Stated different lengths]	
3*	(a) (b)	No Entry [Stated different gap widths]	
4*	(a) (b)	No Entry [Stated different sizes]	
5*	(a) (b)	No Entry [Stated different thicknesses]	

Series 2400 Brickwork, Blockwork and Stonework

	Item	Root Narrative	Unit
		Brickwork	
	1	Brickwork 2* 3* 4* 5* 6* 7* 8*	m²
	2	Extra over for brickwork facing 2* 3* 4* 5* 6* 7* 8*	m²
	3	Stonework 18* 3* 4* 5* 6* 7* 8*	m²
	4	Copings, string courses and the like 10* 11* 12* 13* 1* 3* 4* 5* 6* 7* 8*	m
		Blockwork and Stonework	
	3	Blockwork 14* 15* 16* 5* 6* 7* 8* 9*	m³
	4	Stonework 14* 15* 18* 5* 6* 7* 8* 9*	m³
	5	Copings, string courses and the like 19* 20* 5* 6*	m
	6	Individual blocks, features or stones 17* 15* 16* 5*	no.
	7	Wall pier as per TII's SCDs 26* 28* of 4*	no.
		Remove from Store and Relay Brickwork, Blockwork and Stonework	
	7	Remove from store and relay brickwork 2* 21* 4* 5* 6* 7* 8*	m²
	8	Extra over for remove from store and relay brickwork 2* 21* 4* 5* 6* 7* 8*	m²
	9	Remove from store and relay blockwork 15* 16* 3* 4* 5* 6* 7* 8* 9*	m³
	10	Remove from store and relay stonework 18* 3* 4* 5* 6* 7* 8* 9*	m³
	11	Remove from store and relay copings, string courses and the like 19* 20* 5* 6*	m
	12	Remove from store and relay individual blocks, features or stones 17* 15* 16* 5*	no.
		Masonry Repointing	
	13	Repointing blockwork 28* 23* 22* 24* 25* 26* 27* 8*	m²
	14	Repointing stonework 18* 23* 22* 24* 25* 26* 27* 8*	m²
	15	Repointing brickwork 2* 23* 22* 24* 25* 26* 27* 8*	m²
Group	No.	Variables	
1*	(a)	No Entry	
Ī	(b)	Coping [insert different sizes]	
	(c)	String courses [insert different sizes]	
	(d)	[Stated named feature of different sizes]	
	(-)	·	

2* (a) No Entry (b) Clay bricks (c) Calcium silicate bricks (d) Aggregate concrete bricks High density clay bricks (e) [Stated different brick type] (f) 3* (a) No entry [Stated different thickness] (b) 4* No Entry (a) (b) in stretcher bond in Flemish bond (c) in English bond (d) [Stated different bond] (e) 5* No Entry (a) (b) in cement mortar designation (i) (c) in cement mortar designation (ii) in cement mortar designation (iii) (d) in lime mortar (e) (f) [Stated different type of mortar] 6* No Entry (a) Curved on plan (b) No Entry (a) (b) With a battered face 8* (a) No Entry (b) In walls (c) In facework to concrete (d) In arches In alteration work (e) 9* (a) No Entry [Stated different plastering and finishes] (b) 10* (a) No entry (b) in bullnose 11* (a) No entry (b) in headers 12* (a) No entry (b) on edge 13* (a) No entry (b) with two courses of tile creasing 14* (a) (b) Coping [insert different sizes] String courses [insert different sizes] (c) Individual blocks [insert different sizes] (d) (d) [Stated named feature or stone of different sizes] 15* (a) No Entry

(b) [Stated different types of construction] 16* (a) No Entry (b) [Stated different materials] 17* (a) No Entry Individual blocks [insert different sizes and shapes] (b) Individual features [insert different sizes and shapes] (c) (d) Individual stones [insert different sizes and shapes] (e) [Stated block, feature or stone of different sizes and shapes] 18* (a) No entry reconstituted stone (b) natural stone rubble (c) (d) natural stone ashlar (e) random rubble uncoursed (f) random rubble coursed (g) squared random rubble uncoursed (h) squared random rubble coursed dry rubble (i) (j) [Stated different stone type] 19* (a) No entry (b) Coping [Insert sizes) String courses [Insert sizes) (c) (d) [Stated different coursing/string types and sizes] 20* (a) No entry (b) blockwork (c) stonework 21* (a) [Stated brick unit size] (in the format Bed Depth X Height X Length) (b) 22* (a) No entry (b) Without pozzolanic additives (c) With pozzolanic additives 23* (a) No Entry [Stated different mortar types] (b) 24* (a) No Entry [Stated mortar colour] (b) 25* (a) No Entry [Stated joint thickness] (b) 26* (a) No Entry [Stated joint finish] (b) 27* (a) No Entry [Stated joint preparation] (b) 28* (a) No Entry

(b) [Stated different types of blockwork] Walls - Typical Blockwork Wall (CC-SCD-02401) 29* (a) Walls - Typical Dense Concrete Masonry Blockwork Wall (CC-SCD-02402) (b) Walls - Typical Masonry Faced Blockwork Wall (CC-SCD-02403) (c) Walls - Typical Stonework Wall (CC-SCD-02404) (d) 30* (a) No entry Walls - Typical Railing on Low Stonework Wall (CC-SCD-02405) (b) Walls - Typical Steel Palisade on Low Wall (CC-SCD-02406) (c) 31* (a) [Stated unique approved design reference] (b) No Entry 32* (a) [Stated unique dimensions] (b)

Series 2500 Special Structures

	Item	Root Narrative	Unit
		Special Structures	
	1	Special structure designed by the Contractor 1* 2* 3*	Item
Group	No.	Variables	
1*	(a) (b)	No Entry [Stated name or reference]	
2*	(a) (b) (c) (d) (e)	No Entry Buried Structure Earth retaining structure Underbridge up to 8m span Footbridge	
	(f)	[Stated other structure]	
3*	(a) (a)	No Entry [Stated location reference]	

Series 2700 Watermains, Utilities and Accommodation Works

Item	Root Narrative		
	Watermains		
1	Watermains 1* 2* 3* 4* 5*	m	
2	Adjustment rate on the last item for each 25mm of difference in excess of 150mm [Stated average depth to invert to the nearest 25mm]	Item	
	Connections		
3 4	Connection to existing watermain 1* 2* 6* 7* Connection to existing chamber Bends 1* 2* 6* 7*	no. no.	
	Pipe Fittings		
5	Fitting 8* 9* 10* 11* 12*	no.	
	Valves and Penstocks		
6	Valves and Penstocks 13* 14* 9* 15*	no.	
	Chambers		
7	Chambers 16* 17* 18*	no.	
	Thrust Blocks		
8	Thrust Block 19*	no.	

Group	No.	Variables
1*	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	No Entry 80 mm internal diameter 100 mm internal diameter 150 mm internal diameter 200 mm internal diameter 250 mm internal diameter 300 mm internal diameter 350 mm internal diameter 400 mm internal diameter 450 mm internal diameter 500 mm internal diameter
	(l) (m) (n)	1050 mm internal diameter 1200 mm internal diameter [Stated different internal diameters]
2*	(a) (b) (c)	No Entry Watermain - Watermain Trench and Bedding Details for Untrafficked Areas - (CC-SCD-02701) Watermain - Watermain Trench and Bedding Details for Existing Roads - (CC-SCD-02702)
	(d) (e)	Watermain - Watermain Trench and Bedding Details for New Roads - (CC-SCD-02703) [Stated different types of watermain]
3*	(a) (b) (c)	No Entry Depths to invert not exceeding 2 metres [Stated average depth to invert to the nearest 25mm] Depths to invert exceeding [2] metres but not exceeding [4] metres (steps of 2m) [Stated average depth to invert to the nearest 25mm]
4*	(a) (b) (c) (d) (e)	No Entry Construction in trench Construction in heading Construction by jacking or thrust boring Suspended on discrete supports
5*	(a) (b)	No Entry In side slopes of cuttings or side slopes of embankments
6*	(a) (b) (c)	No Entry Depths to invert not exceeding 2 metres Depths to invert exceeding [2] metres but not exceeding [4] metres (steps of 2m). At the place of fabrication or manufacture.
7*	(a) (b) (c)	No Entry Connection to existing watermain Connection to existing chamber

8* No Entry (a) (b) Bends Junctions and branches (c) (d) **Tapers** Double collars (e) Adaptors (f) Glands (g) Bellmouths (h) Straight Specials (h) [Stated different types of fittings] (i) 9* (a) No Entry Nominal bore: not exceeding 200mm (b) Nominal bore: 200 - 300mm (c) Nominal bore: 300 - 600mm (d) Nominal bore: 600 - 900mm (e) Nominal bore: 900 - 1200mm (f) Nominal bore: 1200 - 1500mm (g) Nominal bore: 1500 - 1800mm (h) Nominal bore: exceeding 1800m (i) 10* No Entry (a) Provided by the Employer (b) 11* No Entry (a) [Stated place of fabrication or manufacture] (b) 12* (a) No Entry (b) Until completion of the Works (c) After completion of the Works 13* (a) No Entry [Stated pipe material] (b) 14* No Entry (a) (b) Bend Gate Valve - hand operated (c) Gate Valve - power operated (d) Non-return valve (e) (f) Butterfly valve - hand operated Butterfly valve - power operated (g) (h) Air valve Pressure reducing valve (i) [Stated other type] (j) 15* No Entry (a) Fitting without puddle flanges (b) (c) Fitting with puddle flanges

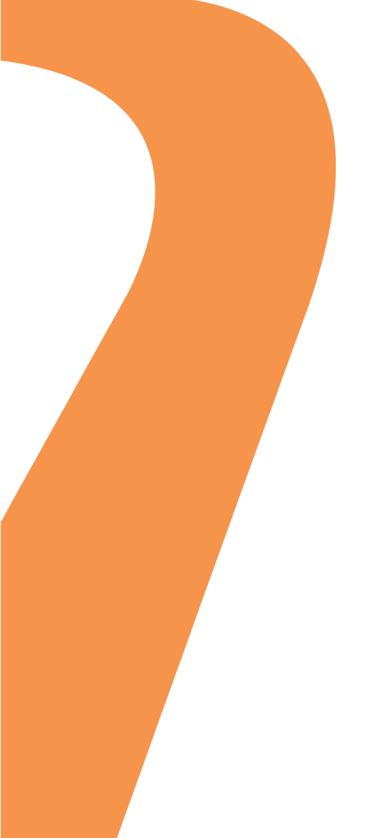
16* No Entry (a) Sluice Valve Chamber (Mains 300mm Diameter or Less) - (CC-SCD-02704) TYPE A (a) (b) Sluice Valve Chamber (Mains 300mm Diameter or Less) - (CC-SCD-02704) TYPE A1 (c) Twin Sluice Valve Chamber (Mains 300mm Diameter or More) - (CC-SCD-02705) Butterfly Valve Chamber (Mains 350mm Diameter or Over) - (CC-SCD-02706) (d) Air Valve or Hydrant Chamber (Mains 400mm Diameter or Less) - (CC-SCD-02707 & CC-(e) SCD-02708) Offset Hydrant Chamber - (CC-SCD-02709 & CC-SCD-02710) (f) [Stated specified design group] (g) [Stated particular designs stated in the Contract] (h) 17* (a) No Entry Depths to invert not exceeding 1m (b) (c) Depths to invert exceeding [1]m but not exceeding [2]m (steps of 1m) 18* (a) [Stated type of cover or grating] (b) 19* (a) No Entry Volume not exceeding 0.1m³ (b) Volume: $0.1m^3 - 0.2m^3$ (c) Volume: 0.2m3 - 0.5m3 (d) Volume: 0.5m3 - 1m3 (e) Volume: 1m3 - 2m3 (f) Volume: 2m³ - 4m³ (g) Volume: 4m3 - 6m3 (h) Volume exceeding 6m3 [Insert stated volume) (i)

Series 2800 Trenchless Installation of Road Drainage and Service Ducts

	Item	Root Narrative	Unit
		Establishment and Removal of Plant	
	1	Establishment and removal of Plant 1*	Item
		Drain and service ducts	
	2	Pipe run 1* 2* 3* 4* 5*	m
		Lateral connections to pipes to be replaced by on-line replacement	
	3	Lateral connection 6* 7* 8* 9* 10*	no.
Group	No.	Variables	
1*	(a) (b)	No Entry [Stated pipe run reference]	
2*	(a) (b) (c) (d)	No Entry Drain [Stated type or reference] Service ducts [Stated type or reference] Lining [Stated type or reference]	
3*	(a) (b) (c) (d) (e)	No Entry New Installation On-line Replacement Minimum Dig Rehabilitation	
4*	(a) (b)	No Entry [Stated internal diameter(s)]	
5*	(a) (b)	No Entry [Stated existing internal diameter(s)] (Rehabilitation only)	
6*	(a) (b)	No Entry [Stated connection reference]	
7*	(a) (b) (c)	No Entry Drain Service ducts	
8*	(a) (b)	No Entry [Stated internal diameter(s) of the lateral connecting feature]	
9*	(a) (b)	No Entry [Stated internal diameter(s) of main feature run]	
10*	(a) (b) (c)	No Entry Depths to invert not exceeding 2m Depths to invert exceeding [2]m but not exceeding [3]m (steps of 1m)	

Series 2900 CCTV Survey of Road Drainage Systems

	Item	Root Narrative	Unit
		CCTV Survey of Road Drainage Systems	
	1	Site establishment	Item
	2	Setting up at survey points 3*	no.
	3	Provision of report	Item
	4	Surveying of drains 1* 2*	m
	5	Surveying of gully connections 1* 2*	m
	6	Extra over for use of a rodding camera for surveying of drains 1* 2*	m
	7	Extra over for use of a rodding camera for surveying of gully connections 1* 2*	m
	8	Extra over for use of a pan and tilt camera for surveying of drains 1* 2*	m
	9	Extra over for use of a pan and tilt camera for surveying of gully connections 1* 2*	m
	10	Forced ventilation	day
Group	No.	Variables	
1*	(a)	No Entry	
	(b)	Depth to invert not exceeding 6 metres	
	(c)	Depth to invert exceeding 6 metres	
2*	(a)	No Entry	
	(b)	Diameters not exceeding 125mm	
	(c)	Diameters exceeding 125mm but not exceeding 475mm	
	(d)	Diameters exceeding 475mm but not exceeding 900mm	
	(e)	Diameters exceeding 900mm but not exceeding 1200mm	
	(f)	Diameters exceeding 1200mm but not exceeding 1800mm	
3*	(a)	No Entry	
	(b)	Setting up on pavement	
	(c)	Setting up on verge not exceeding 3m from carriageway edge	
	(d)	Setting up on verge exceeding 3m from carriageway edge	
	(e)	Setting up off highway (beyond highway boundary)	







Ionad Ghnó Gheata na Páirce, Stráid Gheata na Páirce, Baile Átha Cliath 8, D08 DK10, Éire



www.tii.ie



+353 (01) 646 3600



Parkgate Business Centre, Parkgate Street, Dublin 8, D08 DK10, Ireland



info@tii.ie



+353 (01) 646 3601