ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4) L113 – GROUTED ANCHORS

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1 Introduction

1.1 Asset Details

Class Code: L113

Class Name: Grouted anchors

Class Lineage: Construction Products>Ground Treatment and Retention Products>Ground Anchorages>Grouted anchors

1.2 Description

Ground Anchors are structural elements where a grout body is produced in the subsoil by injecting grouting mortar around the rear part of the steel tendon. The grout body is connected by way of the steel tendon and the anchor head to the structure, or the rock section to be anchored.

Any load to be taken up by the grouted anchor is passed into the subsoil, not over the entire length of the anchor, but only in the area of grout body.

The steel tendon section, where the anchor is free to expand, is the free tendon length. It acts like a spring which can be pre-tensioned to the structure against the subsoil.

Grouted anchors are subjected to tension only. Their Residual load capacity is checked by tensioning.

The whole grouted anchor system will be treated as a single asset, a large wall may have many individual anchors, each anchor will be treated as an individual asset.

1.3 Related Functions

All information on the configuration of asset classes (L-Class) to functions is contained within the latest revision of the Asset Data Dictionary Master Configuration document (eB ref: CRL1-XRL-Z3-ADDSD-CR001-50186)

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2 Asset Tag Identification Rules

Assets will be identified as required by the Asset Identification Standard (CRL1-XRL-O6-STD-CR001-00031) in the following format:

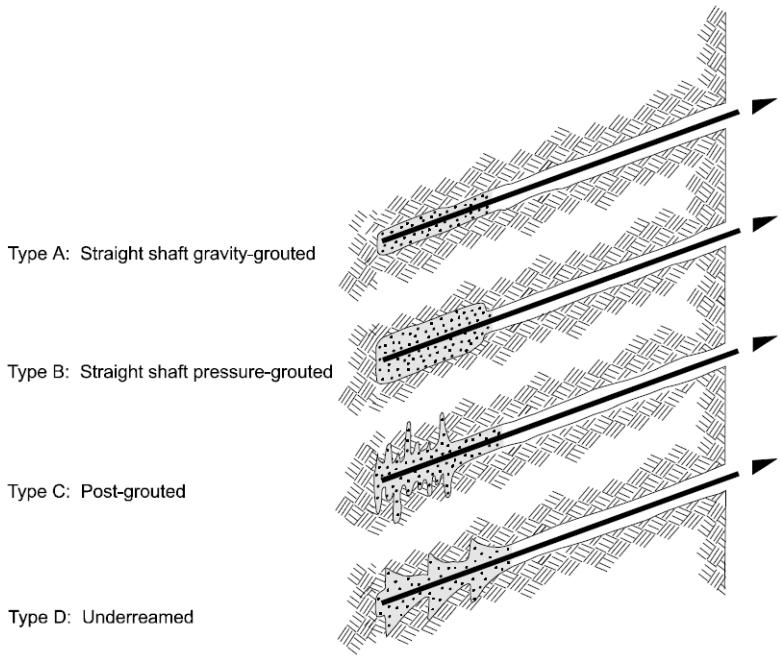
<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

e.g. CR076-BAF-12345

Information and guidance on the standard naming convention for all asset classes is contained within the latest revision of the Asset Naming Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

2.1 Example Images

Types of grouted anchors:



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3 Attributes

3.1 Generic Attributes

All Classes of assets will have a set of Generic Attributes for which data is collected without exception. Full details relating to these assets can be found at:

AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069

3.2 Class Specific Attributes

Below is a table of the further specific attributes which are associated with this asset class.

Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Depth (Metres)	Metres	NU	2		Vertical Depth of the buried anchor end
Diameter (Millimetres)	Millimetres	NU	0		Diameter of the rod or wire
Height (Metres)	Metres	NU	2		Vertical Height of the visible anchor
Length (Metres)	Metres	NU	2		Length of the connecting rod or wire
Maximum Slope Angle (Degrees)	Degrees	NU	0		Angle of slope of the rod or wire
Safe Working Load (Kilograms)	Kilograms	NU	2		The manufacturer's recommended loading
Shape		PD		Circular Conical Rectangular Spherical Square	Desertion of the shape of the plate
Structurally Critical		PD		Yes No	The component is integral to the overall asset's structural integrity

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pd = Predefined List (Listed Values Only)
nu = Numeric (dp and number format can be stipulated)
ch = Free text (Max 255 Characters)
da = Date (dd-mm-yyyy)
me = Memo (Free text 1GB Limit)

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4 Performance Data

This section is to be used to specify the performance data to be gathered from this Class of asset when in operation. To be populated once the performance measures have been agreed with the Infrastructure Managers.

5 Labelling

Information and guidance on the standard labelling convention for all asset classes is contained within the latest revision of the Asset Naming and Labelling Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

6 Other Information

Not Applicable

7 Reference Material

- Asset Data Dictionary Master Configuration - CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes - CRL1-XRL-Z3-ADDSD-CR001-50069
- Asset Naming Convention Document - CRL1-XR1-Z3-ADDSD-CR001-50413

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Head of Civil Structures	19-Sep-2014

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