The Government of the Hong Kong Special Administrative Region

Working Paper No. 3

Final Standard of Works Project Information Standard

for the

Development Bureau

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1 Introduction

The Working Paper No. 3 introduces the WPIS Final Standard which is a continuation of the data collection, categorization, and formulation efforts from the draft standard of the WPIS.

In the Standard formulation exercise, majority of the data domains are based on existing government forms and documents in paper format, thus XML data schema has been recommended as the basis for the formulation of the data standard for these data domains. Some data domains cover a diverse set of information sources such as excel file format, CSV, XML etc., which were widely accepted information exchange formats from the industry and local or international standard formats. Thus, it was identified and categorized that some data domains should be modeled based on XML data schema, and some data domains should reference existing standards or systems.

This document presents the Final Standard of the WPIS data domains and protocols based on the comments and feedback from WPIS Project Working group, Consulting Working Group and the public consultation exercise on the WPIS Draft Standard.

2 Overview of Working Paper No. 3

The Working Paper No. 3 presents the WPIS Final Standard which comprises of the 24 data domains and 2 protocols of the WPIS.

As the WPIS is targeted to be the construction industry de-facto information standard, *project participants of private sector projects and construction industry stakeholders are welcomed to review and comment* the data requirements listed in this document.

This document is organized into the following sections.

- **Section 1 – Introduction** describes the objectives WPIS.
- **Section 2 – Overview of Working Paper No. 3** describes the different sections of this Working Paper.
- **Section 3 – Background*** describes the objectives WPIS.
- **Section 4 – Works Project Information Standard*** presents the definition of WPIS.
- **Section 5 – Development of WPIS*** describes the development process of the WPIS.
- **Section 6 – WPIS Data Domains** lists the standards and IDs of the data domains covered in WPIS and the related local and international standards that have been studied.
- **Section 7 - Document Inventory** presents a list of documents or forms modeled in the data domains of WPIS. This serves as a complete reference of what documents which have been analyzed and modeled in the WPIS Data Set.
- **Section 8 - Data Inventory** presents a list of data components used in the data domains of WPIS.
- **Section 9 – Facilities to Assist the Use of WPIS**
- **Section 10 – Overview of WPIS Documentation**
- **Section 11 – Overview of PDF e-Form Documentation**
- **Section 12 – Glossary**
- **Section 13 – List of Members of Consulting Working Group**
- **Annex A – WPIS Reference Document*** presents the methodology, naming and version conventions used in the XML schema design of WPIS.
- **Annex B – Release Notes of Library of WPIS Schemas and Templates** details the WPIS schemas definition files and WPIS templates of WPIS Data Domains.
- **Annex C – PDF e-form Reference Document*** presents the mechanism and setup of PDF e-form, and how to carry out the conversion or extraction of data from the PDF e-form to WPIS compliant data file format.

- **Annex D – Release Notes of Library of WPIS PDF e-form Schemas and their Associated Data Files** detail the PDF e-form templates, PDF e-form schemas, and Conversion data files.

3 Background

There is no standard on the electronic data type and representation on the construction-related information. Project-specific protocols on electronic data representation and dissemination have to be agreed among employers, designers and contractors for each works project if the electronic mode of communication is adopted for exchanging correspondence and project information electronically.

Data contained in paper documents and unstructured electronic documents cannot be directly reused. Manual copy and paste from electronic documents, or manual input of data extracted from the paper documents and electronic documents into computer systems are required. These manual operations are not efficient and error prone due to wrong input or inaccurate data. Manual verification of the manual input data is also required. This will incur additional cost.

The Government of the Hong Kong Special Administrative Region ("The Government") initiated via the then Environment, Transport and Works Bureau (ETWB) to formulate the Works Project Information Standard (WPIS) in 2005, pursuant to the Recommendation No. 69 of the Report of Construct for Excellence.

Hewlett-Packard HK SAR Limited (HP) was commissioned by ETWB, now Development Bureau (DEVB), to carry out this WPIS project on 15 August 2005 to formulate an information standard for the delivery of works projects under the portfolios of the WPIS Project Working Group Departments through electronic modes of communications by leveraging on information technology.

The WPIS project's objective is to standardize the data components and data structures of data domains used in the construction industry and file format of data files, which will facilitate open, reliable and interoperable electronic exchange of public works project data among project participants. Upon the wide adoption by the construction industry, the WPIS will ultimately become the construction industry de-facto information standard for construction works.

WPIS comprises 2 protocols and 24 WPIS Data Domains (WDDs). The WPIS framework would allow user to define his User-defined Data Domain (UDD) in case the 24 WDDs could not meet his project usage. Users could associate the OGCIO primitive core component data types or the 24 WDDs or his UDDs as data types to the data field elements of his UDD.

A user could create his UDD data schema files manually using text editor, if he possesses the knowledge of XML schema. However, the user could use the OGCIO Business Information Modeling spreadsheet v1.0 (http://www.xml.gov.hk/en/download/bim_v1_0.xls) and the OGCIO xml data schema generation script v1.1 (http://www.xml.gov.hk/en/download/schema_gen_scripts_v1_1.zip) with reference to the OGCIO XML Schema and Management Guide version 1.3

(http://www.ogcio.gov.hk/eng/infra/download/g55-2.pdf) to compose and generate his UDD data schema files.

Alternatively, under the WPIS framework, the WPIS File Composer will be developed and posted on the DEVB web site to guide the user to define his UDD data field element names, to associate the data types with his data field elements so as to facilitate the composing of the UDD data schema files.

A naming convention of the UDD will be recommended under the WPIS framework for users to choose. The UDD naming convention aims at having the UDD names are unique as far as possible to ensure data files created base on the UDD could be verified and exchange successfully. A user could define a UDD according to his/her organization standard or practices as long as the data schema file structure of the UDD conforms to the W3C XML Schema Standard.

Development of these protocols and WDDs is carried out in stages. The development goes through three stages; prototype standard, draft standard and final standard. HP has completed the development of the prototype standards and draft standard for the data domains and protocols.

This document focuses on the presentation of the final standard for the WPIS data domains.

4 Works Project Information Standard

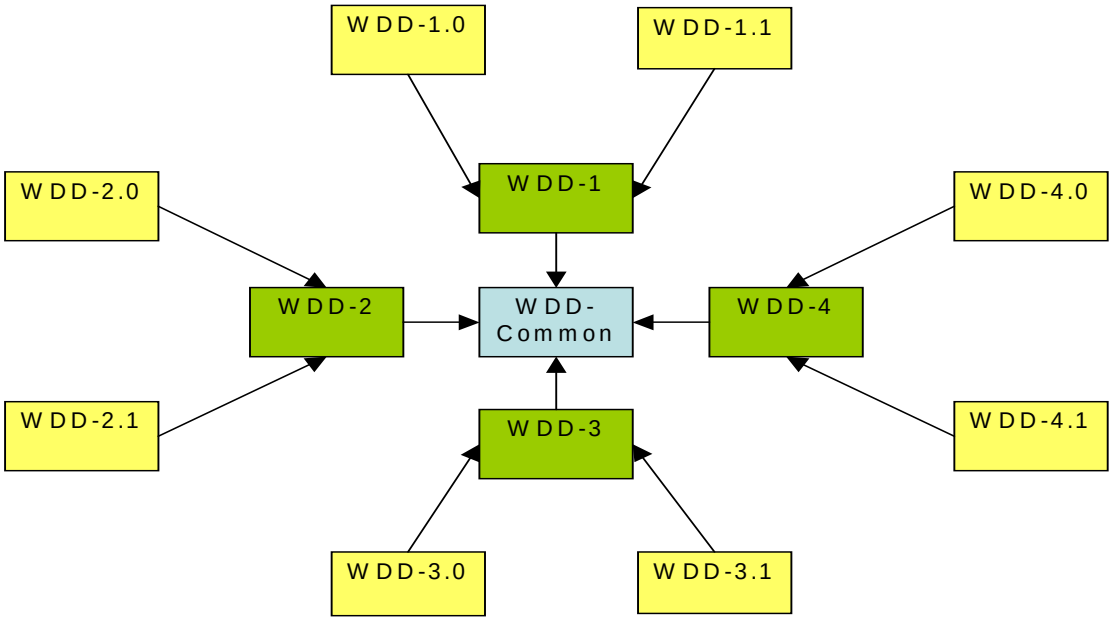
The WPIS is not an IT or database computer system, instead it is a set of standard that standardizes the data components and data structures of data domains for the construction industry and the file format of data files.

Upon wide adoption by the construction industry, WPIS will ultimately become the construction industry de-facto information standard for construction works.

4.1 WPIS Data Domain

Each WPIS data domain is a collection of data components arranged in a hierarchical structure. Each data component may have constraints associated. A data domain may contain variant. The data domain and its variant data domains will form a WPIS data domain (WDD). The variant of a data domain is known as a sub-domain of that data domain.

The following diagram shows the typical dependency between a data domain of a WDD and its sub-domains. A data domain or its sub-domain data schema file may import the Global Common Data Schema (e.g. the schema of the WDD-Common as shown in the diagram) or its Domain Common Data Schema (e.g. the schema of the WDD-4 as shown in the diagram) where appropriate.



Some data components appear not only in a data domain of a WDD but also in its sub-domains. These common data components will be modeled as Domain Common Data Components, which will be represented by specific data structures known as the Domain Common Data Schema for reuse among the data domain and its sub-domains. In doing so, these common data components will be represented consistently in a data domain and its sub-domains.

Some data components appear not only in one WDD but also in other WDDs. These common data components will be modeled as Global Common Data Components which will be represented by specific data structures known as the Global Common Data Schema for reuse across different domains. In doing so, these common data components will be represented consistently in different domains.

4.2 Design of WPIS Data Domain

Majority of data schema files in WPIS will be encoded in XML (extensible Markup Language) format. For certain data domains, such as WDD-10: CAD Standard, GIS Standard or WDD-21: Landslide Information, etc. where standard formats of exchange among government departments or within the industry already exist, specific standard formats would be referenced, these might not be in XML format.

For XML-based data domains, design of XML coding of data schemas and their associated files will follow the methodology described in Section 4 and Section 5 of Part II of the XML Schema Design and Management Guide version 1.3 (the guide can be downloaded from http://www.ogcio.gov.hk/eng/infra/eif.htm) under the Interoperability Framework for E-Government provided by the Office of Government Chief Information Officer (OGCIO).

Section 4 of the OGCIO Guide introduces the Business Information Modeling (BIM) methodology. The WDDs have been analyzed using the BIM. The BIM methodology facilitates the breaking down of a document (paper document or data file) into modular data components, which serves as the building blocks for reassembling the corresponding data domain. Complex data components are decomposed into simpler sub-components. Finally, a hierarchical structure of data components is formed to represent the data domain.

Section 5 of the OGCIO Guide provides an XML Schema generation mechanism, where each data component of a data domain has its own complex data type in order to facilitate reusability.

5 Development of the WPIS

The WPIS project objective is to standardize the data components of data domains in the construction industry and the file format of data files, which will facilitate open, reliable and interoperable electronic exchange of public works project data among project participants.

5.1 WPIS Data Domains and protocols

Initially, WPIS will comprise of 2 protocols and 24 WPIS Data Domains (WDDs). The 2 protocols and 24 Data Domains are:

WDD	Domain Standard
WDD-1	Project Contract Profile Data
WDD-2	Correspondence Profile
WDD-3	Photo Album, Pictures
WDD-4	Accident Report
WDD-5	Request for Inspection
WDD-6	Test Records
WDD-7	Site Instruction
WDD-8	Site Diary Records
WDD-9	Site Investigation Result
WDD-10	CAD Standard, GIS Standard
WDD-11	Request for Information
WDD-12	Test Requests
WDD-13	Works Order
WDD-14	Contractor submission
WDD-15	Construction Milestone Data
WDD-16	BoQ/SoR
WDD-17	CBS Standard / Cost Data
WDD-18	Contract Rates Statistics
WDD-19	Reinforced Bar Schedule
WDD-20	Bore-hole Information
WDD-21	Landslide Information
WDD-22	Rain-gauge
WDD-23	Project Management and Programme Data
WDD-24	Knowledge Management Information Distribution Standard

Protocol	Description
DISS	Dissemination protocol is the protocol used to disseminate WPIS compliant data files to other systems/recipients.
DCON	Data conversion protocol is the schema to facilitate the conversion of WPIS compliant data to proprietary data and vice versa.

5.2 Development Stages of WPIS

The development cycle of WPIS comprises of the following stages:-

1. Base-lining and Prototype Standard;
2. Draft Standard;
3. Consultation; and
4. Final Standard.

5.2.1 Stage 1 - Base-lining and Prototype Standard

This is the first stage for formulation of WPIS. The process involves the collection and review of data requirements from various sources that are commonly used in public works project and input of the construction industry stakeholders as the baseline for the prototype. In addition, international initiatives on data standard in particular for construction industry are studied as reference to define the Prototype Standard. Due to the diversity of the data domains in this batch, the data domains are divided into two categories: (i) standard forms; and (ii) reference to existing standards.

Upon completion of the Prototype Standard, WPIS Project Working Group Departments and members of the Consulting Working Group (see Section 11) are requested to review the sufficiency and the constraints of the data fields of each of the Prototype Standard of the WPIS data domains and protocols.

5.2.2 Stage 2 - Draft Standard

Comments and feedback from WPIS Project Working Group Departments and Consulting Working Group are reviewed and the Prototype Standard is revised to formulate the Draft Standard.

5.2.3 Stage 3 - Consultation

This stage introduces the Draft Standard of WPIS to the construction industry; and obtains feedback from the community on the Draft Standard of WPIS, in particular, the sufficiency of the WPIS data domains and also the requirements and concerns of construction industry organizations.

5.2.4 Stage 4 - Final Standard

Comments and feedback received from the consultation are reviewed and the Draft Standard of WPIS is amended to formulate the Final Standard of WPIS.

5.2.5 Progress Status

HP has already completed the formulation of the Prototype Standard, Draft Standard and the Consultation stages. During the formulation processes, the Standards of various stages have been reviewed by Works Departments and members of the Consulting Working Group. Refer to WPIS Working Paper No. 1.1, WPIS Working Paper No. 2.1 , WPIS Working Paper No. 1.2 and WPIS Working Paper No. 2.2 for details of the respective standards. This document presents the Final Standard for the WPIS data domains and protocols. It details the XML schema standard for the form-based data domains as well as the rationale and recommendations of referencing existing standards or systems for other data domains of WPIS.

5.3 Deliverables

This Working Paper No 3 covers the development of the Final Standard of the WPIS data domains. Although the WPIS is to be formulated for use in public works projects, project participants of the private sector could also adopt the WPIS in exchanging their project data. The WPIS is aimed at ultimately becoming the construction industry de-facto information standard for construction works.

Previous comments by members of the Project Working Group and Consulting Working Group on the Draft Standard (WPIS Working Paper No. 2.1 and WPIS Working Paper no. 2.2) have been incorporated to form this revised Final Standard document.

The Final Standard of the WPIS will be posted on the DEVB web site and will be promulgated by DEVB.

A set of software (Section 9 WPIS Software) will be developed for the composing of WPIS compliant data file, defining user defined data domain schema, automatic disseminating the WPIS compliant data file and UDD data file to the receiver and his backend computer system, if any, and converting data between WPIS/UDD compliant data file and proprietary data file. Some of the software (namely: the WPIS File Composer, the WPIS File Reader and the WPIS Messaging System) will be posted on the DEVB web site for download. **It should be noted that the WPIS Software does not form part of the Works Project Information Standard.** Use of the WPIS software is not a pre-requisite for adopting the WPIS. WPIS Software is targeted to run on Windows 2000 and Windows XP including both English and Chinese versions as per requirement.

6 WPIS Data Domains

With the 24 data domains of WPIS, certain data domains where existing government or industry standard forms are available, the data schema files in WPIS will be encoded in XML (extensible Markup Language) format. For others data domains such as WDD-10: CAD Standard, GIS Standard or WDD-21: Landslide Information, etc. where standard formats of exchange among government departments or within the industry already exists, specific standard formats would be referenced instead. Thus, the data standard for the 24 data domains can be categorized into two types: (i) XML-based Data Schema; and (ii) Referencing Existing Standards or Systems.

The following table summarizes the categorization of the WPIS data domains:

XML-based Data Standard	
WDD	**Domain Standard**
WDD-1	Project Contract Profile Data
WDD-2	Correspondence Profile
WDD-3	Photo Album, Pictures
WDD-4	Accident Report
WDD-5	Request for Inspection
WDD-6	Test Records
WDD-7	Site Instruction
WDD-8	Site Diary Records
WDD-9	Site Investigation Result
WDD-11	Request for Information
WDD-12	Test Requests
WDD-13	Works Order
WDD-14	Contractor submission
WDD-17	CBS Standard / Cost Data
WDD-18	Contract Rates Statistics
WDD-19	Reinforced Bar Schedule
WDD-21	Landslide Information
WDD-22	Rain-gauge
WDD-23	Project Management and Programme Data
Reference Existing Standards or Systems	
WDD	**Domain Standard**
WDD-10	CAD Standard, GIS Standard
WDD-15	Construction Milestone Data
WDD-16	BoQ/SoR
WDD-20	Bore-hole Information
WDD-24	Knowledge Management Information Distribution Standard

6.1 WPIS Data Domains and sub-domains

The data domains and sub-data domains of WPIS are identified in the following table.

Domain ID	Domain Standard	Message ID	Message Name
WDD-1	Project Contract Profile Data	WDD-1.0	Project Contract Profile
		WDD-1.1	Project Contract Summary
WDD-2	Correspondence	WDD-2.0	Document Profile
WDD-3	Photo Album, Pictures	WDD-3.0	Digital Album
WDD-4	Accident Report	WDD-4.0	Injury Report
		WDD-4.1	Construction Accident Statistics Monthly Summary
		WDD-4.2	Employee Compensation Summary
		WDD-4.3	Preliminary Accident Report
		WDD-4.4	Fatal Accident Supplementary Information
		WDD-4.5	Dangerous Occurrence Report
		WDD-4.6	Shipping Casualty Report
		WDD-4.7	Death Incapacity Notice
WDD-5	Request for Inspection	WDD-5.0	Inspection Survey Request
WDD-6	Test Records	WDD-6.0	Concrete Test Cube Register
		WDD-6.1	Drainage Test
		WDD-6.2	Field Density Determination
		WDD-6.3	Soil Compaction Test Summary
		WDD-6.4	Pre-stressed Tensioning Test
		WDD-6.5	Drainage Pipeline Water Test
		WDD-6.6	Bearing Expansion Joint Performance
WDD-7	Site Instruction	WDD-7.0	Site Instruction
WDD-8	Site Daily Records	WDD-8.0	Site Diary
		WDD-8.1	Inclement Weather Report
		WDD-8.2	Daywork Daily Record
		WDD-8.3	Daywork Monthly Summary
WDD-9	Site Investigation Result	WDD-9.0	Site Investigation Result
WDD-10	CAD Standard, GIS Standard	WDD-10.0	CAD Standard
		WDD-10.1	GIS Standard
WDD-11	Request for Information	WDD-11.0	Contractor’s Request for Information (RFI)
		WDD-11.1	Engineer’s Response to the Contractor’s Request for Information (RFI)
WDD-12	Test Requests	WDD-12.0	Request Form for Insitu Soil Testing - Form 2511

Domain ID	Domain Standard	Message ID	Message Name
		WDD-12.1	Request for Bituminous Materials Testing - Form 2112
		WDD-12.2	Request for Aggregate Testing - Form 2113
		WDD-12.3	Request for Paving Block Testing - Form 2317
		WDD-12.4	Request for Steel Bar Testing - Form 2403
		WDD-12.5	Request for Miscellaneous Steel Sample Testing - Form 2404
		WDD-12.6	Request for Cast Iron Drainage Goods Testing - Form 2405
		WDD-12.7	Request for Sample Collection and Testing Request for Chemical Testing Services for Concrete - Form 2201
		WDD-12.8	Request Form for Sample Collection and Testing Request for Chemical Testing Services for Soil - Form 2202
		WDD-12.9	Request Form for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory - Form 2316
		WDD-12.10	Request Form for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks - Form 2319
		WDD-12.11	Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) - Form 2407
		WDD-12.12	Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory - Form 2408
		WDD-12.13	Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) - Form 2410
		WDD-12.14	Registration Form for Testing of Construction Materials - Form 2007
		WDD-12.15	Request Form for Calibration / Checking of Equipment - Form 2017

Domain ID	Domain Standard	Message ID	Message Name
		WDD-12.16	Request Form for Steel Fabric Sample Collection Service (For PWCL) - Form 2409
		WDD-12.17	Request Form for Soil Testing For Checking of Compliance with Specification Requirements - Form 2509
		WDD-12.18	Request Form for Laboratory Soil Testing - Form 2510
WDD-13	Works Order	WDD-13.0	GF 521 Works Order
		WDD-13.1	Variation Order
		WDD-13.2	Standard Letter for Variation Order
		WDD-13.3	Current Financial Statement
WDD-14	Contractor Submission	WDD-14.0	Contractor's General Submission
		WDD-14.1	Inventory Record Form for Furniture and Equipment Which Shall be Returned to the Contractor
		WDD-14.2	Record Form For Bituminous Materials Delivered To Site
		WDD-14.3	Mandatory Provident Fund Notification Form
		WDD-14.4	Shotfirer's Charging Details
		WDD-14.5	Contractor's Design Submission
		WDD-14.6	Contractor's Material Submission
WDD-15	Construction Milestone Data	WDD-15.0	Construction Milestone Data
WDD-16	BoQ/SoR	WDD-16.0	Bill of Quantities/Schedule of Rates
WDD-17	CBS Standard / Cost Data	WDD-17.0	Running Abstract
WDD-18	Contract Rates Statistics	WDD-18.0	Contract Rate Statistics
		WDD-18.1	Contract Rate Information
WDD-19	Reinforced Bar Schedule	WDD-19.0	Reinforced Bar Schedule
WDD-20	Bore-hole Information	WDD-20.0	Bore Hole Information
WDD-21	Landslide Information	WDD-21.0	Slope Information
WDD-22	Rain-Gauge	WDD-22.0	Rain Gauge
WDD-23	Project Management and Programme Data	WDD-23.0	Statistic of Claim
		WDD-23.1	Claim Registry
		WDD-23.2	Contract Information of Claim
WDD-24	Knowledge Management Information	WDD-24.0	Knowledge Management Information Distribution

Domain ID	Domain Standard	Message ID	Message Name
	Distribution Standard		

7 Document Inventory

This section provides a document inventory that has been used for the analysis to produce the data requirements. For data domains that are based on XML-based data standard, sample documents are collected from various sources including: the Construction Site Safety Manual (CSSM), the Project Administration Handbook (PAH), and Works Project related documents from DEVB and Works Departments, are studied. For other data domains that reference existing standards or systems, the documentation of those standards and systems studied are collected from the corresponding organizations, government departments and business sector.

The following table lists the sample documents or system data that have been analyzed for developing WPIS standard.

Data Domain	Standards	Data Collection and References	Source of Reference
WDD-1	Project Contract Profile Data	Project profile web pages in various departments. CSSM Chapter 9 - Summary of Details of Contract	DEVB & CEDD
WDD-2	Correspondence	Sample correspondence documents from the business sector.	Ove Arup
WDD-3	Photo Album, Pictures	Digital Album for Contract Progress Photo sample in the assignment brief	DEVB
WDD-4	Accident Report	Reports and forms from CSSM Chapter 9.	DEVB
WDD-5	Request for Inspection	PAH Appendix 7.9 – Inspection / Survey Check Request Form	CEDD
WDD-6	Test Records	Testing forms from PAH Appendix 7.	CEDD
WDD-7	Site Instruction	PAH Appendix 7.5 – Site Instruction Form	CEDD
WDD-8	Site Daily Records	Sample site diary forms from the business sector and forms from PAH Appendix 7.	Ove Arup & CEDD
WDD-9	Site Investigation Result	Sample site investigation result documents from the business sector	Ove Arup
WDD-10	CAD Standard, GIS Standard	Reference standards: 1. CAD Standard for Works Project 1.02.00, September 2002 (http://www.devb-wb.gov.hk/FileManager/EN/electronic_services/comp_aid_draft_sta	Works Branch, DEVB

Data Domain	Standards	Data Collection and References	Source of Reference
		ndard/cad_standard/cswp%20v1.02.00.pdf) 2. Implementation of Data Alignment Measures for the Alignment of Planning, Lands and Public Works Data – Final Report (Volume 2F) Inventory of GIS Maps, March 2004 (http://www.devb-plb.gov.hk/eng/publication/pdf/frv2F.pdf)	Planning and Lands Branch, DEVB
WDD-11	Request for Information	Submission Forms used by construction consultants: 1. Request for Information 2. Engineer's Response to Request for Information	Ove Arup
WDD-12	Test Requests	Based on the 19 forms from Public Works Central Lab: 1. FORM 2511 - Request Form for Insitu Soil Testing 2. FORM 2112 - Request Form for Bituminous Materials Testing 3. FORM 2113 - Request Form for Aggregate Testing 4. FORM 2317 - Request form for Paving Block Testing 5. FORM 2403 - Request form for Steel Bar Testing 6. FORM 2404 - Request Form for Miscellaneous Steel Sample Testing 7. FORM 2405 - Request Form for Cast Iron Drainage Goods Testing 8. FORM 2201 - Request Form for Sample Collection and Testing Request For Chemical Testing Services For Concrete 9. FORM 2202 - Request Form for Sample Collection and Testing Request For Chemical Testing Services For Soil 10. FORM 2316 - Request Form for Sample Collection And Testing	Public Works Lab, CEDD

Data Domain	Standards	Data Collection and References	Source of Reference
		Services For Clay/Concrete Paving Blocks Provided By PWL Contract Laboratory 11. FORM 2319 - Request Form for Sample Collection Service and Testing Request For Grade A Concrete Paving Blocks, Granite and Artificial Granite Pavers 12. FORM 2407 - Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) 13. FORM 2408 - Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory 14. FORM 2007 - Registration Form for Testing of Construction Materials 15. FORM 2017 - Request Form for Calibration / Checking of Equipment 16. FORM 2409 - Request Form for Steel Fabric Sample Collection Service (For PWCL) 17. FORM 2410 - Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) 18. FORM 2509 - Request Form for Soil Testing For Checking of Compliance with Specification Requirements 19. FORM 2510 - Request Form for Laboratory Soil Testing	
WDD-13	Works Order	Based on the Government Form GF521 and the three forms from Project Administration Handbook (PAH 2006 Edition) as identified in the WAB: 1. GF521 Works Order 2. Appendix 7.21 – Variation Order Form 3. Appendix 7.22 – Standard Letter for Variation Order 4. Appendix 7.23 – Current Financial	GLD and CEDD

Data Domain	Standards	Data Collection and References	Source of Reference
		Statement	
WDD-14	Contractor Submissions, including Exception Reporting	Based on the four forms from Project Administration Handbook (PAH 2006 Edition), as well as three additional submission forms from the industry: PAH Forms: 1.Appendix 7.8 – Inventory Record Form for Furniture and Equipment which shall be Returned to the Contractor 2.Appendix 7.15 – Record Form for Bituminous Materials Delivered to Site 3.Appendix 7.41 – Mandatory Provident Fund Notification Form 4.Appendix 7.42 – Shotfirer's Charging Details Submission Forms used by construction consultants: 1. Contractor's Design Submission 2. Contractor's Material Submission, and 3. Contractor's General Submission	CEDD and Ove Arup
WDD-15	Construction Milestone Data	Reference Construction Milestone Data submission from the industry: 1. CSV format of Construction Milestone Data	Microsoft and Primavera
WDD-16	BoQ/SoR	Reference Works Departments BoQ/SoR Standard: 1. ETWB TCW 19/2005 Appendix E	DEVB
WDD-17	CBS Standard/Cost Data	Based on the form from Project Administration Handbook (PAH 2006 Edition): 1. Appendix 9.10 – Running Abstract	CEDD
WDD-18	Contract rates statistics	Reference Contract Rate System Data:	DEVB

Data Domain	Standards	Data Collection and References	Source of Reference
		1. Works Group of Departments Contract Rate Database System User Manual	
WDD-19	Reinforced Bar Schedule	Based on the form from Project Administration Handbook (PAH 2006 Edition): 1. Appendix 7.13 – Bar Bending Schedule	CEDD
WDD-20	Bore-hole information	Reference Current Standard: 1. The Association of Geotechnical and Geoenvironmental Specialists (AGS) Electronic Transfer of Geotechnical and Geoenvironmental Data (Edition 3.1) including addendum May 2005	AGS
WDD-21	Landslide Information	Reference Slope Information System Data: 1. Building Department PNAP 168 Version 2 (http://hkss.cedd.gov.hk/hkss/eng/download/pnap168/appendix.zip) 2. The associated documents for updating SIS (http://hkss.cedd.gov.hk/hkss/eng/download/pnap168/index.htm)	BD
WDD-22	Rain-gauge	Reference GEO (Geotechnical Engineering Office) System Data: 1. GEO Raingauge Sample Data 2. GEO Data Disclaimer	GEO, CEDD
WDD-23	Project Management and Programme data	Based on the three forms used by two of the Development Offices in CEDD: 1. Form A – Statistic of Claims 2. Form C – Claim Registry 3. Form D – Contract Information of Claim	HKI&IDO and NTN&WDO, CEDD

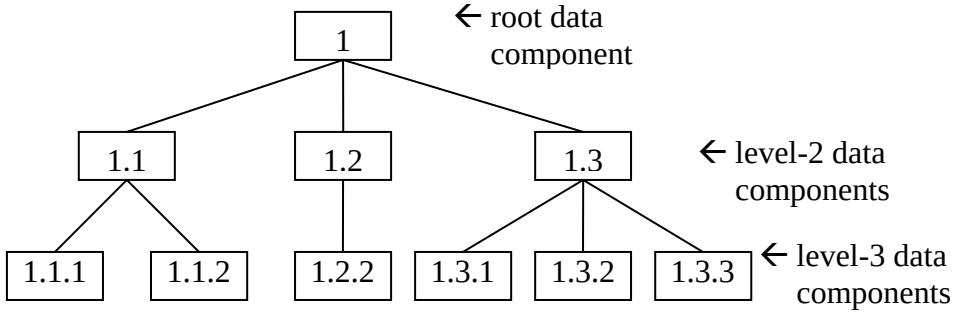
Data Domain	Standards	Data Collection and References	Source of Reference
WDD-24	Knowledge Management Information Distribution Standard	Reference Current Standard: 1. RSS Specification (http://www.rssboard.org/rss-specification)	W3C

8 Data Inventory

For data domains that are based on XML-based data standard, the data inventory is presented as a series of *data components* that are assembled into electronic message format called the WPIS Message. In other words, a WPIS Message is a hierarchical structure of data components. The hierarchical structure (or data type) of a particular data component is represented by its corresponding *data type*. These data types can be reused to define other data components in the User Defined Data Domain (UDD). One data component located in the top level is called the root data component and its data type is called *root data type*.

Each data structure table in the following sub-sections describes the hierarchical structure of a message. Each row in the table describes a data component and the corresponding data type. Each row contains five columns:

(a) The first column is the level number, which indicates the hierarchical order of a data component. The top level number 1 is the root data component of the data domain. The second level number 1.3, for example, indicates the third data component under the root data component. If data component 1.3 is a compound data component, it contains other sub-components, where, for example, the second data component will be numbered 1.3.2 in the third level. The following diagram illustrates the typical ordering convention.



(b) The second column is the name of the data component.

(c) The third column specifies the data type that represents the structure of the data component. A data type is either a primitive core component type[1] or a WDD-defined complex data type. To avoid repetitive expansion of the data structure of a particular data type in different occurrences within the data inventory, the data structure of that data type is only expanded once at its first occurrence in the message. For example, the data structure for a Signature type is only expanded once at the first data component that belongs to a Signature type (e.g. Completing Person Signature) and is not expanded at the latter Signature component (e.g. Acknowledging Person Signature).

(d) The fourth column describes the constraints identified for the concerned data component. This column indicates whether a data component is

[1] Core component types are basic data types for business information modeling defined in the HKSARG Interoperability Framework.

mandatory (i.e. non-nullable) or optional (i.e. nullable), and whether it will occur once or multiple times. When a data component is mandatory, a user is required enter a non-null (i.e. non-empty) value for the component. On the contrary, when a data component is optional, a user can choose not to enter a value for the component. Data components listed in the data structure table will always be displayed in the WPIS File Composer, a freely available tool provided by DEVB for the composition of WPIS compliant data files, for data entry. Apart from whether a data component is mandatory or optional, other data constraints (e.g. field length of a text component) if any, are also indicated. ***Project participants of private sector projects and construction industry stakeholders are welcomed to review and comment on these data requirements***.

(e) The fifth column describes the definition of the data component.

8.1 WPIS Data Domains

8.1.1 WDD-1 Project Contract Profile Data

This data domain contains basic information of a project or contract, such as client, duration, objective, location, project/contract number, etc., and can serve as a data sheet of the project/contract. WDD-1 contains the following two messages:

1. WDD-1.0 Project Contract Profile; and
2. WDD-1.1 Project Contract Summary

8.1.1.1 WDD-1.0 Project Contract Profile Message

The Project Contract Profile contains detailed project information, including sensitive data components, such as cost, anticipated/actual commencement/completion dates, progress, etc.

The following web pages of the Departments have been analyzed to identify the data components of the Project Contract Profile message:

Department	Web Site	Web Page
Architectural Services Department	http://www.archsd.gov.hk	Capital Projects Under Construction
		Capital Projects Under Planning
Civil Engineering and Development Department	http://www.cedd.gov.hk	Major On-going Project
Drainage Services Department	http://www.dsd.gov.hk	Flood Prevention Projects
Environmental Protection Department	http://www.epd.gov.hk	Construction Contracts in Operation
Highways Department	http://www.hyd.gov.hk	Major Works
		Major Projects
Transport Department	http://www.td.gov.hk	Works Contract
Water Supplies Department	http://www.wsd.gov.hk	Active WSD Capital Works Contracts
		Press Release and Tender Notices

The data structure of the WDD-1.0 Project Contract Profile message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-1.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-1.0-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Project Contract Profile	Project Contract Profile	-	Document for a works project/contract profile.
1.1	Project Contract Number	Identifier	Optional / Once	Works project/contract number, which is an identifier of a project/contract.
1.2	Project Contract Title	Text	Mandatory / Once	Title of a works project/contract.
1.3	Objective	Text	Optional / Once	Objective of a works project/contract.
1.4	Works Location	Text	Optional / Once	Location at which a works project/contract is conducted.
1.5	Type	Text	Mandatory / Once	Type of a works project/contract, for example, flood prevention, social welfare, etc.
1.6	Building Type	Text	Optional / Once	Type of building constructed, for example, recreation, service for offender, border facility, etc.
1.7	Scope	Text	Optional / Once	Scope of a works project/contract.
1.8	Progress	Text	Optional / Once	Progress of a works project/contract.
1.9	Cost	Amount	Optional / Once	Monetary value of a works project/contract.
1.10	Consultant	Name	Optional / Multiple	Name of consultant of a works project/contract.

Level No.	Data Component	Type	Constraints	Definition
1.11	Contractor	Name	Optional / Multiple	Name of contractor of a works project/contract.
1.12	Award Date	Date	Optional / Once	Date on which a works project/contract is awarded.
1.13	Commencement Date	Quarter Date	Optional / Once	Information on the date on which a works project/contract commences.
1.13.1	Day	Numeric	Optional / Once Min. Incl. = 1, Max. Incl. = 31	Day of month of a date.
1.13.2	Month	Numeric	Optional / Once Min. Incl. = 1, Max. Incl. = 12	Month of a date.
1.13.3	Quarter	Numeric	Optional / Once Min. Incl. = 1, Max. Incl. = 4	Quarter of year in which a date falls.
1.13.4	Year	Numeric	Optional / Once Tot. Digits = 4	Year of a date.
1.14	Anticipated Completion Date	Quarter Date	Optional / Once	Information on the date on which a works project/contract is anticipated to be completed.
1.15	Actual Completion Date	Quarter Date	Optional / Once	Information on the date on which a works project/contract is completed.
1.16	Duration	Project Contract Duration	Optional / Multiple	Duration of a works project/contract.

Level No.	Data Component	Type	Constraints	Definition
1.16.1	Project Contract Section	Text	Mandatory / Once	Section of a works project/contract.
1.16.2	Duration	Measure	Mandatory / Once	Time duration of a particular section of a works project/contract.
1.17	Website	URI	Optional / Once	Website of a works project/contract.
1.18	Remark	Text	Optional / Once	Remark related to a works project/contract.
1.19	Contact Person Name	Name	Optional / Once	Name of contact person of a works project/contract.
1.20	Contact Person Organization	Name	Optional / Once	Organization with which a contact person of a works project/contract affiliates.
1.21	Contact Person Address	Text	Optional / Once	Address of contact person of a works project/contract.
1.22	Contact Person Telephone Number	Text	Optional / Once	Telephone Number of contact person of a works project/contract.
1.23	Client Organization	Name	Mandatory / Once	Client organization of a works project/contract.
1.24	Client Office	Name	Mandatory / Once	Office of client of a works project/contract.
1.25	Client Division	Name	Mandatory / Once	Division of client of a works project/contract.
1.26	Resident Engineer	Name	Optional / Once	Name of resident engineer of a works project/contract.
1.27	Sub Contract No	Text	Optional / Multiple	Contract No. of the Sub Contract under a works project/contract.

8.1.1.2 WDD-1.1 Project Contract Summary Message

The Project-Contract Summary contains only non-sensitive data components.

The following is the Summary Details of Contract form in the CSSM Chapter 9:

C9-AV-P02 (Ver. July 2001)

Summary of Details of Contract
(To be submitted within 30 days after award of contract)

Part A (Data that can be obtained from Construction Management Information System)

1. Contract No. and Brief Contract Title:

2. Department / Office / Division:

3. Name of Contractor:

4. Contract Sum:

Part B (Additional information to be input into the PCAS system)

5. (a) Contract Commencement Date:
   (b) Anticipated Contract Completion Date:

6. Officers in Charge: Project Officer Consultants RSS
   (a) Name (in Block Letters):
   (b) Post Title:
   (c) Contact Telephone No.:
   (d) Fax No. :

7. Nature of Works: (Can tick more than one box)

Building	[ ]	Site Formation	[ ]
Roads and Drainage	[ ]	Landscape	[ ]
Water Works	[ ]	Ground Investigation	[ ]
Geotechnical Works	[ ]	Electrical & Mechanical Works	[ ]
Port Works	[ ]		

8. Type of Contract: (Can have more than one selection)
   * Civil / Building / Term / Specialist / Maintenance / Design & Build

   with Safety Plan included (*Yes / No)

   under Pay for Safety Scheme (PFSS) (*Yes / No)

   under Independent Safety Audit Scheme (ISAS) (*Yes / No)

   (Note: (*) Delete as appropriate)

The data structure of the WDD-1.1 Project Contract Summary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-1.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-1.1-1.0_CodeList.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-1.1-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Project Contract Summary	Project Contract Summary	-	Document for a works project/contract summary.
1.1	Project Contract Number	Identifier	Mandatory / Once	Project/contract number.
1.2	Project Contract Title	Test	Optional / Once	Project/contract title.
1.3	Client Organization	Name	Mandatory / Once	Client organization of a works project/contract.
1.4	Client Office	Name	Mandatory / Once	Office of client of a works project/contract.
1.5	Client Division	Name	Mandatory / Once	Division of client of a works project/contract.
1.6	Contractor	Name	Mandatory / Once	Name of contractor of a works project/contract.
1.7	Project Contract Sum	Amount	Mandatory / Once	Monetary value of a works project/contract.
1.8	Commencement Date	Date	Mandatory / Once	Date on which a works project/contract commences.
1.9	Anticipated Completion Date	Date	Mandatory / Once	Date on which a works project/contract is anticipated to be completed.

Level No.	Data Component	Type	Constraints	Definition
1.10	Project Officer	Officer	Mandatory / Once	Information on a project officer who is responsible for a works project/contract.
1.10.1	Name	Name	Mandatory / Once	Name of an officer.
1.10.2	Title	Text	Mandatory / Once	Title of an officer.
1.10.3	Telephone Number	Text	Mandatory / Once	Telephone number of an officer.
1.10.4	Fax Number	Text	Mandatory / Once	Fax number of an officer.
1.11	Resident Site Staff	Officer	Mandatory / Once	Information on a resident site staff who is responsible for a works project/contract.
1.12	Works Nature	Code	Mandatory / Multiple Enumeration = B,R,W,G,P,S,L,I,E	Works nature of a works project/contract.
1.13	Project Contract Type	Code	Mandatory / Multiple Enumeration = C,B,T,S,M,D	Type of a works project/contract.
1.14	Safety Plan Indicator	Boolean	Mandatory / Once	Flag indicating whether any safety plan is included in a works project/contract.
1.15	PFSS Indicator	Boolean	Mandatory / Once	Flag indicating whether a works project/contract is under the Pay for Safety Scheme.

Level No.	Data Component	Type	Constraints	Definition
1.16	ISAS Indicator	Boolean	Mandatory / Once	Flag indicating whether a works project/contract is under the Independent Safety Audit Scheme.

The code lists used in this message are listed below:

Data component: Project Contract Summary/Works Nature

Code	Description
B	Building
R	Roads and Drainage
W	Water Works
G	Geotechnical Works
P	Port Works
S	Site Formation
L	Landscape
I	Ground Investigation
E	Electrical and Mechanical Works

Data component: Project Contract Summary/Project Contract Type

Code	Description
C	Civil
B	Building
T	Term
S	Specialist
M	Maintenance
D	Design and Build

8.1.2 WDD-2 Correspondence

This data domain defines the index data or metadata of a document. This data domain contains the data components which are considered common to any electronic document management systems. The documents falling in this data domain could be letters, memos, meeting records, submissions, e-mails or any electronic file.

Sample correspondence documents have been analyzed. They share a similar cover page and have different unstructured main contents attached. The cover page is modeled as a document header. The electronic file of the entire correspondence will be modeled as an attaching file. Some documents come with a response indicator indicating whether a response is needed. Moreover, a correspondence usually has the sender's designation and signature, which is represented by a digital signature. WDD-2 contains one message:

1. WDD-2.0 Document Profile

8.1.2.1 WDD-2.0 Document Profile

The data structure of the WDD-2.0 Document Profile message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-2.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-2.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Document Profile	Document Profile	-	Document for a profile of a document file to be exchanged.
1.1	Document Date	Date	Optional / Once	Date on which a document is prepared.
1.2	Sender Reference	Identifier	Optional / Once	Sender's reference number of a document.
1.3	Recipient Reference	Identifier	Optional / Once	Recipient's reference number of a document.
1.4	Sender Name	Name	Mandatory / Once	Name of a sender.
1.5	Sender Title	Text	Optional / Once	Title of a sender.
1.6	Sender Organization	Name	Optional / Once	Organization with which a sender affiliates.
1.7	Sender Telephone Number	Text	Optional / Once	Telephone number of a sender.
1.8	Sender Fax Number	Text	Optional / Once	Fax number of a sender.
1.9	Sender Email Address	Electronic Address	Optional / Once	Email address of a sender.

Level No.	Data Component	Type	Constraints	Definition
1.10	Sender Website	URI	Optional / Once	Website address of a sender.
1.11	Recipient	Recipient	Mandatory / Multiple	Recipient of a document.
1.11.1	Name	Name	Mandatory / Once	Name of a recipient.
1.11.2	Organization	Name	Optional / Once	Organization with which a recipient affiliates.
1.11.3	Fax Number	Text	Optional / Once	Fax number of a recipient.
1.11.4	Email Address	Electronic Address	Optional / Once	Email address of a recipient.
1.12	CC Recipient	Recipient	Optional / Multiple	Carbon copy recipient of a document.
1.13	BCC Recipient	Recipient	Optional / Multiple	Blind carbon copy recipient of a document.
1.14	Project Contract Number	Identifier	Optional / Once	Identifier of a project/contract that is related to the document.
1.15	Subject Caption	Text	Optional / Once	Subject of a document.
1.16	Message Body	Message Body	Mandatory / Once	The message body as an attachment to the data file.
1.16.1	Attachment File Name	Name	Mandatory / Once	Name of file attached as a message body.
1.17	Attachment File Name	Name	Optional / Multiple	Name of file attached to a document.
1.18	Digital Signature	Signature	Optional / Once	Signature presents in a document.

8.1.3 WDD-3 Photo Album, Pictures

This domain standardizes the data on digital record photographs, pictures and associated descriptions such as dates, location, description & purpose. The photographs could be the progress photographs of a project or contract.

WDD-3 contains only one message:

1. WDD-3.0 Digital Album

8.1.3.1 WDD-3.0 Digital Album Message

A sample Digital Album for Contract Progress Photo form is as shown below:

Digital Album for Contract Progress Photo		
Contract No.:		
Contract Title:		
Contractor:		
Date:		No. of photos attached:
Photo	**Description**	
Thumb-nail photos with hyperlinks to enlarged photos.		
Add/delete Row		

Remark: _____

_____

_____

Prepared by: _____

Designation: _____

The data structure of the WDD-3.0 Digital Album message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-3.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-3.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Digital Album	Digital Album	-	Document for a digital album.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract for which a digital album is prepared.
1.2	Contract Title	Text	Mandatory / Once	Title of contract for which a digital album is prepared.
1.3	Contractor	Name	Mandatory / Once	Contractor of a contract for which a digital album is prepared.
1.4	Date	Date	Mandatory / Once	Date on which a digital album is prepared.
1.5	Photograph Count	Count	Mandatory / Once	Number of photographs in a digital album.
1.6	Item	Album Item	Mandatory / Multiple	Item of a digital album.
1.6.1	Attachment Image	Name	Mandatory / Once	Attachment file name of an album item.
1.6.2	Description	Text	Mandatory / Once	Textual description of an album item.
1.7	Remark	Text	Optional / Once	Remark related to a digital album.
1.8	Preparing Person Signature	Signature	Optional / Once	Signature of a person who prepares a digital album.

Level No.	Data Component	Type	Constraints	Definition
1.9	Preparing Person Title	Text	Optional / Once	Title of a person who prepares a digital album.
1.10	Preparing Person Name	Name	Mandatory / Once	Name of a person who prepares a digital album.

8.1.4 WDD-4 Accident Report

The accident reports in this data domain are extracted from the Construction Site Safety Manual (Form 2, Employees' Compensation Ordinance (Cap. 282) Section 15, and Notice by Employer of the Death of an Employee or of an Accident to an Employee Resulting in Death or Incapacity) and other data elements from Construction Safety Statistic Monthly Summary.

The WDD-4 data domain contains the following eight messages:

1. WDD-4.0 Injury Report
2. WDD-4.1 Construction Accident Statistics Monthly Summary
3. WDD-4.2 Employee Compensation Summary
4. WDD-4.3 Preliminary Accident Report
5. WDD-4.4 Fatal Accident Supplementary Information
6. WDD-4.5 Dangerous Occurrence Report
7. WDD-4.6 Shipping Casualty Report
8. WDD-4.7 Death Incapacity Notice

8.1.4.1 WDD-4.0 Injury Report Message

The following is the Injury Report form in the CSSM Chapter 9:

C9-AVI (Ver. July 2001)

Injury Report Form

The Form should be completed by Safety Officer or Site Agent of Principal Contractor within seven days on occurrence of accident resulting in death or injury with incapacity for more than three days.

Contract number _____ Ref. No. of injury _____

A. Please fill in or tick the **PERSONAL INFORMATION OF THE INJURED WORKER**

1. Name (surname first) _____
2. Age _____
3. Sex [ ] Male [ ] Female
4. Imported labourer [ ] Yes [ ] No
5. Years of construction site experience _____ years
6. No. of months worked at this site _____ months

B. Please fill in the **PARTICULARS OF EMPLOYER** of injured worker

Name of company / employer (If not principal contractor) _____

C. Please fill in or tick the **DESCRIPTION OF ACCIDENT**

1. Date of accident ____ (dd) / ____ (mm) / ____ (yy)
2. Anticipated severity of injury
   1 [ ] Minor (with no hospitalization or hospitalization less than 24 hours)
   2 [ ] serious (with hospitalization more than 24 hours)
   3 [ ] Death
3. Period of Incapacity (in dd/mm/yy) :
   Start date of sick leave (in dd/mm/yy) : _____ / _____ / _____ (if different from the date of accident)
   End date of sick leave (in dd/mm/yy) : _____ / _____ / _____ (to be provided when known)

D. Please tick the appropriate **TRADE** of the injured worker (tick one box only)

Semi-skilled worker / General worker

1. [ ] Chainman
2. [ ] Concreting labourer
3. [ ] Drilling assistant
4. [ ] Excavator
5. [ ] Labourer

Management / Foreman

11. [ ] Manager / Site Engineer / General Foreman
12. [ ] Ganger

Tradesman

21. [ ] Bamboo scaffolder
22. [ ] Bar bender and fixer
23. [ ] Bricklayer
24. [ ] Building services / E&M worker
25. [ ] Carpenter (fender)
26. [ ] Carpenter (formworker)
27. [ ] Concretor
28. [ ] Construction / Mechanical plant mechanic or fitter
29. [ ] Diver
30. [ ] Drainlayer / Mainlayer
31. [ ] Demolition Worker
32. [ ] General welder
33. [ ] Joiner
34. [ ] Leveller
35. [ ] Marine construction plant operator
36. [ ] Mason
37. [ ] Metal worker
38. [ ] Metal scaffolder
39. [ ] Painter and decorator
40. [ ] Piling operative
41. [ ] Plant & equipment operator (builders lift & other machinery)
42. [ ] Plant & equipment operator (earthmoving machinery)
43. [ ] Plant & equipment operator (hoist and crane)
44. [ ] Plant & equipment operator (piling)
45. [ ] Plant & equipment operator (tunnelling)
46. [ ] Plasterer
47. [ ] Plumber
48. [ ] Pneumatic driller
49. [ ] Rigger / Metal formwork erector
50. [ ] Structural steel erector
51. [ ] Truck and other vehicle driver
52. [ ] Tunnel worker

60. [ ] Others please specify, e.g. security staff / watchman _____

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E. Please tick the **PLACE OF ACCIDENT** (tick one box only)

1. [ ] Roof / Top of building
2. [ ] Lift shaft / Internal work surface
3. [ ] Stair / Passage
4. [ ] Excavation / Underground / Basement
5. [ ] Tunnel / Sewer / Drain / Nullah
6. [ ] Ladder
7. [ ] External work / Scaffolding / Gondola
8. [ ] Steel bending yard
9. [ ] Pre-casting / Prestressing yard
10. [ ] Floor / Floor opening
11. [ ] Falsework and formwork
12. [ ] Others (specify) _____

F. Please refer to the list below and write down the code of the **NATURE OF INJURY AND PART OF BODY INJURED** respectively. The information to be collected is similar to **Section J of Labour Department Form 2**. (If the victim has more than one injury in the accident, please specify separately. For example, in the case of burn in face and dislocation in elbow, please write down "5, 26" in first injury and "9, 44" in second injury.)

	1st injury	2nd injury	3rd injury
Nature of injury incurred (1-20)			
Part of body injured (21-60)			

Nature of injury

1. Abrasion
2. Amputation
3. Asphyxia
4. Burn (heat)
5. Burn / Scald
6. Contusion & bruise
7. Concussion & other internal injury
8. Laceration and cut
9. Dislocation
10. Crushing
11. Electric shock / Effects of electric current
12. Fracture
13. Puncture
14. Sprain / Strain / Twist
15. Freezing
16. Poisoning and gassing
17. Irritation
18. Nausea
19. Multiple Injuries
20. Others (specify) _____

Part of body injured

HEAD	NECK & TRUNK	UPPERLIMBS	LOWERLIMBS
21. Skull / Scalp	31. Neck	41. Finger	51. Hip
22. Eye	32. Back	42. Hand / Palm	52. Thigh
23. Ear	33. Chest	43. Forearm	53. Knee
24. Mouth/ Tooth/ Lip	34. Abdomen	44. Elbow	54. Leg
25. Nose	35. Trunk	45. Upper arm	55. Ankle
26. Face/ Cheek/ Chin	36. Pelvis / Groin	46. Shoulder	56. Foot / Toe
	37. Waist	47. Wrist	60. Others (specify) _____

G. Please tick the appropriate **TYPE OF ACCIDENT**. (Can tick more than one box)
The information to be collected is similar to **Section K of Labour Department Form 2** with additional items.

1. [ ] Trapped in or between objects
2. [ ] Injured whilst lifting or carrying / manual lifting / manual handling / Handling without machinery
3. [ ] Slip, trip or fall on same level
4. [ ] Fall of person from height ____ metres
5. [ ] Striking against fixed or stationary object
6. [ ] Striking against moving object
7. [ ] Stepping on object / nail
8. [ ] Exposure to or contact with harmful substance (e.g. poison gas, toxic, corrosive substance)
9. [ ] Contact with electricity or electric discharge
10. [ ] Trapped by collapsing or overturning object
11. [ ] Struck by moving or falling object
12. [ ] Struck by moving vehicle / Traffic accident
13. [ ] Contact with moving machinery or object being machined
14. [ ] Drowning or asphyxiation
15. [ ] Exposure to fire / burning
16. [ ] Exposure to explosion
17. [ ] Dust / foreign particle in eye
18. [ ] Hand tool accident
19. [ ] Crushing / Burial
20. [ ] Machinery operation accident
21. [ ] Others (specify) _____

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H. Please tick the appropriate **AGENT INVOLVED**. (Can tick more than one box)
The information to be collected is similar to **Section L of Labour Department Form 2** with additional items.

1. [ ] Equipment for lifting / conveying
2. [ ] Portable power or hand tools
3. [ ] Other machinery (specify) _____
4. [ ] Material / Product being handled or stored
5. [ ] Ladder or working at height
6. [ ] Sewage, manhole or other confined space
7. [ ] Movable container or package of any kind
8. [ ] Floor, ground, stairs or any working surface
9. [ ] Gas, vapour, dust or fume
10. [ ] Electricity supply, wiring apparatus or equipment
11. [ ] vehicle or associated equipment or machinery
12. [ ] Construction formwork, shuttering & falsework
13. [ ] Nail, splinter or chipping
14. [ ] Scaffolding / Gondola
15. [ ] Excavation / Underground work
16. [ ] Slope
17. [ ] Steel bar / rod
18. [ ] Pipe
19. [ ] Others (specify) _____

I. Please tick the **TYPE OF WORK PERFORMED** by the injured worker at the time of accident. (Tick one box only)
The information to be collected is similar to **Section N of Labour Department Form 2** with additional items.

1. [ ] Concreting
2. [ ] Woodworking
3. [ ] Glazier work
4. [ ] Reinforcement bar bending
5. [ ] Bamboo scaffolding
6. [ ] Metal scaffolding
7. [ ] Painting
8. [ ] Plastering
9. [ ] Arc / Gas welding
10. [ ] Formwork erection
11. [ ] Brick laying
12. [ ] Caisson work
13. [ ] Trench work
14. [ ] Gas Pipe fitting
15. [ ] Water pipe fitting
16. [ ] Electrical Wiring
17. [ ] Material handling
18. [ ] Lift installation
19. [ ] Slope work
20. [ ] Mixing
21. [ ] Demolition
22. [ ] Road work
23. [ ] Erection of structural elements
24. [ ] Falsework
25. [ ] Surface treatment
26. [ ] Cutting
27. [ ] Piling
28. [ ] Finishing work
29. [ ] Others (specify) _____

J. Please tick the appropriate **UNSAFE ACTION**. (Can tick more than one box)

1. [ ] Operating without authority
2. [ ] Failure to secure objects
3. [ ] Making safety devices inoperative
4. [ ] Working on moving or dangerous equipment
5. [ ] Use unsafe equipment / Use equipment unsafely
6. [ ] Adopting unsafe position or posture
7. [ ] Operating or working at unsafe speed
8. [ ] Unsafe loading, placing, mixing etc
9. [ ] Failure to use helmet
10. [ ] Failure to use proper footwear
11. [ ] Failure to use eye protector
12. [ ] Failure to use respirator
13. [ ] Failure to use proper clothing
14. [ ] Failure to warn others or give proper signals
15. [ ] Horseplay
16. [ ] Smoking / Burning
17. [ ] Failure to use safety belt / harness
18. [ ] Failure to use gloves
19. [ ] Use unsuitable access / Failure to use access
20. [ ] Lapse of attention
21. [ ] Others (specify) _____

K. Please tick the appropriate **UNSAFE CONDITION**. (Can tick more than one box)

1. [ ] No protective gear
2. [ ] Defective protective gear
3. [ ] Improper dress / footwear
4. [ ] Improper guarding / No guarding
5. [ ] Improper ventilation
6. [ ] Improper illumination
7. [ ] Improper procedure
8. [ ] Unsafe layout of job, traffic etc
9. [ ] Unsafe process or job methods
10. [ ] Poor housekeeping
11. [ ] Lack of warning system
12. [ ] Defective tool, machinery or material
13. [ ] Improper stacking / storage
14. [ ] Adverse weather
15. [ ] Inadequate working space / platform
16. [ ] Slippery area
17. [ ] Inadequate tools and protective equipment
18. [ ] Others (specify) _____

L. Please tick the appropriate **PERSONAL FACTOR** which cause the accident. (Can tick more than one box)

1. [ ] Incorrect attitude / motive
2. [ ] Lack of knowledge or skill
3. [ ] Physical defects
4. [ ] Unsafe act by another person
5. [ ] Fatigue / Exhaustion
6. [ ] Carelessness
7. [ ] Others (specify) _____

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M. Please tick the **MACHINERY INVOLVED** in the accident. (Can tick more than one box)
The information to be collected is similar to **Section O of Labour Department Form 2**.

1. [ ] Skip / Material hoist / builders' lift
2. [ ] Mobile platform
3. [ ] Tower crane
4. [ ] Mobile crane
5. [ ] Lorry-mounted crane
6. [ ] Hydraulic crane
7. [ ] Suspended working platform
8. [ ] Boatswain's chair
9. [ ] Pile driver
10. [ ] Boring rig
11. [ ] Bar bender
12. [ ] Concrete mixer
13. [ ] Air compressor / receiver
14. [ ] Others (specify) _____

N. Please tick the **CONSTRUCTION MACHINERY INVOLVED** in the accident if appropriate. (Tick one box only) The information to be collected is similar to **Section P of Labour Department Form 2**.

1. [ ] Dump truck
2. [ ] Loader
3. [ ] Excavator
4. [ ] Bulldozer
5. [ ] Grader
6. [ ] Compacting roller
7. [ ] Others (specify) _____

O. Brief account of the accident (Sections O & P need not be completed if a separate report has been / will be submitted.)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

P. What action(s) / measure(s) should be taken / have been taken to avoid recurrence of similar accidents?

_____
_____
_____
_____
_____
_____

Q. Injury Report Form completed by:

Name of Person _____ Post Title _____ Signature _____ Date _____

Acknowledged by:

Name of A/E's Representative _____ Signature _____ Date _____

The data structure of the WDD-4.0 Injury Report message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Injury Report	Injury Report	-	Document for an injury report.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of a construction site for which an injury is reported.
1.2	Injury Reference Number	Identifier	Mandatory / Once	Reference number of an injury.
1.3	Injured Worker	Injured Worker	Mandatory / Once	Worker of which an injury is reported.
1.3.1	Surname	Name	Mandatory / Once	Surname of an injured worker.
1.3.2	Given Name	Name	Mandatory / Once	Given name of an injured worker.
1.3.3	Age	Numeric	Mandatory / Once	Age of an injured worker.
1.3.4	Gender	Code	Mandatory / Once Len. = 1, Enumeration = M,F,U	A code to indicate the gender of a person (M=male, F=female, U=unknown).
1.3.5	Imported Labourer Indicator	Boolean	Mandatory / Once	Flag indicating whether an injured worker is an imported labourer.

Level No.	Data Component	Type	Constraints	Definition
1.3.6	Construction Site Experience	Measure	Mandatory / Once	Construction site experience of an injured worker.
1.3.7	Current Site Duration	Measure	Mandatory / Once	Time duration of an injured worker working in the current construction site.
1.4	Employer	Name	Mandatory / Once	Name of employer of an injured worker.
1.5	Accident Date	Date	Mandatory / Once	Date on which an accident occurred.
1.6	Anticipated Injury Severity	Code	Mandatory / Once Enumeration = 1,2,3	Anticipated injury severity of an injured worker.
1.7	Sick Leave Start Date	Date	Optional / Once	Start date of sick leave of an injured worker.
1.8	Sick Leave End Date	Date	Optional / Once	End date of sick leave of an injured worker.
1.9	Injured Worker Trade	Code	Mandatory / Once Enumeration = 1,2,3,4,5,11,12, 21,22,23,24,25, 26,27,28,29,30, 31,32,33,34,35, 36,37,38,39,40, 41,42,43,44,45, 46,47,48,49,50, 51,52,60	Trade of an injured worker.

Level No.	Data Component	Type	Constraints	Definition
1.10	Other Injured Worker Trade Specification	Text	Optional / Once	Specification of other trade of an injured worker.
1.11	Accident Location	Code	Mandatory / Once Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12	Location at which an accident occurred.
1.12	Other Accident Location Specification	Text	Optional / Once	Specification of other location at which an accident occurred.
1.13	Worker Injury	Worker Injury	Mandatory / Once	Injury of a worker.
1.13.1	Detail	Worker Injury Detail	Mandatory / Multiple	Detailed information of the injury of a worker.
1.13.1.1	Injury Nature	Code	Mandatory / Once Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	Nature of injury of a worker.

Level No.	Data Component	Type	Constraints	Definition
1.13.1.2	Body Part Injured	Code	Mandatory / Once Enumeration = 21,22,23,24,25, 26,31,32,33,34, 35,36,37,41,42, 43,44,45,46,47, 51,52,53,54,55, 56,60	Body part of a worker that was injured.
1.13.2	Other Injury Nature Specification	Text	Optional / Once	Specification of other injury nature of a worker.
1.13.3	Other Body Part Injured Specification	Text	Optional / Once	Specification of other body part of a worker that was injured.
1.14	Accident Type	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7,8, 9,10,11,12,13,1 4,15,16,17,18,1 9,20,21	Type of accident.
1.15	Other Accident Type Specification	Text	Optional / Once	Specification of other accident type.
1.16	Worker Falling Height	Measure	Optional / Once	Height from which a worker fell.

Level No.	Data Component	Type	Constraints	Definition
1.17	Agent Involved	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	Agent involved in an accident.
1.18	Other Agent Involved Specification	Text	Optional / Once	Specification of other agent involved in an accident.
1.19	Agent Involved Other Machinery	Text	Optional / Once	Other machinery, which is an agent, involved in an accident.
1.20	Work Type Performed	Code	Mandatory / Once Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29	Work type performed by an injured worker during an accident.
1.21	Other Work Type Performed Specification	Text	Optional / Once	Specification of other work type performed by an injured worker during an accident.

Level No.	Data Component	Type	Constraints	Definition
1.22	Unsafe Action	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21	Unsafe action taken during an accident.
1.23	Other Unsafe Action Specification	Text	Optional / Once	Specification of other unsafe action taken during an accident.
1.24	Unsafe Condition	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18	Unsafe condition under which an accident occurred.
1.25	Other Unsafe Condition Specification	Text	Optional / Once	Specification of other unsafe condition under which an accident occurred.
1.26	Personal Factor	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7	Personal factor involved in an accident.
1.27	Other Personal Factor Specification	Text	Optional / Once	Specification of other personal factor involved in an accident.

Level No.	Data Component	Type	Constraints	Definition
1.28	Machinery Involved	Code	Mandatory / Multiple Enumeration = 1,2,3,4,5,6,7,8, 9,10,11,12,13,1 4	Machinery involved in an accident.
1.29	Other Machinery Involved Specification	Text	Optional / Once	Specification of other machinery involved in an accident.
1.30	Construction Machinery Involved	Code	Mandatory / Once Enumeration = 1,2,3,4,5,6,7	Construction machinery involved in an accident.
1.31	Other Construction Machinery Involved Specification	Text	Optional / Once	Specification of other construction machinery involved in an accident.
1.32	Accident Brief Account	Text	Optional / Once	Brief account of an accident.
1.33	Avoid Accident Recurrence Action	Text	Optional / Once	Action should be taken or has been taken to avoid recurrence of similar accident.
1.34	Completing Person Signature	Signature	Optional / Once	Signature of a person who completes an injury report.
1.35	Completing Person Signature Date	Date	Mandatory / Once	Date on which a person who completes an injury report signs on the report.
1.36	Completing Person Title	Text	Mandatory / Once	Title of a person who completes an injury report.
1.37	Completing Person Name	Name	Mandatory / Once	Name of a person who completes an injury report.

Level No.	Data Component	Type	Constraints	Definition
1.38	Acknowledging Person Signature	Signature	Optional / Once	Signature of a person who acknowledges an injury report.
1.39	Acknowledging Person Signature Date	Date	Mandatory / Once	Date on which a person who acknowledges an injury report signs on the report.
1.40	Acknowledging Person Name	Name	Mandatory / Once	Name of a person who acknowledges an injury report.

The code lists used in this message are listed below:

Data component: Injury Report/Injured Worker/Gender

Code	Description
M	Male
F	Female
U	Unknown

Data component: Injury Report/Worker Injury/Injury Nature

Code	Description
1	Abrasion
2	Amputation
3	Asphyxia
4	Burn (heat)
5	Burn / Scald
6	Contusion and bruise
7	Concussion and other internal injury
8	Laceration and cut
9	Dislocation
10	Crushing
11	Electric shock / Effects of electric current
12	Fracture
13	Puncture
14	Sprain / Strain / Twist
15	Freezing
16	Poisoning and gassing
17	Irritation
18	Nausea
19	Multiple injuries

20	Others (specify)

Data component: Injury Report/Worker Injury/Body Part Injured

Code	Description
21	Head - Skull / Scalp
22	Head - Eye
23	Head - Ear
24	Head - Mouth / Tooth / Lip
25	Head - Nose
26	Head - Face / Cheek / Chin
31	Neck and Trunk - Neck
32	Neck and Trunk - Back
33	Neck and Trunk - Chest
34	Neck and Trunk - Abdomen
35	Neck and Trunk - Trunk
36	Neck and Trunk - Pelvis / Groin
37	Neck and Trunk - Waist
41	Upper Limbs - Finger
42	Upper Limbs - Hand / Palm
43	Upper Limbs - Forearm
44	Upper Limbs - Elbow
45	Upper Limbs - Upper arm
46	Upper Limbs - Shoulder
47	Upper Limbs - Wrist
51	Lower Limbs - Hip
52	Lower Limbs - Thigh
53	Lower Limbs - Knee
54	Lower Limbs - Leg
55	Lower Limbs - Ankle

56	Lower Limbs - Foot / Toe
60	Others (specify)

Data component: Injury Report/Anticipated Injury Severity

Code	Description
1	Minor (with no hospitalization or hospitalization less than 24 hours)
2	Serious (with hospitalization more than 24 hours)
3	Death

Data component: Injury Report/Injured Worker Trade

Code	Description
1	Semi-skilled worker / General worker - Chainman
2	Semi-skilled worker / General worker - Concreting labourer
3	Semi-skilled worker / General worker - Drilling assistant
4	Semi-skilled worker / General worker - Excavator
5	Semi-skilled worker / General worker - Labourer
11	Management / Foreman - Manager / Site Engineer / General Foreman
12	Management / Foreman - Ganger
21	Tradesman - Bamboo scaffolder
22	Tradesman - Bar bender and fixer
23	Tradesman - Bricklayer
24	Tradesman - Building services / Electrical and Mechanical worker
25	Tradesman - Carpenter (fender)
26	Tradesman - Carpenter (formworker)
27	Tradesman - Concretor
28	Tradesman - Construction / Mechanical plant mechanic or fitter
29	Tradesman - Diver
30	Tradesman - Drainlayer / Mainlayer
31	Tradesman - Demolition worker

32	Tradesman - General welder
33	Tradesman - Joiner
34	Tradesman - Leveller
35	Tradesman - Marine construction plant operator
36	Tradesman - Mason
37	Tradesman - Metal worker
38	Tradesman - Metal scaffolder
39	Tradesman - Painter and decorator
40	Tradesman - Piling operative
41	Tradesman - Plant and equipment operator (builders lift & other machinery)
42	Tradesman - Plant and equipment operator (earthmoving machinery)
43	Tradesman - Plant and equipment operator (hoist and crane)
44	Tradesman - Plant and equipment operator (piling)
45	Tradesman - Plant and equipment operator (tunnelling)
46	Tradesman - Plasterer
47	Tradesman - Plumber
48	Tradesman - Pneumatic driller
49	Tradesman - Rigger / Metal formwork erector
50	Tradesman - Structural steel erector
51	Tradesman - Truck and other vehicle driver
52	Tradesman - Tunnel worker
60	Others (specify, e.g. security staff / watchman)

Data component: Injury Report/Accident Location

Code	Description
1	Roof/Top of building
2	Lift shaft/Internal work surface
3	Stair/Passage
4	Excavation/Underground/Basement
5	Tunnel/Sewer/Drain/Nullah
6	Ladder
7	External work/Scaffolding/Gondola
8	Steel bending yard
9	Pre-casting/Prestressing yard
10	Floor/Floor opening
11	Falsework and formwork
12	Others

Data component: Injury Report/Accident Type

Code	Description
1	Trapped in or between objects
2	Injured whilst lifting or carrying / Manual lifting / Manual handling / Handling without machinery
3	Slip, trip or fall on same level
4	Fall of person from height (specify) metres
5	Striking against fixed or stationary object
6	Striking against moving object
7	Stepping on object / nail
8	Exposure to or contact with harmful substance (e.g. poison gas, toxic, corrosive substance)
9	Contact with electricity or electric discharge
10	Trapped by collapsing or overturning object

11	Struck by moving or falling object
12	Struck by moving vehicle / Traffic accident
13	Contact with moving machinery or object being machined
14	Drowning or asphyxiation
15	Exposure to fire / burning
16	Exposure to explosion
17	Dust / Foreign particle in eye
18	Hand tool accident
19	Crushing / Burial
20	Machinery operation accident
21	Others (specify)

Data component: Injury Report/Agent Involved

Code	**Description**
1	Equipment for lifting / conveying
2	Portable power or hand tools
3	Other machinery (specify)
4	Material / Product being handled or stored
5	Ladder or working at height
6	Sewage, manhole or other confined space
7	Movable container or package of any kind
8	Floor, ground, stairs or any working surface
9	Gas, vapour, dust or fume
10	Electricity supply, wiring apparatus or equipment
11	Vehicle or associated equipment or machinery
12	Construction formwork, shuttering and falsework
13	Nail, splinter or chipping
14	Scaffolding / Gondola
15	Excavation / Underground work

16	Slope
17	Steel bar / rod
18	Pipe
19	Others (specify)

Data component: Injury Report/Work Type Performed

Code	Description
1	Concreting
2	Woodworking
3	Glazier work
4	Reinforcement bar bending
5	Bamboo scaffolding
6	Metal scaffolding
7	Painting
8	Plastering
9	Arc / Gas welding
10	Formwork erection
11	Brick laying
12	Caisson work
13	Trench work
14	Gas pipe fitting
15	Water pipe fitting
16	Electrical wiring
17	Material handling
18	Lift installation
19	Slope work
20	Mixing
21	Demolition
22	Road work

23	Erection of structural elements
24	Falsework
25	Surface treatment
26	Cutting
27	Piling
28	Finishing work
29	Others (specify)

Data component: Injury Report/Unsafe Action

Code	**Description**
1	Operating without authority
2	Failure to secure objects
3	Making safety devices inoperative
4	Working on moving or dangerous equipment
5	Use unsafe equipment / Use equipment unsafely
6	Adopting unsafe position or posture
7	Operating or working at unsafe speed
8	Unsafe loading, placing, mixing, etc.
9	Failure to use helmet
10	Failure to use proper footwear
11	Failure to use eye protector
12	Failure to use respirator
13	Failure to use proper clothing
14	Failure to warn others or give proper signals
15	Horseplay
16	Smoking / Burning
17	Failure to use safety belt / harness
18	Failure to use gloves
19	Use unsuitable access / Failure to use access

20	Lapse of attention
21	Others (specify)

Data component: Injury Report/Unsafe Condition

Code	Description
1	No protective gear
2	Defective protective gear
3	Improper dress / footwear
4	Improper guarding / No guarding
5	Improper ventilation
6	Improper illumination
7	Improper procedure
8	Unsafe layout of job, traffic, etc.
9	Unsafe process or job methods
10	Poor housekeeping
11	Lack of warning system
12	Defective tool, machinery or material
13	Improper stacking / storage
14	Adverse weather
15	Inadequate working space/ platform
16	Slippery area
17	Inadequate tools and protective equipment
18	Others (specify)

Data component: Injury Report/Personal Factor

Code	Description
1	Incorrect attitude / motive
2	Lack of knowledge or skill
3	Physical defects

4	Unsafe act by another person
5	Fatigue / Exhaustion
6	Carelessness
7	Others (specify)

Data component: Injury Report/Machinery Involved

Code	Description
1	Skip / Material hoist / Builders' lift
2	Mobile platform
3	Tower crane
4	Mobile crane
5	Lorry-mounted crane
6	Hydraulic crane
7	Suspended working platform
8	Boatswain's chair
9	Pile driver
10	Boring rig
11	Bar bender
12	Concrete mixer
13	Air compressor / receiver
14	Others (specify)

Data component: Injury Report/Construction Machinery Involved

Code	Description
1	Dump truck
2	Loader
3	Excavator
4	Bulldozer
5	Grader

6	Compacting roller
7	Others (specify)

8.1.4.2 WDD-4.1 Construction Accident Statistics Monthly Summary Message

The following is the Construction Accident Statistics Monthly Summary form in the CSSM Chapter 9:

C9-AV-P01 (Ver. July 2001)

Construction Accident Statistics Monthly Summary

[for the month ending _____ / _____(mm/yy)]

(To be submitted on or before the 15th day of each month)

A. If this is the last summary of the contract for entry of data into the PCAS system, please tick the box ☐

B. Please tick your DEPARTMENT

1. [ ] ArchSD 3. [ ] DSD 5. [ ] HyD 7. [ ] WSD
2. [ ] CED 4. [ ] EMSD 6. [ ] TDD

Office _____ Division _____

	This Month	Cumulative Total
C. Contract No. : _____		
D. Number of fatal accidents		
E. Number of dangerous occurrences		
F. Number of reportable accidents (with incapacity for more than 3 days)		
G. No. of man-day lost (i) due to accident(s) occurred in this month		
(ii) due to accident(s) of previous months		
H. No. of Form 2B submitted to LD (with incapacity of 3 days or less)		
I. Number of LD inspection conducted		
J. Number of Improvement Notice(s) issued by LD		
K. Number of Suspension Notice(s) issued by LD		
L. Sum certified (in HK$)		

M. Number of man-days and man-hours worked by Trades (based on the return of GF 527 to the Census and Statistics Department)

			Man-days	Man--hours
General worker	4. Excavator	4		
	5. Labourer	5		
Management	11. Manager / General Foreman / Ganger	11	N/A	
Tradesman	21. Bamboo scaffolder	21		
	22. Bar bender and fixer	22		
	23. Bricklayer	23		
	24. Building services / E&M worker	24		
	25. Carpenter	25		
	27. Concretor	27		
	28. Plant mechanic / Fitter	28		
	30. Drainlayer / Mainlayer	30		
	32. General welder	32		
	37. Metal worker	37		
	42. Plant & equipment operator	42		
	46. Plasterer	46		
	47. Plumber	47		
	48. Pneumatic driller	48		
	49. Rigger / Metal formwork erector	49		
	52. Tunnel worker	52		
	60. Others not included in the above	60		
	Total of this month:			
	Cumulative total since contract commencement :			

Note: Please submit the Employees Compensation Summary at C9-AV-P03 on quarterly basis whenever there was fatal and/or non-fatal accident happened for the contract until settlement of compensation of all injury cases under the same contract.

The data structure of the WDD-4.1 Construction Accident Statistics Monthly Summary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Construction Accident Statistics Monthly Summary	Construction Accident Statistics Monthly Summary	-	Document for a construction accident statistics monthly summary.
1.1	Reporting Month	Numeric	Mandatory / Once Min. Incl. = 1, Max. Incl. = 12	Month of a construction accident statistics monthly summary.
1.2	Reporting Year	Numeric	Mandatory / Once Tot. Digits = 4	Year of a construction accident statistics monthly summary.
1.3	PCAS Last Summary Indicator	Boolean	Mandatory / Once	Flag indicating whether a construction accident statistics monthly summary is the last summary for entry of data into the PCAS system.
1.4	Client Organization	Code	Mandatory / Once Enumeration = 1,2,3,4,5,7	Client organization of a construction site.
1.5	Client Office	Text	Mandatory / Once	Office of client of a construction site.

Level No.	Data Component	Type	Constraints	Definition
1.6	Client Division	Text	Mandatory / Once	Division of client of a construction site.
1.7	Contract Number	Identifier	Mandatory / Once	Identifier of contract of a construction site for which an accident statistics monthly summary is prepared.
1.8	Fatal Accident Count	Count	Mandatory / Once	Number of fatal accidents occurred this month.
1.9	Dangerous Occurrence Count	Count	Mandatory / Once	Number of dangerous occurrences occurred this month.
1.10	Current Month Reportable Accident Count	Count	Mandatory / Once	Number of reportable accidents, with incapacity for more than three days, occurred this month.
1.11	Cumulative Total Reportable Accident Count	Count	Mandatory / Once	Cumulative total number of reportable accidents, with incapacity for more than three days, occurred.
1.12	Current Month Accident Lost Man Day	Quantity	Mandatory / Once	Number of man-days lost this month due to accident(s) occurred in this month.
1.13	Previous Accident Current Month Lost Man Day	Quantity	Mandatory / Once	Number of man-days lost this month due to accident(s) occurred in previous months.
1.14	Previous Accident Cumulative Total Lost Man Day	Quantity	Mandatory / Once	Cumulative total number of man-days lost due to accident(s) occurred in previous months.
1.15	Submitted Form 2B Count	Count	Mandatory / Once	Number of Form 2B submitted to Labour Department this month with incapacity of three days or less.
1.16	LD Inspection Count	Count	Mandatory / Once	Number of inspection conducted by Labour Department this month.

Level No.	Data Component	Type	Constraints	Definition
1.17	Current Month Improvement Notice Count	Count	Mandatory / Once	Number of Improvement Notices issued by Labour Department this month.
1.18	Cumulative Total Improvement Notice Count	Count	Mandatory / Once	Cumulative total number of Improvement Notices issued by Labour Department.
1.19	Current Month Suspension Notice Count	Count	Mandatory / Once	Number of Suspension Notices issued by Labour Department this month.
1.20	Cumulative Total Suspension Notice Count	Count	Mandatory / Once	Cumulative total number of Suspension Notices issued by Labour Department.
1.21	Current Month Certified Sum	Amount	Mandatory / Once	Sum certified in this month.
1.22	Cumulative Total Certified Sum	Amount	Mandatory / Once	Total cumulative sum certified.
1.23	Excavator Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade excavator.
1.23.1	Man Day	Quantity	Optional / Once	Quantity of man-days involved.
1.23.2	Man Hour	Quantity	Optional / Once	Quantity of man-hours involved.
1.24	Labourer Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade labourer.
1.25	Management Man Hour	Quantity	Optional / Once	Number of man-hours worked by workers of trade manager/general foreman/ganger.
1.26	Bamboo Scaffolder Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade bamboo scaffolder.

Level No.	Data Component	Type	Constraints	Definition
1.27	Bar Bender Fixer Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade bar bender and fixer.
1.28	Bricklayer Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade bricklayer.
1.29	Building Service Electrical Mechanical Worker Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade building services/electrical and mechanical worker.
1.30	Carpenter Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade carpenter.
1.31	Concretor Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade concretor.
1.32	Plant Mechanic Fitter Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade plant mechanic/fitter.
1.33	Drainlayer Mainlayer Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade drainlayer/mainlayer.
1.34	General Welder Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade general welder.
1.35	Metal Worker Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade metal worker.
1.36	Plant Equipment Operator Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade plant and equipment operator.
1.37	Plasterer Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade plasterer.
1.38	Plumber Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade plumber.
1.39	Pneumatic Driller Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade pneumatic driller.

Level No.	Data Component	Type	Constraints	Definition
1.40	Rigger Metal Formwork Errector Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade rigger/metal formwork errector.
1.41	Tunnel Worker Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of trade tunnel worker.
1.42	Other Effort	Effort	Optional / Once	Number of man-days and man-hours worked by workers of other trades.
1.43	Current Month Total Effort	Effort	Mandatory / Once	Total number of man-days and man-hours worked by workers this month.
1.44	Cumulative Total Effort	Effort	Mandatory / Once	Cumulative total number of man-days and man-hours worked by workers.

The code lists used in this message are listed below:

Data component: Construction Accident Statistics Monthly Summary/Client Organization

Code	Description
1	ArchSD
2	CEDD
3	DSD
4	EMSD
5	HyD
7	WSD

8.1.4.3 WDD-4.2 Employee Compensation Summary Message

The following is the Employee Compensation Summary form in the CSSM Chapter 9:

C9-AV-P03 (Ver. July 2001)

Employees Compensation Summary as at the month of _____ (mm/yy)

(To be submitted on quarterly basis until settlement of compensation of all injury cases under the same contract)

Contract No. _____ **Completed by: Name of Person** _____

Contract Title : _____ **Contact Tel. No.** _____

Ref. No.	Name of Injured Person	Date of Injury	End Date of Sick Leave	No. of Man-day Lost	Percentage of Permanent Incapacity (PI) Finalized by LD *(Please tick)*			Compensation Paid (HK $)		
					0%	<=5%	>5%	Sick Leave	Compensation (PI)	Total

The data structure of the WDD-4.2 Employee Compensation Summary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.2-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.2-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Employee Compensation Summary	Employee Compensation Summary	-	Document for summary of employee compensation.
1.1	Reporting Month	Numeric	Mandatory / Once Min. Incl. = 1, Max. Incl. = 12	Month of summary.
1.2	Reporting Year	Numeric	Mandatory / Once Tot. Digits = 4	Year of summary.
1.3	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site at which an employee is injured.
1.4	Contract Title	Text	Mandatory / Once	Title of contract of construction site at which an employee is injured.
1.5	Completing Person Name	Name	Mandatory / Once	Name of person who completes an employee compensation summary.
1.6	Completing Person Telephone Number	Text	Mandatory / Once	Telephone number of person who completes an employee compensation summary.
1.7	Employee Compensation	Employee Compensation	Mandatory / Multiple	Employee compensation summarized.

Level No.	Data Component	Type	Constraints	Definition
1.7.1	Reference Number	Identifier	Mandatory / Once	Reference number of employee compensation.
1.7.2	Injured Employee Name	Name	Mandatory / Once	Name of employee injured.
1.7.3	Injury Date	Date	Mandatory / Once	Date on which an employee was injured.
1.7.4	Sick Leave End Date	Date	Mandatory / Once	End date of sick leave of an injured employee.
1.7.5	Man Day Lost	Quantity	Mandatory / Once	Number of man-days lost due to the injury.
1.7.6	Permanent Incapacity Percentage	Code	Mandatory / Once Enumeration = 1,2,3	Code representing the percentage of permanent incapacity of an injured employee finalized by Labour Department.
1.7.7	Paid Sick Leave Compensation	Amount	Mandatory / Once	Sick leave compensation paid for an injured employee.
1.7.8	Paid Permanent Incapacity Compensation	Amount	Mandatory / Once	Permanent incapacity compensation paid for an injured employee.
1.7.9	Total Paid Compensation	Amount	Mandatory / Once	Total compensation paid for an injured employee.

The code lists used in this message are listed below:

Data component: Employee Compensation Summary/Employee Compensation/Permanent Incapacity Percentage

Code	Description
1	0%
2	<= 5%

3	> 5%

8.1.4.4 WDD-4.3 Preliminary Accident Report Message

The following is the Preliminary Accident Report form in the CSSM Chapter 9:

C9-AVIII(Ver.Sep.99)

Appendix VIII

To : _____

Urgent by Fax

_____ **Department**

Preliminary Report on Accident

1 Contract No :

2 Contract Title :

3 Name of Contractor :

4 Location of Accident :

5 Date and Time of Accident :

6 Nature and Brief Account of Accident (with a sketch) :

7 Number of Person(s) Injured/killed :

8 Name(s) and Age(s) of Person(s) injured/killed :

9 Seriousness of Injury, or extent of damages :

10 Probable cause of the accident (if established) :

11 Measures introduced (or to be introduced) to prevent recurrence of similar accidents on site if established :

12 Effect of accident on progress of works :

13 Contractor's report attached (Yes/No)

14 Any other information :

Reported By :

_____	_____	_____	_____	_____
Name	Post	Tel. No.	Signature	Date

1

The data structure of the WDD-4.3 Preliminary Accident Report message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.3-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.3-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Preliminary Accident Report	Preliminary Accident Report	-	Document for a preliminary accident report.
1.1	Recipient	Name	Mandatory / Once	Name of recipient of a preliminary accident report.
1.2	Client	Name	Mandatory / Once	Name of client of construction site at which an accident occurred.
1.3	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site at which an accident occurred.
1.4	Contract Title	Text	Mandatory / Once	Title of contract of construction site at which an accident occurred.
1.5	Contractor	Name	Mandatory / Once	Name of contractor of construction site at which an accident occurred.
1.6	Accident Location	Text	Mandatory / Once	Location at which an accident occurred.
1.7	Accident Date Time	Date Time	Mandatory / Once	Date and time during which an accident occurred.
1.8	Accident Nature Brief Account	Text	Mandatory / Once	Nature and brief account of an accident.
1.9	Sketch	Sketch	Mandatory / Once	Sketch on an accident.
1.9.1	Attachment File Name	Name	Mandatory / Once	File name of a sketch attached.

Level No.	Data Component	Type	Constraints	Definition
1.10	Injured Deceased Worker Count	Count	Mandatory / Once	Number of worker injured/killed.
1.11	Injured Deceased Worker	Preliminary Accident Report Injured Deceased Worker	Mandatory / Multiple	Information on worker injured/killed.
1.11.1	Name	Name	Mandatory / Once	Name of an injured/deceased worker.
1.11.2	Age	Numeric	Mandatory / Once	Age of an injured/deceased worker.
1.12	Injury Seriousness Damage Extent	Text	Mandatory / Once	Seriousness of injury or extent of damage.
1.13	Accident Probable Cause	Text	Optional / Once	Probable cause of an accident.
1.14	Avoid Accident Recurrence Measure	Text	Optional / Once	Measure introduced/to be introduced to prevent recurrence of similar accident on site.
1.15	Affected Works Progress	Text	Mandatory / Once	Effect of accident on progress of works.
1.16	Contractor Report Attached Indicator	Boolean	Mandatory / Once	Flag indicating whether an contractor's report is attached.
1.17	Contractor Report	Contractor Report	Optional / Once	Contractor's report on an accident.
1.17.1	Attachment File Name	Name	Mandatory / Once	File name of a contractor's report attached.
1.18	Remark	Text	Optional / Once	Remark related to an accident.
1.19	Reporting Person Signature	Signature	Optional / Once	Signature of person reporting an accident.

Level No.	Data Component	Type	Constraints	Definition
1.20	Reporting Person Signature Date	Date	Mandatory / Once	Date on which a person reporting an accident signs the preliminary accident report.
1.21	Reporting Person Title	Text	Mandatory / Once	Title of person reporting an accident.
1.22	Reporting Person Name	Name	Mandatory / Once	Name of person reporting an accident.
1.23	Reporting Person Telephone Number	Text	Mandatory / Once	Telephone number of person reporting an accident.

8.1.4.5 WDD-4.4 Fatal Accident Supplementary Information Message

The following is the Supplementary Information for Fatal Accident form in the CSSM Chapter 9:

C9-AIX (Ver. Feb 2003)

Appendix IX – Supplementary Information for Fatal Accident

URGENT BY FAX

TO: CAS(W)5, ETWB	FROM: (name)
FAX: 2882 7152	POST and DEPARTMENT:
DATE:	TEL. NO.:

Information of the Contract

Contract No.: _____

Contract Title : _____ (in English)

_____ (in Chinese)

Information of the Accident and the Deceased :

Date of Accident : _____

Name of Deceased : _____ (in English) _____ (in Chinese)

Age : _____

Information of the next of kin :

Name : _____ (in Chinese if the Deceased was of Chinese ethnic group)

Relationship with the Deceased : _____

Address : _____

_____
(in Chinese if the Deceased was of Chinese ethnic group)

Contact Tel. No. : _____

Number of Children :

Age below 18 _____ Age 18 or above _____

Signature: _____

c.c. Departmental Safety Adviser, _____ Department

The data structure of the WDD-4.4 Fatal Accident Supplementary Information message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.4-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.4-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Fatal Accident Supplementary Information	Fatal Accident Supplementary Information	-	Document for supplementary information for a fatal accident.
1.1	Sender Name	Name	Mandatory / Once	Name of sender of supplementary information for a fatal accident.
1.2	Sender Title	Text	Mandatory / Once	Title of sender of supplementary information for a fatal accident.
1.3	Sender Organization	Text	Mandatory / Once	Organization with which sender of supplementary information for a fatal accident affiliates.
1.4	Sender Telephone Number	Text	Mandatory / Once	Telephone number of sender of supplementary information for a fatal accident.
1.5	Report Date	Date	Mandatory / Once	Date on which the supplementary information for a fatal accident is reported.
1.6	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site at which a fatal accident occurred.
1.7	Contract English Title	Text	Mandatory / Once	English title of contract of construction site at which a fatal accident occurred.
1.8	Contract Chinese Title	Text	Mandatory / Once	Chinese title of contract of construction site at which a fatal accident occurred.

Level No.	Data Component	Type	Constraints	Definition
1.9	Accident Date	Date	Mandatory / Once	Date on which a fatal accident occurred.
1.10	Deceased Worker	Deceased Worker	Mandatory / Once	Information on worker killed in a fatal accident.
1.10.1	English Name	Name	Optional / Once	English name of a deceased worker.
1.10.2	Chinese Name	Name	Optional / Once	Chinese name of a deceased worker.
1.10.3	Age	Numeric	Mandatory / Once	Age of a deceased worker.
1.10.4	Next Kin	Next Kin	Optional / Once	Next of kin of a deceased worker.
1.10.4.1	Name	Name	Mandatory / Once	Name of next of kin.
1.10.4.2	Relationship	Text	Mandatory / Once	Relationship of next of kin with the person.
1.10.4.3	Address	Text	Mandatory / Once	Address of next of kin.
1.10.4.4	Telephone Number	Text	Optional / Once	Telephone number of next of kin.
1.10.5	Minor Child Count	Count	Optional / Once	Number of children of age below eighteen of a deceased worker.
1.10.6	Adult Child Count	Count	Optional / Once	Number of children of age eighteen or above of a deceased worker.
1.11	Digital Signature	Signature	Optional / Once	Signature signed on the supplementary information for a fatal accident.

Level No.	Data Component	Type	Constraints	Definition
1.12	CC Organization	Name	Mandatory / Once	Name of organization to which a carbon copy of the supplementary information for a fatal accident is sent.

8.1.4.6 WDD-4.5 Dangerous Occurrence Report Message

The following is the Dangerous Occurrence Report Form in the CSSM Chapter 9:

C9-AII (Ver. Feb 2003)

DANGEROUS OCCURRENCE REPORT FORM
呈報危險事故表格

To : The Commissioner for Labour, Hong Kong
致 : 香港勞工處處長

In accordance with Regulation 18 of the Factories and Industrial Undertakings Regulations, details of a dangerous occurrence are submitted below :-
現根據工廠及工業經營規例第十八條，謹向 貴處呈報以下之危險事故 :-

Name and address of Industrial Undertaking 工業經營的名稱及地址	
Date and Time of the Dangerous Occurrence 危險事故發生的日期及時間	
Nature of the Dangerous Occurrence 危險事故的性質	
Circumstances 事故發生的現場情況	
Structural/Plant Damage 樓宇、機器或設備受損壞的程度	
Casualties * 有沒有人受傷	
Extent of Work Suspended 工作停止程度	

* In case of injury, the accident reporting form (Form II) must be followed within seven days.
如有工人受傷，必須於危險事故發生後七天內以表格第二款向勞工處呈報。

Signature
簽署 _____
Position
職位 _____
Date
日期 _____

_____
(CHOP OF COMPANY)
(公司蓋印)

Note : This form must be sent to the Commissioner for Labour within 24 hours of a Dangerous Occurrence.
註 : 此表格必須於危險事故發生後二十四小時內向勞工處職業安全主任呈報。

OS-F-DO

The data structure of the WDD-4.5 Dangerous Occurrence Report message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.5-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.5-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Dangerous Occurrence Report	Dangerous Occurrence Report	-	Document for a dangerous occurrence report.
1.1	Industrial Undertaking Name Address	Text	Mandatory / Once	Name and address of industrial undertaking at which a dangerous occurrence occurred.
1.2	Dangerous Occurrence Date Time	Date Time	Mandatory / Once	Date and time during which a dangerous occurrence occurred.
1.3	Dangerous Occurrence Nature	Text	Mandatory / Once	Nature of a dangerous occurrence.
1.4	Circumstance	Text	Mandatory / Once	Circumstance under which a dangerous occurrence occurred.
1.5	Structural Plant Damage	Text	Mandatory / Once	Structural/plant damage caused by a dangerous occurrence.
1.6	Casualty Indicator	Boolean	Mandatory / Once	Flag indicating whether casualty is caused by a dangerous occurrence.
1.7	Suspended Work Extent	Text	Mandatory / Once	Extent of work suspended due to a dangerous occurrence.
1.8	Reporting Person Signature	Signature	Optional / Once	Signature of person reporting a dangerous occurrence.
1.9	Reporting Person Signature Date	Date	Mandatory / Once	Date on which the person reporting a dangerous occurrence signs on the report.
1.10	Reporting Person Title	Text	Mandatory / Once	Title of person reporting a dangerous occurrence.

Level No.	Data Component	Type	Constraints	Definition
1.11	Company Signature	Signature	Optional / Once	Signature of organization with which reporter of a dangerous occurrence affiliates.

8.1.4.7 WDD-4.6 Shipping Casualty Report Message

The following is the Report of a Shipping Casualty form in the CSSM Chapter 9:

C9_AIII (Ver. Sep.99)

REPORT OF A SHIPPING CASUALTY

PURSUANT TO SECTION 67 OF THE SHIPPING AND PORT CONTROL ORDINANCE (CAP. 313)	
1. Type of accident; (enter "Collision", "Grounding", "Foundering", "Fire", etc.)	
2. Name of vessel	
3. Type of vessel (enter "Passenger", "Cargo", "Container", "Bulk", "Tanker", etc.)	
4. (i) Port of registry/ Licence No.	(ii) Nationality :
(iii) G.T.	(iv) Condition :
5. (i) Name of master :	(ii) Nationality :
(iii) Certificate No.	(iv) Issuing authority :
6. Name of H.K. licenced pilot : (if applicable)	
7. Date and time of accident :	
8. Position where accident occurred :	
9. Name/s of any other vessel/s involved :	
10. (i) Direction and force of tide :	(ii) Direction and force of wind :
11. (i) State of weather :	(ii) Visibility :
12. Lights exhibited by own ship: (if applicable)	
13. Lights exhibited by other vessel: (if applicable)	
14. Details of sound signals given by own ship : (if applicable)	
15. Details of sound signals given by other vessels :	
16. Course and speed of own ship on first sighting other vessel, pier, shore or buoy with which collision occurred :	

C9

17. Distance and bearing of other vessel, pier, shore or buoy when first sighted :

18. Description of damage of own ship or to other property :

19. Account of accident, with remarks as to cause and avoiding action taken :

20. Signature, full name, designation and address of person providing the above information :

....
Signature Full Name Designation

Address : .....

.....

.....

.....

Date :

To : Director of Marine
Harbour Building,
38 Pier Road,
G.P.O. Box 4155,
Hong Kong.
Fax No. 545 0556

The data structure of the WDD-4.6 Shipping Casualty Report message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.6-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.6-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.6-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Shipping Casualty Report	Shipping Casualty Report	-	Document for a shipping casualty report.
1.1	Accident Type	Code	Mandatory / Once Enumeration = C,G,F,I,O	Accident type of a shipping casualty.
1.2	Other Accident Type Specification	Text	Optional / Once	Specification of other accident type of a shipping casualty.
1.3	Own Vessel	Vessel	Mandatory / Once	Information on own vessel.
1.3.1	Name	Name	Mandatory / Once	Name of a vessel.
1.3.2	Type	Code	Mandatory / Once Enumeration = P,C,N,B,T,O	Type of a vessel.
1.3.3	Other Type Specification	Text	Optional / Once	Specification of other type of vessel.
1.3.4	Registry Port	Name	Mandatory / Once	Port at which a vessel is registered.

Level No.	Data Component	Type	Constraints	Definition
1.3.5	Licence Number	Identifier	Mandatory / Once	Licence number of a vessel.
1.3.6	Nationality	Text	Mandatory / Once	Nationality of a vessel.
1.3.7	Gross Ton	Measure	Mandatory / Once	Gross ton of a vessel.
1.3.8	Condition	Text	Mandatory / Once	Condition of a vessel.
1.4	Own Vessel Master	Vessel Master	Mandatory / Once	Information on master of own vessel.
1.4.1	Name	Name	Mandatory / Once	Name of master of a vessel.
1.4.2	Nationality	Text	Mandatory / Once	Nationality of master of a vessel.
1.4.3	Certificate Number	Identifier	Mandatory / Once	Certificate number of the master of a vessel.
1.4.4	Certificate Issuing Authority	Name	Mandatory / Once	Name of authority issuing a certificate for the master of a vessel.
1.5	Hong Kong Licenced Pilot	Name	Optional / Once	Name of the Hong Kong licenced pilot of own vessel.
1.6	Accident Date Time	Date Time	Mandatory / Once	Date and time during which an accident occurred.
1.7	Accident Position	Text	Mandatory / Once	Position where an accident occurred.
1.8	Other Involved Vessel Name	Name	Optional / Multiple	Name of other vessel involved in an accident.
1.9	Tide Direction	Text	Optional / Once	Direction of tide during an accident.

Level No.	Data Component	Type	Constraints	Definition
1.10	Tide Force	Numeric	Optional / Once	Force of tide during an accident.
1.11	Wind Direction	Text	Optional / Once	Direction of wind during an accident.
1.12	Wind Force	Measure	Optional / Once	Force of wind during an accident.
1.13	Weather State	Text	Optional / Once	State of weather during an accident.
1.14	Visibility	Text	Optional / Once	Visibility during an accident.
1.15	Own Vessel Exhibited Light	Text	Optional / Once	Light exhibited by own vessel.
1.16	Other Vessel Exhibited Light	Text	Optional / Once	Light exhibited by other vessel.
1.17	Own Vessel Sound Signal	Text	Optional / Once	Sound signal given by own vessel.
1.18	Other Vessel Sound Signal	Text	Optional / Once	Sound signal given by other vessel.
1.19	Own Vessel Course Speed First Sighting Collided Object	Text	Optional / Once	Course and speed of own vessel on first sighting other vessel, pier, shore or buoy, with which collision occurred.
1.20	Collided Object First Sighted Distance Bearing	Text	Optional / Once	Distance and bearing of other vessel, pier, shore or buoy, with which collision occurred, when first sighted.
1.21	Damage	Text	Optional / Once	Damage of own vessel or to other property.
1.22	Accident Account	Text	Optional / Once	Account of accident, including the cause and avoiding action taken.

Level No.	Data Component	Type	Constraints	Definition
1.23	Reporting Person Signature	Signature	Optional / Once	Signature of person reporting a shipping casualty.
1.24	Reporting Person Signature Date	Date	Mandatory / Once	Date on which the person reporting a shipping casualty signs the report.
1.25	Reporting Person Title	Text	Mandatory / Once	Title of person reporting a shipping casualty.
1.26	Reporting Person Name	Name	Mandatory / Once	Name of person reporting a shipping casualty.
1.27	Reporting Person Address	Text	Mandatory / Once	Address of person reporting a shipping casualty.

The code lists used in this message are listed below:

Data component: Shipping Casualty Report/Own Vessel/Type

Code	Description
P	Passenger
C	Cargo
N	Container
B	Bulk
T	Tanker
O	Others (specify)

Data component: Shipping Casualty Report/Accident Type

Code	Description
C	Collision
G	Grounding
F	Foundering

I	Fire
O	Others (specify)

8.1.4.8 WDD-4.7 Death Incapacity Notice

The following is the Notice by Employer of the Death of an Employee or of an Accident to an Employee Resulting in Death or Incapacity in the CSSM Chapter 9:

C9-A1 (Ver. Feb 2003)

[reg.4]

FORM 2

EMPLOYEES' COMPENSATION ORDINANCE
(CAP. 282)

SECTION 15

NOTICE BY EMPLOYER OF THE DEATH OF AN EMPLOYEE OR OF AN ACCIDENT TO AN EMPLOYEE RESULTING IN DEATH OR INCAPACITY

Important Notes

(1) To be completed and returned in DUPLICATE to the Commissioner for Labour -

(a) WITHIN 7 DAYS of the accident in the case of death; or

(b) WITHIN 14 DAYS of the accident in the case of injury; or

(c) WITHIN such period of time as required by the Commissioner for Labour.

(2) An employer who fails to give notice as required or who gives any false or misleading information to the Commissioner for Labour may be prosecuted.

(3) Part I must be completed for each employee. Part II is to be completed only if the accident occurred on a construction site.

(4) If more than one employee was injured or died as a result of an accident, please complete a separate form in duplicate for each employee.

(5) Please '✓' in the appropriate box.

(6) Please read the instructions carefully before completing this Form.

L.D. 27(a)(S)(Rev.96)

- 1 -

FORM 2

EMPLOYEES' COMPENSATION ORDINANCE
(CAP. 282)

SECTION 15

NOTICE BY EMPLOYER OF THE DEATH OF AN EMPLOYEE OR OF AN ACCIDENT TO AN EMPLOYEE RESULTING IN DEATH OR INCAPACITY

To the Commissioner for Labour

I declare that the information given in this form is, to the best of my knowledge, true and accurate.

Signature : _____ (for and on behalf of the employer)

Name (in block letters) : _____

Position : ☐ Sole proprietor ☐ Partner ☐ Manager ☐ Officer

Date : _____

_____
Chop of Company *(Note 1)*

A. Particulars of the employee **Part I**

Name of employee (Surname first)			Identity Card/Passport No.
Telephone No.	Fax No.	Address	
Date of Birth _____ /_____ /_____ Day/Month/Year	Sex ☐ Male ☐ Female	Occupation	An apprentice ☐ Yes ☐ No

B. Particulars of employer

Name of employing company/person		Business Registration Certificate No. *(Note 2)*
Telephone No.	Address	Trade
Fax No.		

C. Particulars of principal contractor/holding company ***(Note 3)***

Name of principal contractor/holding company		Business Registration Certificate No.
Telephone No.	Address	Trade
Fax No.		

D. Description of accident

Describe how the accident happened and state what the employee was doing at the time *(Note 4)*			
State whether the accident occurred in the course of work ☐ Yes ☐ No	Date of accident _____ /_____ /_____ Day/Month/Year	Time of accident _____ a.m./p.m.	Result of accident ☐ Death ☐ Injury
Address of the place of accident		Name of hospital/clinic where the employee received treatment	

E. Details of insurance ***(Note 5)***

Name and address of insurance company at the time of accident (Please refer to the insurance policy)	Policy No.

F. Details of earnings of the employee

Average number of working days per month	Rest day is
☐ 22 ☐ 24 ☐ 26 ☐ 30 ☐ Others _____ (please specify)	(a) ☐ not paid ☐ paid (b) ☐ not fixed ☐ fixed on _____ (Day of week)

Details of earnings per month for the month immediately preceding the date of accident: ***(Note 6)***

(a)	Basic salary/wages	$ _____ / month
(b)	Food allowances/value of free food provided by employer	$ _____ / month
(c)	Other items : _____ (please specify)	$ _____ / month
	Total (a) + (b) + (c)	$ _____ / month

Average monthly earnings of the employee for the past 12 months (or total period of employment, if less than 12 months) preceding the accident were

$ _____ / month

G. Fatal accident (to be completed where accident results in death)

Whether police was notified	Name and address of next-of-kin of the deceased employee	Relationship with the deceased employee
☐ Yes _____ (name of police station) ☐ No		Telephone No.

H. Direct settlement (to be completed only where the injury results in temporary incapacity for not more than 7 days and no permanent incapacity, and the employer and employee have chosen to directly settle the employees' compensation claim)

Period of sick leave	Amount of compensation:
from ____ / ____ / ____ to ____ / ____ / ____ Day / Month / Year Day / Month / Year ____ / ____ / ____ to ____ / ____ / ____ Day / Month / Year Day / Month / Year Total number of sick leave days : _____ days	$ _____ ☐ paid ☐ to be paid on ____ / ____ / ____ Day / Month / Year

I. Place of accident (tick one box)

The accident occurred in — ***(Note 7)***

Construction site	Shipyard	Manufactory	Others
☐ 01 Building worksite	☐ 04 Floating vessel	☐ 07 Production area	☐ 11 Container yard
☐ 02 Civil worksite	☐ 05 Non-floating vessel	☐ 08 Maintenance workshop	☐ 12 Catering establishment
☐ 03 Renovation/repair of existing buildings	☐ 06 Maintenance workshop	☐ 09 Loading/unloading area	☐ 13 Please specify _____
		☐ 10 Storage area	

Activity carried out on the site at the time of accident ***(Note 8)***

J. Nature of injury ***(Note 9)***

Describe the nature of injury

Indicate nature of injury (tick one box) —

☐ 01 Abrasion	☐ 06 Contusion & bruise	☐ 11 Electric shock	☐ 16 Poisoning
☐ 02 Amputation	☐ 07 Concussion	☐ 12 Fracture	☐ 17 Irritation
☐ 03 Asphyxia	☐ 08 Laceration and cut	☐ 13 Puncture wound	☐ 18 Nausea
☐ 04 Burn (heat)	☐ 09 Dislocation	☐ 14 Sprain & strain	☐ 19 Multiple injuries
☐ 05 Burn	☐ 10 Crushing	☐ 15 Freezing	☐ 20 Others (please specify) _____

Part of body injured (tick one box) —

Head	Neck & Trunk	Upper Limbs	Lower Limbs	
☐ 21 Skull/scalp	☐ 31 Neck	☐ 41 Finger	☐ 51 Hip	☐ 61 Multiple locations (please specify) _____
☐ 22 Eye	☐ 32 Back	☐ 42 Hand/palm	☐ 52 Thigh	
☐ 23 Ear	☐ 33 Chest	☐ 43 Forearm	☐ 53 Knee	
☐ 24 Mouth/tooth	☐ 34 Abdomen	☐ 44 Elbow	☐ 54 Leg	
☐ 25 Nose	☐ 35 Trunk	☐ 45 Upper arm	☐ 55 Ankle	
☐ 26 Face	☐ 36 Pelvis/groin	☐ 46 Shoulder	☐ 56 Foot	

K. Type of accident (tick one box) ***(Note 9)***

☐ 01 Trapped in or between objects	☐ 05 Striking against fixed or stationary object	☐ 10 Trapped by collapsing or overturning object	☐ 15 Exposure to fire
☐ 02 Injured whilst lifting or carrying	☐ 06 Striking against moving object	☐ 11 Struck by moving or falling object	☐ 16 Exposure to explosion
☐ 03 Slip, trip or fall on same level	☐ 07 Stepping on object	☐ 12 Struck by moving vehicle	☐ 17 Others (Please specify) _____
☐ 04 Fall of person from height* _____ metres	☐ 08 Exposure to or contact with harmful substance	☐ 13 Contact with moving machinery or object being machined	
	☐ 09 Contact with electricity or electric discharge	☐ 14 Drowning	

* distance through which person fell

L. Agents involved, if any (tick one or more boxes) ***(Note 9)***

☐ 01 Equipment for lifting/ conveying	☐ 04 Material/product being handled or stored	☐ 07 Movable container or package of any kind	☐ 10 Electricity supply, wiring apparatus or equipment
☐ 02 Portable power or hand tools	☐ 05 Ladder or working at height	☐ 08 Floor, ground, stairs or any working surface	☐ 11 Vehicle or associated equipment or machinery
☐ 03 Other machinery, please specify:	☐ 06 Sewage, manhole or other confined space	☐ 09 Gas, vapour, dust or fume	☐ 12 Others (Please specify) _____
Type : _____ Part causing injury: ☐ (a) prime mover ☐ (b) transmission part ☐ (c) working part			

Describe briefly the agents you have indicated ***(Note 9)***

M. Sketch (to supplement the descriptions given above, if considered necessary)

	For official use only
	I.A./Non-I.A. ☐
	Investigation ☐
	Processed by ☐

➢End of Part I◅

➢ Part II ≺

(To be completed if the accident occurred on a construction site)

N. Type of work performed by the employee at the time of accident (tick one box)

☐ 01	Concreting	☐ 07	Painting	☐ 13	Trench work	☐ 19	Slope work
☐ 02	Woodworking	☐ 08	Plastering	☐ 14	Gas pipe fitting	☐ 20	Others (please specify)
☐ 03	Glazier work	☐ 09	Arc/gas welding	☐ 15	Water pipe fitting		
☐ 04	Reinforcement bar bending	☐ 10	Formwork erection	☐ 16	Electrical wiring		
☐ 05	Bamboo scaffolding	☐ 11	Brick laying	☐ 17	Material handling		_____
☐ 06	Tubular scaffolding	☐ 12	Caisson work	☐ 18	Lift installation		

Whereabouts on the site such work was performed

O. Machinery involved, if any (tick one or more boxes) ***(Note 10)***

☐ 01	Skip/material hoist	☐ 06	Hydraulic crane	☐ 11	Bar bender
☐ 02	Passenger hoist/builders' lift	☐ 07	Suspended working platform	☐ 12	Concrete mixer
☐ 03	Tower crane	☐ 08	Boatswain's chair	☐ 13	Air compressor/receiver
☐ 04	Mobile crane	☐ 09	Pile driver	☐ 14	Others (please specify)
☐ 05	Lorry-mounted crane	☐ 10	Boring jig		_____

P. Transporting or construction machinery involved, if any (tick one box)

☐ 01	Dump truck	☐ 04	Bulldozer	☐ 07	Others (please specify)
☐ 02	Loader	☐ 05	Grader		
☐ 03	Excavator	☐ 06	Compacting roller		_____

➢End of Part II≺

Explanatory Notes

Note 1: The signature and company chop which appear in both copies of Form 2 submitted to the Commissioner for Labour should be in the original.

Note 2: If the Business Registration Certificate No. is not available, the Identity Card No. of the employing person should be entered.

Note 3: Section C on particulars of principal contractor/holding company should be completed only when the employer is either —

(a) a subcontractor; or

(b) a subsidiary of a holding company within the meaning of the Companies Ordinance (Cap. 32) and which is covered by and specified in the insurance policy taken out by the group of companies to which it belongs.

Note 4: Describe how the accident happened, state what the employee was doing at the time and give details of how the accident happened, e.g. what work was the injured doing, what factors (directly and indirectly) leading to the accident, and how he was injured, etc.

Note 5: The name and address of the insurer as appeared on the insurance policy, instead of those of the broker or agent, should be entered here.

Note 6: Earnings include —

(a) cash wages;

(b) the value of any privilege or benefit which can be estimated in cash, e.g. food, fuel or quarters supplied to the employee if, as a result of the accident, he is deprived of any of them;

(c) overtime or other special remuneration for work done, whether in the form of bonus, allowance or otherwise, if it is of a constant nature; and

(d) customary tips.

But remuneration for intermittent overtime, casual payments of a non-recurrent nature, the value of travelling allowances or concession and the employer's contributions to provident funds are not included.

Note 7: *Construction Site*

Building worksite: site for building substructure, superstructure, etc.

Civil worksite: site for building roads, bridges, etc.

Renovation/repair of existing buildings: internal or external renovation, repairing, painting or external wall cleaning, etc. (Note: Fitting-out in new buildings should be regarded as a building worksite.).

Shipyard

Floating vessel: ship building or repairing conducted on floating shipyard or floating vessel.

Non-floating vessel: ship building or repairing conducted on slipway or shore.

Maintenance workshop: maintenance workshop of the shipyard where parts of ships are machined, repaired or maintained.

Manufactory

Production area: production workshop or any location where actual production is being carried out.

Maintenance workshop: maintenance workshop of the manufactory where machinery parts are machined, repaired or maintained.

Loading/unloading area: location inside the manufactory assigned for loading and unloading activities including cargo handling.

Storage area: location inside the manufactory used for storage purpose.

Others

Container yard: the location where container handling, stacking and maintenance work, etc. are being carried out.

Note 8: Please briefly describe the main function of the workplace at the time of the accident.

Note 9: Please give details on the injury sustained, e.g. while working on a working platform, an employee twisted his ankle and fell 3 m onto the ground.

In the above example, the following boxes in sections J, K and L should be marked —

- In section J *Nature of injury*: Sprain & strain (box 14).
- In section J *Part of body injured*: Ankle (box 55).
- In section K *Type of accident*: Fall of person from 3 m (box 04).
- In section L *Agents involved*: Ladder or working at height (box 05).
- In the description of the agents indicated: A platform constructed of a plank which measured 5 m long by 2 m wide and by 5 mm thick.

Note 10: If none of the machinery provided is suitable, please tick box 14 and specify the name of the machinery or briefly describe the type of machinery involved.

Supplementary Information on Accidents on Construction Sites

Explanatory note :

*This is **not** a statutory form required to be submitted under the Employees' Compensation Ordinance for reporting accident. However, the co-operation of employers is sought to complete Sections I and II below for accidents occurred on construction sites. The supplementary information will be used for the purpose of accident analysis within Government and by the public bodies concerned.*

I. Particulars of worksite

Commencement of construction work: _____ / _____ Month / Year	Expected Date of Completion: _____ / _____ Month / Year
Contractor Name: _____ Site Address: _____ Contract No. (if available): _____ Date of Accident: _____ Contact Telephone: _____	_____ Chop of Company

II. Particulars of Project

(A) Nature of Project

☐ Civil Engineering ☐ Superstructure ☐ Maintenance and Repair

(B) Private Project

☐ Yes

If Yes, please give name and contact telephone no. of authorized person or project manager

Name: _____

Position: _____

Tel. No.: _____

☐ No

If No, please indicate below the type of public works/government project

(C) Public Works or Government Project

☐ 01 Architectural Services Department
☐ 02 Buildings Department
☐ 03 Civil Engineering Department
☐ 04 Drainage Services Department
☐ 05 Electrical & Mechanical Services Department
☐ 06 Highways Department
☐ 07 Territory Development Department
☐ 08 Water Supplies Department
☐ 09 Housing Department
☐ 10 Kowloon-Canton Railways Corporation
☐ 11 Mass Transit Railways Corporation
☐ 12 Airport Authority
☐ 13 Others (please specify)

_____

Please '✓' in the appropriate box.

L.D. 27(C) Rev (5/00)

The data structure of the WDD-4.7 Death Incapacity Notice message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.7-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-4.7-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-4.7-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Death Incapacity Notice	Death Incapacity Notice	-	Document for a death/incapacity notice.
1.1	Reporting Person Signature	Signature	Optional / Once	Signature of person reporting an accident.
1.2	Reporting Person Signature Date	Date	Mandatory / Once	Date on which person reporting an accident signs a death/incapacity notice.
1.3	Reporting Person Title	Code	Mandatory / Once Enumeration = S,P,M,O	Title of person reporting an accident.
1.4	Reporting Person Name	Name	Mandatory / Once	Name of person reporting an accident.
1.5	Company Signature	Signature	Optional / Once	Signature of organization with which reporter of an accident affiliates.
1.6	Injured Deceased Worker	Death Incapacity Notice Injured Deceased Worker	Mandatory / Once	Information on worker injured/killed in an accident.
1.6.1	Surname	Name	Mandatory / Once	Surname of an injured/deceased worker.
1.6.2	Given Name	Name	Mandatory / Once	Given name of an injured/deceased worker.

Level No.	Data Component	Type	Constraints	Definition
1.6.3	HKID Passport Number	Text	Mandatory / Once	HKID/passport number of an injured/deceased worker.
1.6.4	Telephone Number	Text	Mandatory / Once	Telephone number of an injured/deceased worker.
1.6.5	Fax Number	Text	Mandatory / Once	Fax number of an injured/deceased worker.
1.6.6	Address	Text	Mandatory / Once	Address of an injured/deceased worker.
1.6.7	Birthday	Date	Mandatory / Once	Birthday of an injured/deceased worker.
1.6.8	Gender	Code	Mandatory / Once Len. = 1, Enumeration = M,F,U	A code to indicate the gender of a person (M=male, F=female, U=unknown).
1.6.9	Occupation	Text	Mandatory / Once	Occupation of an injured/deceased worker.
1.6.10	Apprentice Indicator	Boolean	Mandatory / Once	Flag indicating whether an injured/deceased worker is an apprentice.
1.7	Employer	Employer	Mandatory / Once	Information on employer of worker injured/killed in an accident.
1.7.1	Name	Name	Mandatory / Once	Name of employer.
1.7.2	HK Business Registration Number HKID Number	Text	Mandatory / Once	HK Business Registration Number/HKID Number of an employer.
1.7.3	Telephone Number	Text	Mandatory / Once	Telephone number of an employer.

Level No.	Data Component	Type	Constraints	Definition
1.7.4	Fax Number	Text	Mandatory / Once	Fax number of an employer.
1.7.5	Address	Text	Mandatory / Once	Address of an employer.
1.7.6	Trade	Text	Mandatory / Once	Trade of an employer.
1.8	Principal Contractor Holding Company	Principal Contractor Holding Company	Optional / Once	Information on principal contractor of construction site or holding company of the employer.
1.8.1	Name	Name	Mandatory / Once	Name of a principal contractor/holding company.
1.8.2	HK Business Registration Number	HK Business Registration Number	Mandatory / Once	HK Business Registration Number of a principal contractor/holding company.
1.8.2.1	Business Registration Number	Text	Mandatory / Once Expression = 8 numeric digits, Patterns = [0-9]{8}, Len. = 8	A unique reference assigned by the Inland Revenue Department of the HKSARG to a business organization

Level No.	Data Component	Type	Constraints	Definition
1.8.2.2	Branch Number	Text	Optional / Once Expression = 1 alphanumeric character followed by 2 numeric digits, Patterns = [A-Z0-9]{1}[0-9]{2}, Len. = 3	Optional Branch Number within the business organization
1.8.3	Telephone Number	Text	Mandatory / Once	Telephone number of a principal contractor/holding company.
1.8.4	Fax Number	Text	Mandatory / Once	Fax number of a principal contractor/holding company.
1.8.5	Address	Text	Mandatory / Once	Address of a principal contractor/holding company.
1.8.6	Trade	Text	Mandatory / Once	Trade of a principal contractor/holding company.
1.9	Accident	Accident	Mandatory / Once	Information on an accident during which a worker was injured/killed.
1.9.1	Description	Text	Mandatory / Once	Description of an accident , including how the accident happened and what the employee was doing.
1.9.2	Occur During Work Indicator	Boolean	Mandatory / Once	Flag indicating whether an accident occurred in the course of work.
1.9.3	Accident Date Time	Date Time	Mandatory / Once	Date and time during which an accident occurred.

Level No.	Data Component	Type	Constraints	Definition
1.9.4	Result Indicator	Indicator	Mandatory / Once Enumeration = D,I	Result of an accident.
1.9.5	Address	Text	Mandatory / Once	Address of the place of an accident.
1.9.6	Hospital Clinic Name	Name	Mandatory / Once	Name of hospital/clinic where an employee received treatment.
1.10	Insurance	Insurance	Mandatory / Once	Information on insurance for worker injured/killed in an accident.
1.10.1	Insurance Company Name Address	Text	Mandatory / Once	Name and address of insurance company at the time of accident.
1.10.2	Policy Number	Identifier	Mandatory / Once	Policy number of insurance.
1.11	Injured Deceased Worker Earning	Worker Earning	Mandatory / Once	Information on earning of worker injured/killed in an accident.
1.11.1	Average Monthly Working Day Count	Code	Mandatory / Once Enumeration = 01,02,03,04,05	Average number of worker's working days per month.
1.11.2	Other Average Monthly Working Day Count Specification	Numeric	Optional / Once Min. Incl. = 0, Max. Incl. = 31	Specification of other average monthly working day count of worker.
1.11.3	Paid Rest Day Indicator	Boolean	Mandatory / Once	Flag indicating whether rest day of worker is paid.
1.11.4	Fixed Rest Day Indicator	Boolean	Mandatory / Once	Flag indicating whether rest day of worker is fixed.

Level No.	Data Component	Type	Constraints	Definition
1.11.5	Fixed Rest Day	Text	Optional / Once	Day of week on which rest day of worker is fixed.
1.11.6	Monthly Basic Salary	Amount	Mandatory / Once	Monthly basic salary of worker.
1.11.7	Monthly Food Allowance	Amount	Optional / Once	Monthly food allowance/value of free food provided by employer for a worker.
1.11.8	Other Earning Item	Worker Earning Item	Optional / Once	Other earning item of a worker.
1.11.8.1	Type	Text	Mandatory / Once	Type of an earning item.
1.11.8.2	Amount	Amount	Mandatory / Once	Amount of an earning item.
1.11.9	Total Monthly Earning	Amount	Mandatory / Once	Total monthly earning of worker.
1.11.10	Past Year Average Monthly Earning	Amount	Mandatory / Once	Average monthly earning of worker for the past twelve months, or total period of employment if less than twelve months, preceding the accident.
1.12	Fatal Accident	Fatal Accident	Optional / Once	Information on a fatal accident during which a worker was killed.
1.12.1	Police Notified Indicator	Boolean	Mandatory / Once	Flag indicating whether police was notified for a fatal accident.
1.12.2	Police Station	Name	Optional / Once	Name of police station notified for a fatal accident.
1.12.3	Worker Next Kin Name Address	Text	Mandatory / Once	Name and address of next of kin of a deceased worker.
1.12.4	Worker Next Kin Relationship	Text	Mandatory / Once	Relationship of next of kin with a deceased worker.

Level No.	Data Component	Type	Constraints	Definition
1.12.5	Worker Next Kin Telephone Number	Text	Mandatory / Once	Telephone number of next of kin of a deceased worker.
1.13	Worker Compensation Direct Settlement	Worker Compensation Direct Settlement	Optional / Once	Information on direct settlement of compensation for worker whose injury results only in temporary incapacity for not more than seven days and no permanent incapacity, and the employer and worker have chosen to directly settle the worker's compensation claim.
1.13.1	Worker Sick Leave Period	Period	Optional / Multiple	Sick leave period of worker.
1.13.1.1	Start Date	Date	Mandatory / Once	Start date of a period of time.
1.13.1.2	End Date	Date	Mandatory / Once	End date of a period of time.
1.13.2	Worker Total Sick Leave Day Count	Count	Mandatory / Once	Total number of sick leave days of worker.
1.13.3	Compensation Amount	Amount	Mandatory / Once	Compensation amount for the worker.
1.13.4	Compensation Paid Indicator	Boolean	Mandatory / Once	Flag indicating whether compensation has been paid.
1.13.5	Compensation Pay Date	Date	Optional / Once	Date on which compensation for worker will be paid.
1.14	Accident Location	Accident Location	Mandatory / Once	Information on location of accident during which a worker was injured/killed.

Level No.	Data Component	Type	Constraints	Definition
1.14.1	Code	Code	Mandatory / Once Enumeration = 01,02,03,04,05, 06,07,08,09,10, 12,13	Code representing the location at which an accident occurred.
1.14.2	Other Specification	Text	Optional / Once	Specification of other location at which an accident occurred.
1.14.3	Activity During Accident	Text	Mandatory / Once	Activity carried out on the site during an accident.
1.15	Worker Injury Nature	Worker Injury Nature	Mandatory / Once	Information on injury nature of a worker injured/killed in an accident.
1.15.1	Injury Description	Text	Mandatory / Once	Description of injury of worker.
1.15.2	Code	Code	Mandatory / Once Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12,13,14,15, 16,17,18,19,20	Code representing nature of injury of a worker.
1.15.3	Other Specification	Text	Optional / Once	Specification of other injury nature of a worker.

Level No.	Data Component	Type	Constraints	Definition
1.15.4	Body Part Injured	Code	Mandatory / Once Enumeration = 21,22,23,24,25, 26,31,32,33,34, 35,36,41,42,43, 44,45,46,51,52, 53,54,55,56,61	Body part of a worker that was injured.
1.15.5	Multiple Body Part Injured Specification	Text	Optional / Once	Specification of multiple body parts of a worker that were injured.
1.16	Accident Type	Code	Mandatory / Once Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12,13,14,15, 16,17	Type of accident.
1.17	Other Accident Type Specification	Text	Optional / Once	Specification of other accident type.
1.18	Worker Falling Height	Measure	Optional / Once	Height from which a worker fell.
1.19	Accident Involving Agent	Accident Involving Agent	Optional / Once	Information on agent involved in an accident during which a worker was injured/killed.

Level No.	Data Component	Type	Constraints	Definition
1.19.1	Code	Code	Mandatory / Multiple Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12	Code representing an agent involved in an accident.
1.19.2	Other Specification	Text	Optional / Once	Specification of other agent involved in an accident.
1.19.3	Other Machinery Type	Text	Optional / Once	Type of other machinery, which is an agent involved in an accident.
1.19.4	Other Machinery Causing Injury Part	Code	Optional / Once Enumeration = a,b,c	Part of other machinery, which is an agent involved in an accident, causing injury.
1.19.5	Description	Text	Mandatory / Once	Description of agent involved in an accident.
1.20	Attachment Image	Name	Optional / Once	Attachment file name of the sketch.
1.21	Construction Site Accident	Construction Site Accident	Optional / Once	Information on an accident that happened in a construction site during which a worker was injured/killed.
1.21.1	Work Type Performed	Code	Mandatory / Once Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12,13,14,15, 16,17,18,19,20	Work type performed by an injured worker during an accident at a construction site.

Level No.	Data Component	Type	Constraints	Definition
1.21.2	Other Work Type Performed Specification	Text	Optional / Once	Specification of other work type performed by an injured worker during an accident at a construction site.
1.21.3	Work Performing Whereabouts	Text	Mandatory / Once	Whereabouts on site the work was performed by an injured worker.
1.21.4	Machinery Involved	Code	Optional / Multiple Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12,13,14	Machinery involved in an accident at a construction site.
1.21.5	Other Machinery Involved Specification	Text	Optional / Once	Specification of other machinery involved in an accident at a construction site.
1.21.6	Transporting Construction Machinery Involved	Code	Optional / Once Enumeration = 01,02,03,04,05, 06,07	Transporting/construction machinery involved in an accident at a construction site.
1.21.7	Other Transporting Construction Machinery Involved Specification	Text	Optional / Once	Specification of other transporting/construction machinery involved in an accident at a construction site.
1.22	Supplementary Information	Death Incapacity Notice Supplementary Information	Optional / Once	Supplementary information for a death/incapacity notice for analysis purpose.
1.22.1	Accident Site	Accident Site	Mandatory / Once	Information on a construction site at which an accident reported in a death/incapacity notice happened.

Level No.	Data Component	Type	Constraints	Definition
1.22.1.1	Work Commencement Month	Numeric	Mandatory / Once Min. Incl. = 1, Max. Incl. = 12	Month in which work commences.
1.22.1.2	Work Commencement Year	Numeric	Mandatory / Once Tot. Digits = 4	Year in which work commences.
1.22.1.3	Work Anticipated Completion Month	Numeric	Mandatory / Once Min. Incl. = 1, Max. Incl. = 12	Month in which work is anticipated to be completed.
1.22.1.4	Work Anticipated Completion Year	Numeric	Mandatory / Once Tot. Digits = 4	Year in which work is anticipated to be completed.
1.22.1.5	Contractor	Name	Mandatory / Once	Name of contractor of construction site at which an accident occurred.
1.22.1.6	Contract Number	Identifier	Optional / Once	Identifier of contract of construction site at which an accident occurred.
1.22.1.7	Site Address	Text	Mandatory / Once	Address of construction site at which an accident occurred.
1.22.1.8	Site Telephone Number	Text	Mandatory / Once	Telephone number of construction site at which an accident occurred.
1.22.1.9	Accident Date	Date	Mandatory / Once	Date on which an accident occurred.
1.22.1.10	Company Signature	Signature	Optional / Once	Signature of company submitting the supplementary information for a death/incapacity notice.

Level No.	Data Component	Type	Constraints	Definition
1.22.2	Project Nature	Code	Mandatory / Once Enumeration = C,S,M	Nature of a construction project.
1.22.3	Public Private Project Indicator	Indicator	Mandatory / Once Enumeration = U,V	Flag indicating whether a construction project is a public or private one.
1.22.4	Project Manager Name	Name	Optional / Once	Name of project manager of a construction project.
1.22.5	Project Manager Title	Text	Optional / Once	Title of project manager of a construction project.
1.22.6	Project Manager Telephone Number	Text	Optional / Once	Telephone number of project manager of a construction project.
1.22.7	Public Works Type	Code	Optional / Once Enumeration = 01,02,03,04,05, 06,07,08,09,10, 11,12,13	Type of public works.
1.22.8	Other Public Works Type Specification	Text	Optional / Once	Specification of other type of public works.

The code lists used in this message are listed below:

Data component: Death Incapacity Notice/Injured Deceased Worker/Gender

Code	Description
M	Male
F	Female
U	Unknown

Data component: Death Incapacity Notice/Supplementary Information/Project Nature

Code	Description
C	Civil Engineering
S	Superstructure
M	Maintenance and Repair

Data component: Death Incapacity Notice/Supplementary Information/Public Private Project Indicator

Code	Description
U	Public works or government project
V	Private project

Data component: Death Incapacity Notice/Supplementary Information/Public Works Type

Code	Description
01	Architectural Services Department
02	Buildings Department
03	Civil Engineering and Development Department
04	Drainage Services Department
05	Electrical and Mechanical Services Department
06	Highways Department
08	Water Supplies Department
09	Housing Department

10	Kowloon-Canton Railways Corporation
11	Mass Transit Railways Corporation
12	Airport Authority
13	Others (specify)

Data component: Death Incapacity Notice/Reporting Person Title

Code	Description
S	Sole proprietor
P	Partner
M	Manager
O	Officer

Data component: Death Incapacity Notice/Accident/Result Indicator

Code	Description
D	Death
I	Injury

Data component: Death Incapacity Notice/Injured Deceased Worker Earning/Average Monthly Working Day Count

Code	Description
01	22
02	24
03	26
04	30
05	Others (specify)

Data component: Death Incapacity Notice/Accident Location/Code

Code	Description
01	Construction Site - Building worksite
02	Construction Site - Civil worksite

03	Construction Site - Renovation / Repair of existing buildings
04	Shipyard - Floating vessel
05	Shipyard - Non-floating vessel
06	Shipyard - Maintenance workshop
07	Manufactory - Production area
08	Manufactory - Maintenance workshop
09	Manufactory - Loading / unloading area
10	Manufactory - Storage area
12	Others - Catering establishment
13	Others (specify)

Data component: Death Incapacity Notice/Worker Injury Nature/Code

Code	**Description**
01	Abrasion
02	Amputation
03	Asphyxia
04	Burn (heat)
05	Burn
06	Contusion and bruise
07	Concussion
08	Laceration and cut
09	Dislocation
10	Crushing
11	Electric shock
12	Fracture
13	Puncture wound
14	Sprain and strain
15	Freezing
16	Poisoning

17	Irritation
18	Nausea
19	Multiple injuries
20	Others (specify)

Data component: Death Incapacity Notice/Worker Injury Nature/Body Part Injured

Code	Description
21	Head - Skull / Scalp
22	Head - Eye
23	Head - Ear
24	Head - Mouth / Tooth
25	Head - Nose
26	Head - Face
31	Neck and Trunk - Neck
32	Neck and Trunk - Back
33	Neck and Trunk - Chest
34	Neck and Trunk - Abdomen
35	Neck and Trunk - Trunk
36	Neck and Trunk - Pelvis / Groin
41	Upper Limbs - Finger
42	Upper Limbs - Hand / Palm
43	Upper Limbs - Forearm
44	Upper Limbs - Elbow
45	Upper Limbs - Upper arm
46	Upper Limbs - Shoulder
51	Lower Limbs - Hip
52	Lower Limbs - Thigh
53	Lower Limbs - Knee
54	Lower Limbs - Leg

55	Lower Limbs - Ankle
56	Lower Limbs - Foot
61	Multiple locations (specify)

Data component: Death Incapacity Notice/Accident Type

Code	Description
01	Trapped in or between objects
02	Injured whilst lifting or carrying
03	Slip, trip or fall on same level
04	Fall of person from height (specify) metres
05	Striking against fixed or stationary object
06	Striking against moving object
07	Stepping on object
08	Exposure to or contact with harmful substance
09	Contact with electricity or electric discharge
10	Trapped by collapsing or overturning object
11	Struck by moving or falling object
12	Struck by moving vehicle
13	Contact with moving machinery or object being machined
14	Drowning
15	Exposure to fire
16	Exposure to explosion
17	Others (specify)

Data component: Death Incapacity Notice/Accident Involving Agent/Code

Code	Description
01	Equipment for lifting / conveying
02	Portable power or hand tools
03	Other machinery (specify)

04	Material / Project being handled or stored
05	Ladder or working at height
06	Sewage, manhole or other confined space
07	Movable container or package of any kind
08	Floor, ground, stairs or any working surface
09	Gas, vapour, dust or fume
10	Electricity supply, wiring apparatus or equipment
11	Vehicle or associated equipment or machinery
12	Others (specify)

Data component: Death Incapacity Notice/Accident Involving Agent/Other Machinery Causing Injury Part

Code	Description
a	Prime mover
b	Transmission part
c	Working part

Data component: Death Incapacity Notice/Work Type Performed

Code	Description
01	Concreting
02	Woodworking
03	Glazier work
04	Reinforcement bar bending
05	Bamboo scaffolding
06	Tubular scaffolding
07	Painting
08	Plastering
09	Arc / Gas welding
10	Formwork erection
11	Brick laying

12	Caisson work
13	Trench work
14	Gas pipe fitting
15	Water pipe fitting
16	Electrical wiring
17	Material handling
18	Lift installation
19	Slope work
20	Others (specify)

Data component: Death Incapacity Notice/Machinery Involved

Code	**Description**
01	Skip / Material hoist
02	Passenger hoist / Builders' lift
03	Tower crane
04	Mobile crane
05	Lorry-mounted crane
06	Hydraulic crane
07	Suspended working platform
08	Boatswain's chair
09	Pile driver
10	Boring rig
11	Bar bender
12	Concrete mixer
13	Air compressor / receiver
14	Others (specify)

Data Component: Death Incapacity Notice/Transporting Construction Machinery Involved

Code	**Description**

01	Dump truck
02	Loader
03	Excavator
04	Bulldozer
05	Grader
06	Compacting roller
07	Others (specify)

8.1.5 WDD-5 Inspection Request

This domain covers the data standard to request for inspection or survey of site works.

WDD-5 contains one message:

1. WDD-5.0 Inspection Survey Request

8.1.5.1 WDD-5.0 Inspection Survey Request

The following is the following Inspection / Survey Check Request Form in the PAH Appendix 7.9.

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APPENDIX 7.9 INSPECTION/SURVEY CHECK REQUEST FORM

Contract No. _____ Request No. _____

To Engineer's Representative

This is a new submission/re-submission (previous request no. _____)*

(1)	Location of work		Date & Time
(2)	Work to be Inspected/ Surveyed		
(3)	Work Proposed after Approval of (2)		
(4)	Remarks (if this is a re-submission state work carried out since last inspection/survey)		

REQUESTED BY : _____ TIME : _____

DESIGNATION : _____ DATE : _____

Received by ER/IOW* TIME : _____ DATE : _____

NAME : _____ SIGNED : _____

Filled in by ER/IOW* Mr. : _____ Please arrange inspection/check setting out*

SIGNED : _____ DATE : _____

Filled in by Inspector/Surveyor*

Work outlined in (2) above has been inspected/surveyed*. Permission to carry out proposed work outlined in (3) above is given/not given* for the following reason(s):

_____

_____

This in no way limits or alters the Contractor's obligations under the Contract.
Form is returned to the Contractor at time stated below.

SIGNED : _____ TIME : _____

DESIGNATION : _____ DATE : _____

COUNTERSIGNED : _____ TIME : _____

DESIGNATION : _____ DATE : _____

Received on behalf of Contractor by

NAME : _____ TIME : _____

SIGNED : _____ DATE : _____

N.B. Top copy – E.R.
Duplicate – Contractor
* Delete where inappropriate
# Countersigned by Resident Engineer may be required for critical items

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The data structure of the WDD-5.0 Inspection-Survey Request message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-5.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-5.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-5.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Inspection Survey Request	Inspection Survey Request	-	Document for an inspection/survey check request.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site for which an inspection/survey check request is submitted.
1.2	Request Number	Identifier	Mandatory / Once	Request number, which is an identifier of a request.
1.3	Submission Type	Indicator	Mandatory / Once Enumeration = N,R	Type of submission, stating whether it is a new submission or a re-submission.
1.4	Previous Request Number	Identifier	Optional / Once	Identifier of previous request.
1.5	Work Location	Text	Mandatory / Once	Location of work.
1.6	Work Being Inspected Surveyed	Text	Mandatory / Once	Work to be inspected/surveyed.
1.7	Inspection Survey Date Time	Date Time	Mandatory / Once	Date and time during which work is inspected/surveyed.
1.8	Proposed Work Succeeding Approval	Text	Mandatory / Once	Work proposed after approval of work to be inspected/surveyed.

Level No.	Data Component	Type	Constraints	Definition
1.9	Proposed Work Succeeding Approval Date Time	Date Time	Mandatory / Once	Date and time during which work proposed after approval of work to be inspected/surveyed is carried out.
1.10	Remark	Text	Optional / Once	Remark or description of work carried out since last inspection/survey.
1.11	Remark Date Time	Date Time	Optional / Once	Date and time during which work since last inspection/survey is carried out.
1.12	Requesting Person Name	Name	Optional / Once	Name of person requesting an inspection/survey check.
1.13	Request Date Time	Date Time	Optional / Once	Date and time during which person requesting an inspection/survey check signs the request.
1.14	Requesting Person Title	Text	Optional / Once	Title of person requesting an inspection/survey check.
1.15	Receiving Person Signature	Signature	Optional / Once	Signature of person receiving an inspection/survey check.
1.16	Receiving Person Signature Date Time	Date Time	Optional / Once	Date and time during which person receiving an inspection/survey check signs the request.
1.17	Receiving Person Title	Code	Optional / Once Enumeration = E,I	Title of person receiving an inspection/survey check.
1.18	Receiving Person Name	Name	Optional / Once	Name of person receiving an inspection/survey check.
1.19	Arrangement Type	Indicator	Optional / Once Enumeration = I,C	Type of arrangement to be made.

Level No.	Data Component	Type	Constraints	Definition
1.20	Filling Person Signature	Signature	Optional / Once	Signature of person filling in an inspection/survey check.
1.21	Filling Person Signature Date	Date	Optional / Once	Date on which person filling in an inspection/survey check signs the request.
1.22	Filling Person Title	Code	Optional / Once Enumeration = E,I	Title of person filling in an inspection/survey check.
1.23	Filling Person Name	Name	Optional / Once	Name of person filling in an inspection/survey check.
1.24	Inspected Surveyed Indicator	Indicator	Optional / Once Enumeration = I,S	Flag indicating work has been inspected or surveyed.
1.25	Proposed Work Permission Indicator	Boolean	Optional / Once	Flag indicating whether permission has been given for proposed work to be carried out.
1.26	Proposed Work Permission Reason	Text	Optional / Once	Reason for giving/not giving permission for proposed work to be carried out.
1.27	Inspector Surveyor Signature	Signature	Optional / Once	Signature of inspector/surveyor.
1.28	Inspector Surveyor Signature Date Time	Date Time	Optional / Once	Date and time during which inspector/surveyor signs on the request.
1.29	Inspector Surveyor Indicator	Indicator	Optional / Once Enumeration = I,S	Flag indicating the person signing on the request is an inspector or a surveyor.
1.30	Inspector Surveyor Title	Text	Optional / Once	Title of inspector/surveyor.

Level No.	Data Component	Type	Constraints	Definition
1.31	Countersigning Person Signature	Signature	Optional / Once	Signature of countersigning person.
1.32	Countersigning Person Signature Date Time	Date Time	Optional / Once	Date and time during which a countersigning person signs on the request.
1.33	Countersigning Person Title	Text	Optional / Once	Title of countersigning person.
1.34	Contractor Representative Signature	Signature	Optional / Once	Signature of contractor's representative.
1.35	Contractor Representative Signature Date Time	Date Time	Optional / Once	Date and time during which a contractor's representative signs on the request.
1.36	Contractor Representative Name	Name	Optional / Once	Name of contractor's representative.

The code lists used in this message are listed below:

Data component: Inspection Survey Request/Submission Type

Code	Description
N	New Submission
R	Re-submission

Data component: Inspection Survey Request/Arrangement Type

Code	Description
I	Inspection
C	Check setting out

Data component: Inspection Survey Request/Receiving Person Title

Code	Description
E	ER
I	IOW

Data component: Inspection Survey Request/Filling Person Title

Code	Description
E	ER
I	IOW

Data component: Inspection Survey Request/Inspected Surveyed Indicator

Code	Description
I	Inspected
S	Surveyed

Data component: Inspection Survey Request/Inspector Surveyor Indicator

Code	Description
I	Inspector
S	Surveyor

8.1.6 WDD-6 Test Records

WDD-6 is aimed to support the communication of test records of the concerned tests. WDD-6 contains the following messages:

1. WDD-6.0 Concrete Test Cube Register
2. WDD-6.1 Drainage Test
3. WDD-6.2 Field Density Determination
4. WDD-6.3 Soil Compaction Test Summary
5. WDD-6.4 Prestressed Tensioning Test
6. WDD-6.5 Drainage Pipeline Water Test
7. WDD-6.6 Bearing Expansion Joint Performance

8.1.6.1 WDD-6.0 Concrete Test Cube Register Message

The following is the Concrete Test Cube Register form from the PAH Appendix 7.10:

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APPENDIX 7.10 CONCRETE TEST CUBE REGISTER
(to be kept in a book)

Contract No. _____ Concrete Grade _____ Batching _____ Cement Brand _____ Additives _____ Coarse Agg. Source _____ Fines Source _____

Request Form No.	Date of Cast	Location	Slump (mm)	Compliance (Y/N)	28-day Results							Average four consecutive results	Standard Deviation (N/mm^2)	Compliance Criteria	Compliance (Y/N)	Remarks (Follow-up action)
					Test Certificate No.	Cube Mark	Date of Test	Age (days)	Density (kg/m^3)	Compressive Strength (N/mm^2)	Test Result					

Note : Please refer GS Clause 16.61 for compliance criteria for compressive strength of designed mix concrete.

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The data structure of the WDD-6.0 Concrete Test Cube Register message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Concrete Test Cube Register	Concrete Test Cube Register	-	Document for a concrete test cube register.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract that is related to a concrete test cube register.
1.2	Concrete Grade	Text	Mandatory / Once	Grade of a concrete cube indicating the concrete strength, size, etc.
1.3	Batching	Text	Mandatory / Once	Composition of a concrete cube.
1.4	Cement Brand	Text	Mandatory / Once	Brand name of a concrete cube.
1.5	Additive	Text	Mandatory / Once	Additive introduced to a concrete cube.
1.6	Coarse Aggregation Source	Text	Mandatory / Once	Source location of coarse aggregation cement.
1.7	Fine Source	Text	Mandatory / Once	Source location of fine cement.
1.8	Four Consecutive Test Record	Concrete Test Cube Register Four Consecutive Test Record	Mandatory / Multiple	Four consecutive test records.
1.8.1	Average Four Consecutive Result	Text	Mandatory / Once	Average of four consecutive test results.

Level No.	Data Component	Type	Constraints	Definition
1.8.2	Standard Deviation	Measure	Mandatory / Once	Standard deviation of four consecutive test results.
1.8.3	Compliance Criteria	Text	Mandatory / Once	Compliance criteria of a concrete cube.
1.8.4	Compliance Indicator	Boolean	Mandatory / Once	Indicator of whether a concrete cube is compliant based on the four consecutive test results.
1.8.5	Remark	Text	Optional / Once	Remark related to four consecutive test results.
1.8.6	Record	Concrete Test Cube Register Test Record	Mandatory / Multiple	Record of individual test.
1.8.6.1	Request Number	Identifier	Mandatory / Once	Request number, which is an identifier of a request.
1.8.6.2	Cast Date	Date	Mandatory / Once	Date of cast.
1.8.6.3	Location	Text	Mandatory / Once	Location of test.
1.8.6.4	Slump	Measure	Mandatory / Once	Concentration of a concrete cube.
1.8.6.5	Compliance Indicator	Boolean	Mandatory / Once	Flag indicating whether a concrete cube is compliant.
1.8.6.6	Twenty Eight Day Result	Concrete Test Cube Register Twenty Eight Day Result	Mandatory / Once	Twenty eight day result of a test record.
1.8.6.6.1	Test Certificate Number	Identifier	Mandatory / Once	Certificate number of test.
1.8.6.6.2	Cube Mark	Identifier	Mandatory / Once	Identifier of concrete cube.

Level No.	Data Component	Type	Constraints	Definition
1.8.6.6.3	Test Date	Date	Mandatory / Once	Date on which a test is conducted.
1.8.6.6.4	Age	Measure	Mandatory / Once	Number of days a concrete cube is dipped into water before the test.
1.8.6.6.5	Density	Measure	Mandatory / Once	Density of a concrete cube.
1.8.6.6.6	Compressive Strength	Measure	Mandatory / Once	Compressive strength of a concrete cube.
1.8.6.6.7	Test Result	Text	Mandatory / Once	Result of test.

8.1.6.2 WDD-6.1 Drainage Test Message

The following is the Drainage Testing Form from the PAH Appendix 7.2:

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APPENDIX 7.2 DRAINAGE TESTING FORM

Testing of Gravity Pipelines for Drainage Works (GS Clause 5.101)

Location : _____ Date :

Internal Diameter of Pipe : D (m) _____

Length of Pipeline : L (m) _____

1. AIR TEST (Test for Pipeline of all Diameter)

Initial water head in glass U tube : 100mm

Final water head in glass U tube : mm (not less than 75mm is a pass)

Test duration : 5 mins. (to)

2. WATER TEST (Test for Pipeline of all Diameter)

Pipeline filled up with water at :

Pressure Head above the soffit of the pipe at the high / low end :

Test started at : _____

Test completed at : _____ T : _____ (mins.)

Permitted Leakage = D x L x T/60 litres

: _____ litres

Amount of water added : _____ litres

Time	Time Elapsed (min)	Amount of water added (litre)
	0	
	5	
	10	
	15	
	20	
	25	
	30	

Testing pressure : 1.2m head of water above soffit of pipe at high end
(and less than 6m head of water at the invert of the low end of pipe.)

3. VISUAL INSPECTION (for Pipeline exceeding 900mm diameter)

4. INFILTRATION TEST (for Sewage Pipelines of all diameter BS 8005 : Part 1 Clause 13.6)

5. Remarks

Test Result : PASSED / FAILED **Recorded By :** _____

_____ _____

For ( ) Contractor **For Engineer's Representative**

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-6.1 Drainage Test message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.1-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Drainage Test	Drainage Test	-	Document for a drainage test.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract that is related to a drainage test.
1.2	Test Location	Text	Mandatory / Once	Location of test.
1.3	Report Date	Date	Mandatory / Once	Date on which a test report is prepared.
1.4	Pipe Internal Diameter	Measure	Mandatory / Once	Internal diameter of a pipe.
1.5	Pipeline Length	Measure	Mandatory / Once	Length of pipeline.
1.6	Air Test	Pipeline Air Test	Optional / Once	Air test of a pipeline for drainage works.
1.6.1	Final Water Head	Measure	Mandatory / Once	Final water head in glass U tube in a pipeline air test.
1.6.2	Start Time	Time	Mandatory / Once	Date and time during which a pipeline air test starts.
1.6.3	End Time	Time	Mandatory / Once	Date and time during which a pipeline air test ends.
1.7	Water Test	Pipeline Water Test	Optional / Once	Water test of a pipeline for drainage works.

Level No.	Data Component	Type	Constraints	Definition
1.7.1	Water Level	Measure	Mandatory / Once	Level at which a pipeline is filled up with water.
1.7.2	High End Pressure Head	Measure	Optional / Once	Initial reading of pressure head above a soffit of a pipe at high end.
1.7.3	Low End Pressure Head	Measure	Optional / Once	Initial reading of pressure head above a soffit of a pipe at low end.
1.7.4	Test Start Date Time	Date Time	Mandatory / Once	Date and time during which a pipeline water test starts.
1.7.5	Test End Date Time	Date Time	Mandatory / Once	Date and time during which a pipeline water test ends.
1.7.6	Time Duration	Measure	Mandatory / Once	Time duration of a pipeline water test.
1.7.7	Permitted Leakage	Measure	Mandatory / Once	Permitted water leakage.
1.7.8	Total Added Water	Measure	Mandatory / Once	Total amount of water added.
1.7.9	Test Record	Pipeline Water Test Record	Mandatory / Multiple	Test record of a pipeline water test.
1.7.9.1	Time	Time	Mandatory / Once	Time at which water is added.
1.7.9.2	Added Water	Measure	Mandatory / Once	Amount of water added.
1.8	Visual Inspection	Text	Optional / Once	Visual inspection for pipeline exceeding 900mm diameter.
1.9	Infiltration Test	Text	Optional / Once	Infiltration test for sewage pipeline of all diameters.
1.10	Remark	Text	Optional / Once	Remark related to a drainage test.

Level No.	Data Component	Type	Constraints	Definition
1.11	Test Result Indicator	Indicator	Mandatory / Once Enumeration = P,F	Test result of a drainage test.
1.12	Recording Person Name	Name	Mandatory / Once	Name of person recording a drainage test.
1.13	Contractor Signature	Signature	Optional / Once	Signature of contractor.
1.14	Contractor Name	Name	Optional / Once	Name of contractor.
1.15	Engineer Representative Signature	Signature	Optional / Once	Signature of engineer's representative.
1.16	Engineer Representative Name	Name	Optional / Once	Name of engineer's representative.

The code lists used in this message are listed below:

Data component: Drainage Test/Test Result Indicator

Code	Description
P	Pass
F	Fail

8.1.6.3 WDD-6.2 Field Density Determination

The following is the Field Density Determination Form in the PAH Appendix 7.11:

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APPENDIX 7.11 FIELD DENSITY DETERMINATION FORM

Test Request No. : _____

Date test _____ Date test completed : _____

Scope of test : a) Determination of the insitu bulk density and insitu dry density of soil by the sand replacement method suitable for fine-and medium-grained / fine-, medium-and coarse grained* soil (with small / large* pouring cylinder in accordance with Test No. 9.2.1/9.2.2* of GEO Report No. 36 (PWLTM SOL 8.1(a)/8.1(b)*)

b) Determination of relative compaction of fill material in accordance with PWLTM SOL 8.6 is / is not* required.

Weather and environment conditions at time of test: _____

Pouring cylinder	No.		Mass of sand	In cylinder before pouring, m_1	(g)	Bulk density of sand	(Mg/m³)
	Dia.			In cone & tray opening, m_2	(g)		

I.D. no. of sand storage container: _____

Laboratory compaction test ref. No.(2)						
Lab test position no.						
Client test position no.						
Container no.						
Mass of container (g)						
Mass of soil excavated + container (g)						
Mass of remaining sand (g)						
Nature	Assumed density	Mass of particles retained on 37.5 mm sieve				
Rock (g)	(Mg/m³)					
Concrete (g)	(Mg/m³)					
Brick (g)	(Mg/m³)					
Nature	Assumed density	Cumulative Mass of particles retained on 20 mm sieve				
Rock (g)	(Mg/m³)					
Concrete (g)	(Mg/m³)					
Brick (g)	(Mg/m³)					

Moisture content determination:

Oven I.D. no.			Drying temperature		Balance I.D. no.		
Lab specimen no.							
Container no.							
Cycle of drying	Initial	Date/Time					
		Mass of container m_1 (g)					
		Mass of soil + Container m_2 (g)					
		0.1% of soil mass $(m_2-m_1)/1000$ (g)					
	1	Date/Time					
		Mass of soil + Container (g)					
	2	Date/Time					
		Mass of soil + Container (g)					
		Difference in successive weighing (g)					
	3	Date/Time					
		Mass of soil + Container (g)					
		Difference in successive weighing (g)					
Final(3)		Mass of soil + Container m_3 (g)					

☐ Record Sheet of Drying Activities attached.

Notes:
(1) *Delete as appropriate.
(2) Control sample for Laboratory compaction test was checked in accordance with PWLTM SOL 8.6 by: _____
(3) Final reading as transferred from the last records of drying activities if Record Sheet of Drying Activities, where appropriate.

Remarks:
1. Calculation of test results should refer to the attached computer printout, where appropriate.

Tested by _____ Checked by _____

Name _____ Name _____

Post _____ Post _____

Date _____ Date _____

PWL SOL 8.1(A)W AUG 2003

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-6.2 Field Density Determination message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.2-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.2-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Field Density Determination	Field Density Determination	-	Document for a field density determination test.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract which is related to a field density determination test.
1.2	Test Request Number	Identifier	Mandatory / Once	Test request number, which is an identifier of a test request.
1.3	Test Date	Date	Mandatory / Once	Date on which a test was conducted.
1.4	Test Completion Date	Date	Mandatory / Once	Date on which a test was completed.
1.5	Sand Replacement Method Soil Type	Code	Mandatory / Once Enumeration = 1,2	Type of soil suitable for the sand replacement method used.
1.6	Pouring Cylinder Type	Code	Mandatory / Once Enumeration = S,L	Type of pouring cylinder used in a field density determination test.

Level No.	Data Component	Type	Constraints	Definition
1.7	Geotechnical Engineering Office Test Number	Code	Mandatory / Once Enumeration = 1,2	Test number of Geotechnical Engineering Office with which a field density determination test is in accordance.
1.8	Public Work Laboratory Technical Manual	Code	Mandatory / Once Enumeration = A,B	Technical manual of Public Work Laboratory with which a field density determination test is in accordance.
1.9	Relative Compaction Determination Required Indicator	Boolean	Mandatory / Once	Flag indicating whether determination of relative compaction of fill material in accordance with PWLTM SOL 8.6 is required.
1.10	Weather Environment Condition	Text	Mandatory / Once	Weather and environment condition at time of test.
1.11	Pouring Cylinder Number	Identifier	Mandatory / Once	Pouring cylinder number, which is an identifier of a pouring cylinder.
1.12	Pouring Cylinder Diameter	Measure	Mandatory / Once	Diameter of the pouring cylinder used in a field density determination test.
1.13	Initial Sand Mass	Measure	Mandatory / Once	Mass of sand in cylinder before pouring in a field density determination test.
1.14	Cone Tray Opening Sand Mass	Measure	Mandatory / Once	Mass of sand in cone and tray opening.
1.15	Sand Bulk Density	Measure	Mandatory / Once	Bulk density of sand in a field density determination test.
1.16	Sand Storage Container ID Number	Identifier	Mandatory / Once	ID number of a sand storage container.
1.17	Sand Determination	Sand Determination	Mandatory / Once	Sand determination in a field density determination test.

Level No.	Data Component	Type	Constraints	Definition
1.17.1	Assumed Retaining Rock Density	Measure	Mandatory / Once	Assumed density of rock retained on 37.5 mm sieve.
1.17.2	Assumed Retaining Concrete Density	Measure	Mandatory / Once	Assumed density of concrete retained on 37.5 mm sieve.
1.17.3	Assumed Retaining Brick Density	Measure	Mandatory / Once	Assumed density of brick retained on 37.5 mm sieve.
1.17.4	Assumed Cumulative Retaining Rock Density	Measure	Mandatory / Once	Assumed cumulative density of rock retained on 20 mm sieve.
1.17.5	Assumed Cumulative Retaining Concrete Density	Measure	Mandatory / Once	Assumed cumulative density of concrete retained on 20 mm sieve.
1.17.6	Assumed Cumulative Retaining Brick Density	Measure	Mandatory / Once	Assumed cumulative density of brick retained on 20 mm sieve.
1.17.7	Record	Sand Determination Record	Mandatory / Multiple	Sand determination record.
1.17.7.1	Laboratory Compaction Test Reference Number	Identifier	Mandatory / Once	Reference number of a laboratory compaction test.
1.17.7.2	Laboratory Test Position Number	Identifier	Mandatory / Once	Position number of a laboratory test.
1.17.7.3	Client Test Position Number	Identifier	Mandatory / Once	Position number of a client test.
1.17.7.4	Container Number	Identifier	Mandatory / Once	Container number, which is an identifier of a container, for a sand determination test.
1.17.7.5	Container Mass	Measure	Mandatory / Once	Mass of container in a record of sand determination test.
1.17.7.6	Excavated Soil Including Container Mass	Measure	Mandatory / Once	Mass of soil excavated and container.

Level No.	Data Component	Type	Constraints	Definition
1.17.7.7	Remaining Sand Mass	Measure	Mandatory / Once	Mass of remaining sand.
1.17.7.8	Retaining Rock Mass	Measure	Mandatory / Once	Mass of rock retained on 37.5 mm sieve.
1.17.7.9	Retaining Concrete Mass	Measure	Mandatory / Once	Mass of concrete retained on 37.5 mm sieve.
1.17.7.10	Retaining Brick Mass	Measure	Mandatory / Once	Mass of brick retained on 37.5 mm sieve.
1.17.7.11	Cumulative Retaining Rock mass	Measure	Mandatory / Once	Cumulative mass of rock retained on 20 mm sieve.
1.17.7.12	Cumulative Retaining Concrete Mass	Measure	Mandatory / Once	Cumulative mass of concrete retained on 20 mm sieve.
1.17.7.13	Cumulative Retaining Brick Mass	Measure	Mandatory / Once	Cumulative mass of brick retained on 20 mm sieve.
1.17.8	Laboratory Control Sample Checking Person	Name	Optional / Once	Name of person checking a control sample for laboratory compaction test in accordance with PWLTM SOL 8.6.
1.18	Moisture Content Determination	Sand Moisture Content Determination	Mandatory / Once	Moisture content determination in a field density determination test.
1.18.1	Oven ID Number	Identifier	Mandatory / Once	ID number of an oven.
1.18.2	Drying Temperature	Measure	Mandatory / Once	Drying temperature during a sand moisture content determination test.
1.18.3	Balance ID Number	Identifier	Mandatory / Once	ID Number of a balance.
1.18.4	Drying Cycle Initial Date Time	Date Time	Mandatory / Once	Date and time during which initial stage of cycle of drying took place.

Level No.	Data Component	Type	Constraints	Definition
1.18.5	Drying Cycle First Stage Date Time	Date Time	Mandatory / Once	Date and time during which first stage of cycle of drying took place.
1.18.6	Drying Cycle Second Stage Date Time	Date Time	Mandatory / Once	Date and time during which second stage of cycle of drying took place.
1.18.7	Drying Cycle Third Stage Date Time	Date Time	Mandatory / Once	Date and time during which third stage of cycle of drying took place.
1.18.8	Drying Cycle	Sand Moisture Content Determination Drying Cycle	Mandatory / Multiple	Drying cycle for determining the moisture content of sand.
1.18.8.1	Laboratory Specimen Number	Identifier	Mandatory / Once	Laboratory specimen number for a sand moisture content determination test.
1.18.8.2	Container Number	Identifier	Mandatory / Once	Container number, which is an identifier of a container, for a sand moisture content determination test.
1.18.8.3	Container Mass	Measure	Mandatory / Once	Mass of container in drying cycle of a moisture content determination test.
1.18.8.4	Initial Soil Including Container Mass	Measure	Mandatory / Once	Mass of soil and container during initial stage of cycle of drying.
1.18.8.5	Zero Point One Percent Initial Soil Mass	Measure	Mandatory / Once	0.1% of soil mass during initial stage of cycle of drying.
1.18.8.6	First Stage Soil Including Container Mass	Measure	Mandatory / Once	Mass of soil and container during first stage of cycle of drying.
1.18.8.7	Second Stage Soil Including Container Mass	Measure	Mandatory / Once	Mass of soil and container during second stage of cycle of drying.

Level No.	Data Component	Type	Constraints	Definition
1.18.8.8	Second Stage Successive Weighing Difference	Measure	Mandatory / Once	Difference in successive weighing at second stage of cycle of drying.
1.18.8.9	Third Stage Soil Including Container Mass	Measure	Mandatory / Once	Mass of soil and container during third stage of cycle of drying.
1.18.8.10	Third Stage Successive Weighing Difference	Measure	Mandatory / Once	Difference in successive weighing at third stage of cycle of drying.
1.18.8.11	Final Soil Including Container Mass	Measure	Mandatory / Once	Final mass of soil and container.
1.18.9	Drying Activity Record Sheet Attached Indicator	Boolean	Mandatory / Once	Flag indicating whether a drying activity record sheet is attached.
1.18.10	Attachment File Name	Name	Optional / Once	Name of file attached which is related to the moisture content of sand.
1.19	Testing Person Signature	Signature	Optional / Once	Signature of person conducting a field density determination test.
1.20	Testing Person Signature Date	Date	Optional / Once	Date on which person conducting a field density determination test signs the test report.
1.21	Testing Person Title	Text	Optional / Once	Title of person conducting a field density determination test.
1.22	Testing Person Name	Name	Optional / Once	Name of person conducting a field density determination test.
1.23	Checking Person Signature	Signature	Optional / Once	Signature of person checking a field density determination test.
1.24	Checking Person Signature Date	Date	Optional / Once	Date on which person checking a field density determination test signs the test report.

Level No.	Data Component	Type	Constraints	Definition
1.25	Checking Person Title	Text	Optional / Once	Title of person checking a field density determination test.
1.26	Checking Person Name	Name	Optional / Once	Name of person checking a field density determination test.

The code lists used in this message are listed below:

Data component: Field Density Determination/Sand Replacement Method Soil Type

Code	Description
1	Fine- and medium-grained
2	Fine-, medium- and coarse grained

Data component: Field Density Determination/Pouring Cylinder Type

Code	Description
S	Small
L	Large

Data component: Field Density Determination/Geotechnical Engineering Office Test Number

Code	Description
1	Test No. 9.2.1
2	Test No. 9.2.2

Data component: Field Density Determination/Public Work Laboratory Technical Manual

Code	Description
A	PWLTM SOL 8.1 (a)
B	PWLTM SOL 8.1 (b)

8.1.6.4 WDD-6.3 Soil Compaction Test Summary Message

The following is the Soil Compaction Test Summary Form from the PAH Appendix 7.12:

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APPENDIX 7.12 SOIL COMPACTION TEST SUMMARY FORM

Contract No. _____

Period : _____ to _____

Fill Slope/Road Formation/_____

Date of Test	Location in the Works	Depth below surface (m)	Test Results			Remarks
			+ In-situ dry density (Mg/m^3)	# Max. dry density (Mg/m^3)	Relative Compaction (%)	

Note : + All in-situ densities are measured using the sand replacement method (Test 15(A) or (B), BS 1377) unless otherwise stated
Test 12 Standard Method, BS 1377 unless otherwise stated
* Delete or describe as necessary

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The data structure of the WDD-6.3 Soil Compaction Test Summary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.3-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.3-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.3-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Soil Compaction Test Summary	Soil Compaction Test Summary	-	Document for a soil compaction test summary.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract which is related to a soil compaction test.
1.2	Test Start Date	Date	Mandatory / Once	Date and time during which a soil compaction test starts.
1.3	Test End Date	Date	Mandatory / Once	Date and time during which a soil compaction test ends.
1.4	Test Location Type	Code	Mandatory / Once Enumeration = F,R,O	Type of test location.
1.5	Other Test Location Type Specification	Text	Optional / Once	Specification of other type of test location.
1.6	Record	Soil Compaction Test Record	Mandatory / Multiple	Test record.
1.6.1	Test Date	Date	Mandatory / Once	Date of test.
1.6.2	Works Location	Text	Mandatory / Once	Location in works.

Level No.	Data Component	Type	Constraints	Definition
1.6.3	Underground Depth	Measure	Mandatory / Once	Depth below surface.
1.6.4	Insitu Dry Density	Measure	Mandatory / Once	Dry density of insitu.
1.6.5	Maximum Dry Density	Measure	Mandatory / Once	Maximum dry density of soil.
1.6.6	Relative Compaction	Percent	Mandatory / Once	Relative compaction of soil.
1.6.7	Remark	Text	Optional / Once	Remark related to a soil compaction test record.

The code lists used in this message are listed below:

Data component: Soil Compaction Test Summary/Test Location Type

Code	Description
F	Fill slope
R	Road formation
O	Others (specify)

8.1.6.5 WDD-6.4 Prestressed Tensioning Test Message

The following is the Tensioning Record Form for Prestressed Structure from the PAH Appendix 7.14:

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APPENDIX 7.14 TENSIONING RECORD FORM FOR PRESTRESSED STRUCTURE

Contract No. _____ Member No. _____

Location _____

Date Cast _____ Date of tensioning/transfer _____

Test Cube Record Sketch

	At transfer
Date tested	
Cube strength (i) (ii) (iii)	
Average strength	
Specified strength	

Tensioning Record

Tendon	Strand or Wire	Load (Kg)		Extension (mm)		Anchorage pull-in (mm)	
		Specified	Measured	Calculated	Discrepancy %	Assumed	Measured

Remark:

_____

_____

Recorded by: _____ Designation: _____

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-6.4 Prestressed Tensioning Test message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.4-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.4-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Prestressed Tensioning Test	Prestressed Tensioning Test	-	Document for a tensioning test report for a prestressed structure.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract related to a tensioning test for a prestressed structure.
1.2	Member Number	Identifier	Mandatory / Once	Identifier of member.
1.3	Location	Text	Mandatory / Once	Location of test.
1.4	Cast Date	Date	Mandatory / Once	Date of cast.
1.5	Tensioning Transfer Date	Date	Mandatory / Once	Date of tensioning/transfer.
1.6	Cube Test Date	Date	Mandatory / Once	Date on which a cube is tested.
1.7	Cube Strength	Measure	Mandatory / Multiple	Strength of cube.
1.8	Cube Average Strength	Measure	Mandatory / Once	Average strength of cube.
1.9	Cube Specified Strength	Measure	Mandatory / Once	Specified strength of cube.
1.10	Tensioning Record	Prestressed Tensioning Test Record	Mandatory / Multiple	Test record of a tensioning test.

Level No.	Data Component	Type	Constraints	Definition
1.10.1	Tendon	Text	Mandatory / Once	Type of tendon used.
1.10.2	Strand Wire	Text	Mandatory / Once	Number of strand and wire composing a tendon.
1.10.3	Specified Load	Measure	Mandatory / Once	Load specified in a tensioning test.
1.10.4	Measured Load	Measure	Mandatory / Once	Load measured in a tensioning test.
1.10.5	Calculated Extension	Measure	Mandatory / Once	Extension calculated in a tensioning test.
1.10.6	Extension Discrepancy	Percent	Mandatory / Once	Resulting discrepancy of extension in a tensioning test.
1.10.7	Assumed Anchorage Pullin	Measure	Mandatory / Once	Anchorage pull-in assumed in a tensioning test.
1.10.8	Measured Anchorage Pullin	Measure	Mandatory / Once	Anchorage pull-in measured in a tensioning test.
1.11	Attachment Image	Name	Mandatory / Once	Name of sketch attached to a tensioning test report.
1.12	Remark	Text	Optional / Once	Remark related to a tensioning test for a prestressed structure.
1.13	Recording Person Signature	Signature	Optional / Once	Signature of person recording a tensioning test for a prestressed structure.
1.14	Recording Person Title	Text	Optional / Once	Title of person recording a tensioning test for a prestressed structure.
1.15	Recording Person Name	Name	Optional / Once	Name of person recording a tensioning test for a prestressed structure.

8.1.6.6 WDD-6.5 Drainage Pipeline Water Test Message

The following is the existing Drainage Pipeline Water Test Record Form from the PAH Appendix 7.16:

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APPENDIX 7.16 DRAINAGE PIPELINE WATER TEST RECORD FORM

Contract No. _____

Date _____ Test No. _____

NOTE :

Diameter	(mm)	150	225	300	375	450
Drop permitted per 30 m	(mm)	100	625	48	60	72

Date	Location (refer to attached sketch)		Diameter (mm)	(a) Length (m)	(b) Reading at commencement (mm)	(c) Reading after 20 minutes (mm)	Actual drop per 30 m $\frac{(c)-(b)}{(a)} \times 30$ (mm)	Drop permitted per 30 m (mm)	Result	Remarks (including date of re-test if any)
	From	To								

Received by: _____ Designation: _____

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The data structure of the WDD-6.5 Drainage Pipeline Water Test message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.5-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.5-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.5-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Drainage Pipeline Water Test	Drainage Pipeline Water Test	-	Document for a report of water test of a drainage pipeline.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract related to a drainage pipeline water test.
1.2	Test Date	Date	Mandatory / Once	Date of a drainage pipeline water test.
1.3	Test Number	Identifier	Mandatory / Once	Test number, which is an identifier of a test.
1.4	Record	Drainage Pipeline Water Test Record	Mandatory / Multiple	Test record.
1.4.1	Date	Date	Mandatory / Once	Date of a test record.
1.4.2	Start Location	Text	Mandatory / Once	Location at which a test starts.
1.4.3	End Location	Text	Mandatory / Once	Location at which a test ends.
1.4.4	Pipeline Diameter	Measure	Mandatory / Once	Diameter of pipeline being tested.
1.4.5	Pipeline Length	Measure	Mandatory / Once	Length of pipeline being tested.

Level No.	Data Component	Type	Constraints	Definition
1.4.6	Commencement Reading	Measure	Mandatory / Once	Reading at commencement of test.
1.4.7	Twenty Minute Reading	Measure	Mandatory / Once	Reading after twenty minutes.
1.4.8	Actual Drop Every Thirty Metre	Measure	Mandatory / Once	Actual drop per thirty metres.
1.4.9	Drop Permitted Every Thirty Metre	Measure	Mandatory / Once	Drop permitted per thirty metres.
1.4.10	Result Indicator	Indicator	Mandatory / Once Enumeration = P,F	Result of a test record of a drainage pipeline water test.
1.4.11	Remark	Text	Optional / Once	Remark related to a test record of a drainage pipeline water test.
1.5	Attachment File Name	Name	Optional / Once	Name of file attached to a drainage pipeline water test record.
1.6	Receiving Person Signature	Signature	Optional / Once	Signature of person receiving a report of water test of a drainage pipeline.
1.7	Receiving Person Title	Text	Optional / Once	Title of person receiving a report of water test of a drainage pipeline.
1.8	Receiving Person Name	Name	Optional / Once	Name of person receiving a report of water test of a drainage pipeline.

The code lists used in this message are listed below:

Data component: Drainage Pipeline Water Test/Record/Result Indicator

Code	Description
P	Pass

F	Fail

8.1.6.7 WDD-6.6 Bearing Expansion Joint Performance Record Message

The following is the existing Bearing and Expansion Joint Performance Record Form in the PAH Appendix 7.17:

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APPENDIX 7.17 BEARING AND EXPANSION JOINT PERFORMANCE RECORD FORM

Performance Report on Completion of Works by
Approved Specialist Contractors for Bearings and
Expansion Joints for Highways Structures

1. Contract No. :

2. Project Title :

3. Name of Consultant/A.P./Engineer :

4. Name of Main Contractor :

5. Approx. Value of Bearings (including installation cost) : HK$

6. Approx. Value of Expansion Joints (including installation cost): HK$

7. Details of Bearings :

Name of Manufacturer	Type# & Model No.	Name of Specialist Contractor	No. of Bearings Installed	Location (See Note 1)	Standard of Material	Standard of Installation
Objective Comments : (See Notes 2-4 for Requirement) *(PLEASE USE ADDITIONAL SHEET IF NECESSARY)*						

8. Details of Expansion Joints :

Name of Manufacturer	Type## & Model No.	Name of Specialist Contractor	No. (Length) of Expansion Joints Installed	Location (See Note 1)	Standard of Material	Standard of Installation
Objective Comments : (See Notes 2-4 for Requirement) *(PLEASE USE ADDITIONAL SHEET IF NECESSARY)*						

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Prepared By : _____

Signed : _____

Name : _____

Post : PROJECT ENGINEER/ RESIDENT ENGINEER*
(Delete where appropriate)*

Date : _____

Notes : 1. The location of bearings / expansion joints should be specific (e.g. by using chainage system, movement joint no. or column/pier no.) and cross reference to the as-built record. If possible, separate location plans should be enclosed.

2. Description of movement for expansion joints and bearings performed during defects liability period.

3. The comments should included records of movements over one cycle of seasonal change (quarterly) and permissible movement range.

4. To comment on the performance whether the installed components have been performing as designed.

5. Submission of catalogues for bearings and expansion joints is required.

*Bearing Type	**Joint Type		
• Rocker Bearing	• ACME Trojan TR-300	• Glacier-VSL	
• Roller Bearing	• ACME Trojan TR-400	• Honel-132 FB	
• Knuckle Bearing	• ACME MSB 600	• Honel-132 FS	
• Leaf Bearing	• ASPHAPOL BURIED Joint	• Honel-161 NFS	
• Sliding Bearing	• Britflex BEJ Joint	• Honel-162 NFS	
• Elastomeric (Rubber) Bearing	• BEJ Expansion Joint	• MAGEBA Expansion Joint	
• Pot (Disc)Bearing	• CIPEC Wd80	• MAURER-Modular Expression Joint	
• Strip Bearing	• CIPEC Wd110	• Onflex 25 with Aluminium Panel	
• Laminated Bearing	• CIPEC Wd160	• Onflex 25 with Elaston Panel	
• Plain Pad Bearing	• CIPEC Wd230	• Onflex 35 with Aluminium Panel	
• Mechanical Bearing : Reston	• CIPEC WP180	• Onflex 45 with Aluminium Panel	
• Mechanical Bearing : Maurer-Spherical	• CIPEC W50	• SHO-BOND A-1	
• Mechanical Bearing : Maurer-Pot	• CIPEC W110	• SHO-BOND A-2	
• Mechanical Bearing : PSC Disc (Pot)	• CIPEC W160	• SHO-BOND A-3	
• Elastomeric Bearing :	• CIPEC W200	• SHO-BOND New Cut-off Joint	
• Reinforced Elastomeric	• CIPEC W250	• WABO Modular Joint	
• Elastomeric Sliding	• CIPEC WOSd	• WABO Stripseal System	
• Laminated and Pain Rubber	• Compression Sealant	• WSF Series of Expansion Joint	
• Lasto Elastomeric Bearing	• Compressive Rubber	• WSL-VSL	
• Rubber-Metal-Technik (M) SDN BHD	• Felspan Expansion Joint	• ZEBRAFLEX Bridge Joint	
• Other (please specify)	• FREYSSI P30 Joint	• Other (please specify)	
	• FREYSSI P50 Joint		
	• FREYSSI P80 Joint		
	• Glacier GBM Series Expansion Joint		

(Please contact CHE/B&S, HyD for further information if necessary)

The data structure of the WDD-6.6 Bearing Expansion Joint Performance Record message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.6-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-6.6-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-6.6-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Bearing Expansion Joint Performance	Bearing Expansion Joint Performance	-	Document for a performance report for bearing and expansion joint.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract related to a performance report on bearing and expansion joint.
1.2	Project Title	Text	Mandatory / Once	Title of project related to a performance report on bearing and expansion joint.
1.3	Consultant	Name	Mandatory / Once	Name of consultant related to a performance report on bearing and expansion joint.
1.4	Main Contractor	Name	Mandatory / Once	Name of main contractor related to a performance report on bearing and expansion joint.
1.5	Bearing Value	Amount	Mandatory / Once	Approximate value of bearing including installation cost.
1.6	Expansion Joint Value	Amount	Mandatory / Once	Approximate value of expansion joint including installation cost.
1.7	Bearing	Bearing	Mandatory / Multiple	Information on bearing of which performance is reported.
1.7.1	Manufacturer	Name	Mandatory / Once	Name of manufacturer of a bearing.
1.7.2	Type Model Number	Text	Mandatory / Once	Type and model number of a bearing.

Level No.	Data Component	Type	Constraints	Definition
1.7.3	Specialist Contractor	Name	Mandatory / Once	Name of specialist contractor for a bearing.
1.7.4	Installed Count	Count	Mandatory / Once	Number of bearings installed.
1.7.5	Installed Location	Text	Mandatory / Once	Location at which a bearing is installed.
1.7.6	Material Standard	Text	Mandatory / Once	Material standard of a bearing.
1.7.7	Installation Standard	Text	Mandatory / Once	Installation standard of a bearing.
1.8	Bearing Objective Comment	Text	Mandatory / Once	Objective comment for bearing.
1.9	Expansion Joint	Expansion Joint	Mandatory / Multiple	Information on expansion joint of which performance is reported.
1.9.1	Manufacturer	Name	Mandatory / Once	Name of manufacturer of an expansion joint.
1.9.2	Type Model Number	Text	Mandatory / Once	Type and model number of an expansion joint.
1.9.3	Specialist Contractor	Name	Mandatory / Once	Name of specialist contractor for an expansion joint.
1.9.4	Installed Count Length	Text	Mandatory / Once	Number of expansion joints installed and length at which an expansion joint is installed.
1.9.5	Installed Location	Text	Mandatory / Once	Location at which an expansion joint is installed.
1.9.6	Material Standard	Text	Mandatory / Once	Material standard of an expansion joint.

Level No.	Data Component	Type	Constraints	Definition
1.9.7	Installation Standard	Text	Mandatory / Once	Installation standard of an expansion joint.
1.10	Expansion Joint Object Comment	Text	Mandatory / Once	Objective comment for expansion joint.
1.11	Signing Person Signature	Signature	Optional / Once	Signature of person signing a performance report for bearing and expansion joint.
1.12	Signing Person Signature Date	Date	Optional / Once	Date on which person signing a performance report for bearing and expansion joint signs the report.
1.13	Signing Person Title	Code	Optional / Once Enumeration = P,R	Title of person signing a performance report for bearing and expansion joint.
1.14	Signing Person Name	Name	Optional / Once	Name of person signing a performance report for bearing and expansion joint.
1.15	Preparing Person Name	Name	Optional / Once	Name of person preparing a performance report for bearing and expansion joint.

The code lists used in this message are listed below:

Data component: Bearing Expansion Joint Performance/Preparing Person Title

Code	Description
P	Project Engineer
R	Resident Engineer

8.1.7 WDD-7 Site Instruction

WDD-7 defines the site instructions issued in construction contract. It also includes the drawings and sketches as needed for a site instruction.

WDD-7 contains one message:

1. WDD-7.0 Site Instruction

8.1.7.1 WDD-7.0 Site Instruction Message

The following is the existing Site Instruction in the PAH Appendix 7.17:

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APPENDIX 7.5 SITE INSTRUCTION FORM

SITE INSTRUCTION	
CONTRACT NO.	
FROM	TO
SITE INSTRUCTION NO.	DATE
FILE REF.	COPIES

Drawing/sketch attached : _____

_____
Engineer's Representative

Received by :

_____
Contractor's Representative

Date : _____ Time : _____

NB : Top copy - White - File Record
Duplicate - Yellow - Contractor
Triplicate - Green - Remain in book

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-7.0 Site Instruction message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-7.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-7.0-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Site Instruction	Site Instruction	-	Document for a site instruction.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of a contract for which a site instruction is prepared.
1.2	Sender	Name	Mandatory / Once	Name of sender of a site instruction.
1.3	Recipient	Name	Mandatory / Once	Name of recipient of a site instruction.
1.4	Site Instruction Number	Identifier	Mandatory / Once	Site instruction number, which is an identifier of a site instruction.
1.5	Date	Date	Mandatory / Once	Date on which a site instruction is submitted.
1.6	File Reference	Identifier	Mandatory / Once	File reference of a file which keeps a site instruction.
1.7	Copy Count	Count	Mandatory / Once	Number of copies of a site instruction.
1.8	Instruction	Text	Mandatory / Once	Instruction given out in a site instruction.
1.9	Attachment File Name	Name	Optional / Multiple	Name of file, for example, drawing, sketch, etc. attached to a site instruction.
1.10	Engineer Representative Signature	Signature	Optional / Once	Signature of a engineer's representative.
1.11	Engineer Representative Name	Name	Optional / Once	Name of a engineer's representative.

Level No.	Data Component	Type	Constraints	Definition
1.12	Contractor Representative Signature	Signature	Optional / Once	Signature of a contractor's representative.
1.13	Contractor Representative Receipt Date Time	Date Time	Optional / Once	Date and time during which a contractor's representative receives a site instruction.
1.14	Contractor Representative Name	Name	Optional / Once	Name of a contractor's representative.

8.1.8 WDD-8 Site Diary

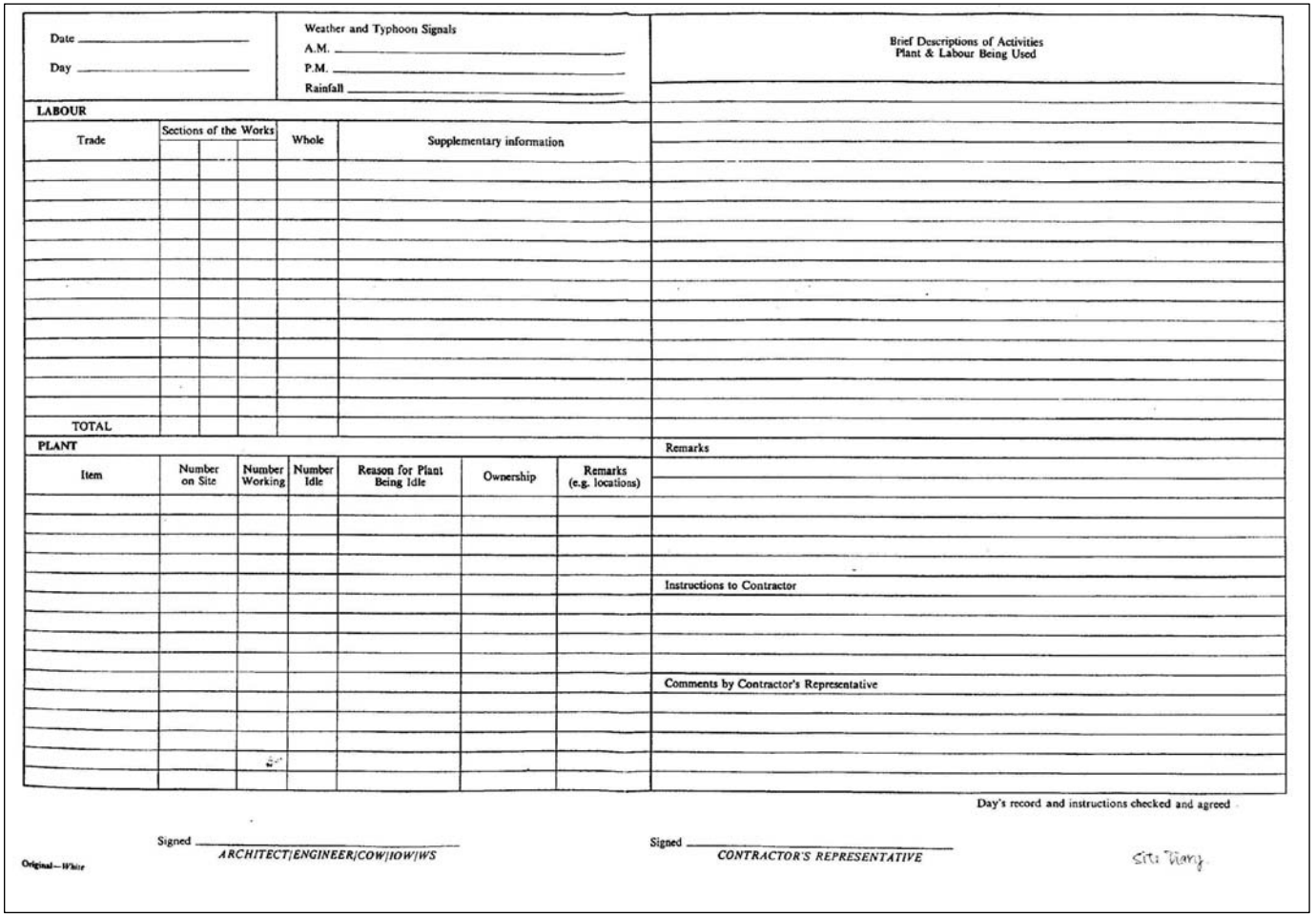
WDD-8 covers the site diary messages for construction contracts. It is a diary of the construction works and contains an accurate and concise record of the progress of work, plant and labour employed, weather and site conditions, and any occurrences, which affect the progress or quality of the work, including the extent to which they are affected.

WDD-8 contains the following messages:

1. WDD-8.0 Site Diary
2. WDD-8.1 Inclement Weather Report
3. WDD-8.2 Daywork Daily Record
4. WDD-8.3 Daywork Monthly Summary

8.1.8.1 WDD-8.0 Site Diary Message

The following is the site diary format commonly used in the industry:



Date _____
Day _____

Weather and Typhoon Signals
A.M. _____
P.M. _____
Rainfall _____

Brief Descriptions of Activities
Plant & Labour Being Used

LABOUR

Trade	Sections of the Works			Whole	Supplementary information
TOTAL					

PLANT

Item	Number on Site	Number Working	Number Idle	Reason for Plant Being Idle	Ownership	Remarks (e.g. locations)

Remarks

Instructions to Contractor

Comments by Contractor's Representative

Day's record and instructions checked and agreed

Signed _____
ARCHITECT/ENGINEER/COW/IOW/IWS

Signed _____
CONTRACTOR'S REPRESENTATIVE

Original—White

Site Diary

The data structure of the WDD-8.0 Site Diary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-8.0-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Site Diary	Site Diary	-	Document for a site diary.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site.
1.2	Contract Title	Text	Mandatory / Once	Title of contract of construction site.
1.3	Date	Date	Mandatory / Once	Date for which a site diary is prepared.
1.4	Day	Text	Mandatory / Once	Day of week for which a site diary is prepared.
1.5	Morning Weather	Text	Optional / Once	Weather condition in the morning.
1.6	Afternoon Weather	Text	Optional / Once	Weather condition in the afternoon.
1.7	Rainfall	Measure	Optional / Once	Rainfall recorded in the day.
1.8	Labour Record	Labour Site Diary Record	Optional / Once	Record of labour of a site diary.
1.8.1	First Works Section	Text	Mandatory / Once	Description of first works section.
1.8.2	Second Works Section	Text	Mandatory / Once	Description of second works section.

Level No.	Data Component	Type	Constraints	Definition
1.8.3	Third Works Section	Text	Mandatory / Once	Description of third works section.
1.8.4	Labour Count	Trade Labour Count	Mandatory / Multiple	Information on number of workers of a trade working in the construction site.
1.8.4.1	Trade	Text	Mandatory / Once	Trade of labour.
1.8.4.2	First Works Section Count	Count	Mandatory / Once	Number of workers of the trade working at the first works section.
1.8.4.3	Second Works Section Count	Count	Mandatory / Once	Number of workers of the trade working at the second works section.
1.8.4.4	Third Works Section Count	Count	Mandatory / Once	Number of workers of the trade working at the third works section.
1.8.4.5	Whole Count	Count	Mandatory / Once	Total number of workers of the trade working in the construction site.
1.8.4.6	Supplementary Information	Text	Optional / Once	Supplementary information for the labour count of the trade.
1.8.5	Total First Works Section Count	Count	Mandatory / Once	Total number of workers of different trades working at the first section of works.
1.8.6	Total Second Works Section Count	Count	Mandatory / Once	Total number of workers of different trades working at the second section of works.
1.8.7	Total Third Works Sectioon Count	Count	Mandatory / Once	Total number of workers of different trades working at the third section of works.
1.8.8	Total Whole Count	Count	Mandatory / Once	Total number of workers of different trades working in the construction site.
1.8.9	Total Count Supplementary Information	Text	Optional / Once	Supplementary information for the total labour count.

Level No.	Data Component	Type	Constraints	Definition
1.9	Plant Record	Plant Site Diary Record	Optional / Multiple	Record of plant of a site diary.
1.9.1	Item Number	Identifier	Mandatory / Once	Item number of plant.
1.9.2	Total Count	Count	Mandatory / Once	Total number of plants.
1.9.3	Working Count	Count	Mandatory / Once	Number of plants working.
1.9.4	Idle Count	Count	Mandatory / Once	Number of plants being idle.
1.9.5	Idle Reason	Text	Optional / Once	Reason for plant being idle.
1.9.6	Ownership	Text	Mandatory / Once	Ownership of plant.
1.9.7	Remark	Text	Optional / Once	Remark related to a plant site diary record.
1.10	Activity Description	Text	Optional / Once	Brief description of activity, plant and labour being used.
1.11	Remark	Text	Optional / Once	Remark related to a site diary.
1.12	Contractor Instruction	Text	Optional / Once	Instruction to contractor.
1.13	Contractor Representative Comment	Text	Optional / Once	Comment by contractor's representative.
1.14	Architect Engineer COW IOW WS Signature	Signature	Optional / Once	Signature of architect/engineer/COW/IOW/WS.

Level No.	Data Component	Type	Constraints	Definition
1.15	Contractor Representative Signature	Signature	Optional / Once	Signature of contractor's signature.

8.1.8.2 WDD-8.1 Inclement Weather Report Message

The following is the existing Inclement Weather Report Form in the PAH Appendix 7.4:

7.135 Rev. 7-4

APPENDIX 7.4 INCLEMENT WEATHER REPORT FORM

Contract No. _____ Date :

1. Rainfall recorded by the nearest raingauge maintained by the Hong Kong Observatory within 24 hours ending 12:00 midnight : _____ mm

2. Records of weather conditions and Works affected (see below for legends):

Time	7	8	a.m. 9	10	11	noon 12	1	2	3	p.m. 4	5	6	7
Weather condition													
Works affected													

3. Number of workers : _____ (a.m.) / _____ (p.m.)

4. Proposed activities : _____

5. Actual activities : _____

6. Was the work on the critical path of the works programme? YES / NO

7. Was the Contractor ready to work had weather conditions been favourable? YES / NO

8. Were delays caused by any other reasons? YES / NO
(If YES, state the reasons in "Remarks")

9. Did the Contractor take any measures to minimize the effects of the inclement weather? YES / NO

10. How long did it take to tidy up afterwards? _____ hours / days

11. Remarks :

_____

_____

	No. of day(s)	Initial
Contractor's claim		
Recommendation		

Prepared by : _____ Countersigned by : _____

Designation : _____ Designation : _____

Legend :

Weather conditions
L - Light rain
H - Heavy rain
S - Strong wind
O - Others to be specified

Works affected
A - Slightly affected
B - Seriously affected
C - All works stopped

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-8.1 Inclement Weather Report is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-8.1-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Inclement Weather Report	Inclement Weather Report	-	Document for an inclement weather report.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site.
1.2	Date	Date	Mandatory / Once	Date for which inclement weather is reported.
1.3	Recorded Rainfall	Measure	Mandatory / Once	Rainfall recorded by the nearest raingauge maintained by the Hong Kong Observatory within twenty-four hours ending 12:00 midnight.
1.4	Inclement Weather	Inclement Weather	Mandatory / Once	Record of inclement weather that affected works.
1.4.1	Record	Inclement Weather Record	Mandatory / Multiple	Record of inclement weather.
1.4.1.1	Time	Time	Mandatory / Once	Time for which inclement weather is recorded.
1.4.1.2	Weather Condition	Code	Mandatory / Once Enumeration = L,H,S,O	Code representing an inclement weather condition.

Level No.	Data Component	Type	Constraints	Definition
1.4.1.3	Affected Works	Code	Mandatory / Once Enumeration = A,B,C	Code representing works affected
1.4.2	Other Weather Condition Specification	Text	Optional / Once	Specification of other inclement weather condition.
1.5	Morning Worker Count	Count	Mandatory / Once	Number of workers working in the morning.
1.6	Afternoon Worker Count	Count	Mandatory / Once	Number of workers working in the afternoon.
1.7	Proposed Activity	Text	Mandatory / Once	Proposed activity for the day.
1.8	Actual Activity	Text	Mandatory / Once	Actual activity done during the day.
1.9	Critical Path Work Indicator	Boolean	Mandatory / Once	Flag indicating whether the work was on the critical path of the works programme.
1.10	Favourable Weather Condition Ready Work Indicator	Boolean	Mandatory / Once	Flag indicating whether contractor was ready to work if the weather condition was favourable.
1.11	Other Reason Cause Delay Indicator	Boolean	Mandatory / Once	Flag indicating whether delay was caused by other reasons.
1.12	Minimizing Measure Taken Indicator	Boolean	Mandatory / Once	Flag indicating whether contractor took any measures to minimize the effect of the inclement weather condition.
1.13	Tidy Duration	Measure	Mandatory / Once	Time duration taken to tidy up afterwards.

Level No.	Data Component	Type	Constraints	Definition
1.14	Tidy Duration Unit Code	Code	Mandatory / Once Enumeration = h,day	Code representing the unit of the time duration taken to tidy up.
1.15	Remark	Text	Optional / Once	Remark related to an inclement weather report.
1.16	Contractor Claim	Measure	Optional / Once	Number of days claimed by contractor.
1.17	Contractor Signature	Signature	Optional / Once	Signature of contractor.
1.18	Recommended Claim	Measure	Optional / Once	Number of days recommended to be claimed.
1.19	Recommending Person Signature	Signature	Optional / Once	Signature of recommending person.
1.20	Preparing Person Signature	Signature	Optional / Once	Signature of person preparing an inclement weather report.
1.21	Preparing Person Title	Text	Optional / Once	Title of person preparing an inclement weather report.
1.22	Preparing Person Name	Name	Optional / Once	Name of person preparing an inclement weather report.
1.23	Countersigning Person Signature	Signature	Optional / Once	Signature of person countersigning an inclement weather report.
1.24	Countersigning Person Title	Text	Optional / Once	Title of person countersigning an inclement weather report.
1.25	Countersigning Person Name	Name	Optional / Once	Name of person countersigning an inclement weather report.

The code lists used in this message are listed below:

Data component: Inclement Weather Report/Inclement Weather Record/Weather Condition

Code	Description
L	Light rain
H	Heavy rain
S	Strong wind
O	Others (specify)

Data component: Inclement Weather Report/Inclement Weather Record/Affected Works

Code	Description
A	Slightly affected
B	Seriously affected
C	All works stopped

Data component: Inclement Weather Report/Tidy Duration Unit Code

Code	Description
h	Hour
day	Day

8.1.8.3 WDD-8.2 Daywork Daily Record Message

The following is the existing Dayworks Daily Record Form in the PAH Appendix 7.6:

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APPENDIX 7.6 DAYWORKS DAILY RECORD FORM

Contract No. _____ Site Instruction No. _____
Date _____ Sheet No. _____

Description and location of work _____
_____

LABOUR

B.O. Item	Trade of Labour	Total No.	Normal Working Time			Overtime		
			Working time	Hours per man	Total hours	Working time	Hours per man	Total hours

PLANT

B.Q. Item	Description of Plant	Total No.	Working time	Hours per plant	Additional Hours (for plant specially brought on Site)	Total hours

MATERIAL

B.Q. Item	Description of Material	Unit	Quantity

Record agreed by : _____ Submitted by : _____
Designation : _____ Designation : _____

N.B. Top copy – White – Daily Record
Duplicate – Yellow – Contractor's copy
Triplicate – Green – I.P. File copy

With Amendment No. 3/2005 (July 2005)

The data structure of the WDD-8.2 Dayworks Daily Record message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.2-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.2-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-8.2-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Daywork Daily Record	Daywork Daily Record	-	Document for a daywork daily record.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site.
1.2	Date	Date	Mandatory / Once	Date for which daywork daily record is prepared.
1.3	Site Instruction Number	Identifier	Mandatory / Once	Site instruction number, which is an identifier of a site instruction.
1.4	Document Number	Identifier	Mandatory / Once	Identifier of a daywork daily record.
1.5	Work Description Location	Text	Mandatory / Once	Description and location of work.
1.6	Labour Record	Labour Daywork Daily Record	Mandatory / Multiple	Record of labour in a daywork daily record.
1.6.1	BQ Item Number	Identifier	Mandatory / Once	Bills of Quantities item number of labour.
1.6.2	Labour Trade	Text	Mandatory / Once	Trade of labour.
1.6.3	Total Labour Count	Count	Mandatory / Once	Total number of labour.
1.6.4	Normal Working Time	Labour Working Time	Mandatory / Once	Normal working time of labour.

Level No.	Data Component	Type	Constraints	Definition
1.6.4.1	Working Time	Measure	Mandatory / Once	Time duration worked by labour.
1.6.4.2	Actual Work Hour	Quantity	Mandatory / Once	Actual number of man-hours worked by labour.
1.6.4.3	Total Hour	Quantity	Mandatory / Once	Total number of working hours of labour.
1.6.5	Overtime	Labour Working Time	Optional / Once	Overtime of labour.
1.7	Plant Record	Plant Daywork Daily Record	Mandatory / Multiple	Record of plant in a daywork daily record.
1.7.1	BQ Item Number	Identifier	Mandatory / Once	Bills of Quantities item number of plant.
1.7.2	Plant Description	Text	Mandatory / Once	Description of a plant.
1.7.3	Total Plant Count	Count	Mandatory / Once	Total number of plants.
1.7.4	Working Time	Measure	Mandatory / Once	Time duration worked by plant.
1.7.5	Actual Work Hour	Quantity	Mandatory / Once	Actual number of hours worked by plant.
1.7.6	Additional Hour	Quantity	Optional / Once	Additional number of hours worked by plant specially brought on site.
1.7.7	Total Hour	Quantity	Mandatory / Once	Total number of working hours of plant.
1.8	Material Record	Material Daywork Daily Record	Mandatory / Multiple	Record of material in a daywork daily record.
1.8.1	BQ Item Number	Identifier	Mandatory / Once	Bills of Quantities item number of material.

Level No.	Data Component	Type	Constraints	Definition
1.8.2	Material Description	Text	Mandatory / Once	Description of a material.
1.8.3	Quantity	Quantity	Mandatory / Once	Quantity of material.
1.8.4	Unit Code	Code	Mandatory / Once Enumeration = mm,m,mm2,m2,ha,m3,kg,t,nr,h,wk,mth,d,set,nr-mth,nr-set,m2-day,veh-wk,tel-mth,sum,%	The unit code of the quantity of material.
1.9	Agreeing Person Signature	Signature	Optional / Once	Signature of person agreeing a daywork daily record.
1.10	Agreeing Person Title	Text	Optional / Once	Title of person agreeing a daywork daily record.
1.11	Agreeing Person Name	Name	Optional / Once	Name of person agreeing a daywork daily record.
1.12	Submitting Person Signature	Signature	Optional / Once	Signature of person submitting a daywork daily record.
1.13	Submitting Person Title	Text	Optional / Once	Title of person submitting a daywork daily record.
1.14	Submitting Person Name	Name	Optional / Once	Name of person submitting a daywork daily record.

The code lists used in this message are listed below:

Data component: Daywork Daily Record/Material Record/Unit Code

Code	Description
mm	Millimetre
m	Metre
mm2	Square millimetre
m2	Square metre
ha	Hectare
m3	Cubic metre
kg	Kilogram
t	Tonne
nr	Number
h	Hour
wk	Week
mth	Month
d	Day
set	Set
nr-mth	Number month
nr-set	Number set
m2-day	Square metre day
veh-wk	Vehicle week
tel-mth	Telephone-month
sum	Sum
%	Percentage

8.1.8.4 WDD-8.3 Daywork Monthly Summary Message

The following is the existing Dayworks Monthly Summary Form in the PAH Appendix 7.7:

Rev. 7-4

7.142

APPENDIX 7.7 DAYWORKS MONTHLY SUMMARY FORM

Contract No. _____ Month _____ Dayworks Order No. _____ Amount included in Payment Certificate No. _____

Description and location of work _____

_____ Certified by _____ Approved by _____

Designation: _____ Designation: _____

LABOUR		Daily Hours																													Total	Rate	Amount	
Item No.	Date / Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Hours	$	$	C

TOTAL LABOUR COST

PLANT		Daily Hours																													Total	Rate	Amount	
Item No.	Date / Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Hours	$	$	C

TOTAL PLANT COST

MATERIAL		Description	Amount	
Item No.	Date		$	C

TOTAL MATERIAL COST

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7.141

With Amendment No. 1/2005 (April 2005)

The data structure of the WDD-8.3 Daywork Monthly Summary message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-8.3-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-8.3-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Daywork Monthly Summary	Daywork Monthly Summary	-	Document for a daywork monthly summary.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of contract of construction site.
1.2	Month	Numeric	Mandatory / Once Min. Incl. = 1, Max. Incl. = 12	Month of a daywork monthly summary.
1.3	Year	Numeric	Mandatory / Once Tot. Digits = 4	Year of a daywork monthly summary.
1.4	Daywork Order Number	Identifier	Mandatory / Once	Daywork order number, which is an identifier of a daywork order.
1.5	Work Description Location	Text	Mandatory / Once	Description and location of work.
1.6	Payment Certificate Number	Identifier	Mandatory / Once	Payment certificate number, which is an identifier of a certificate by which payment is settled.
1.7	Certifying Person Signature	Signature	Optional / Once	Signature of person certifying a daywork monthly summary.
1.8	Certifying Person Title	Text	Optional / Once	Title of person certifying a daywork monthly summary.

Level No.	Data Component	Type	Constraints	Definition
1.9	Certifying Person Name	Name	Optional / Once	Name of person certifying a daywork monthly summary.
1.10	Approving Person Signature	Signature	Optional / Once	Signature of person approving a daywork monthly summary.
1.11	Approving Person Title	Text	Optional / Once	Title of person approving a daywork monthly summary.
1.12	Approving Person Name	Name	Optional / Once	Name of person approving a daywork monthly summary.
1.13	Labour Monthly Summary	Item Monthly Summary	Mandatory / Once	Monthly summary of labour.
1.13.1	Record	Item Monthly Summary Record	Mandatory / Multiple	Monthly summary record of an item.
1.13.1.1	Item Number	Identifier	Mandatory / Once	Bills of Quantities item number.
1.13.1.2	Class	Text	Mandatory / Once	Class of the item.
1.13.1.3	First Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the first day of a month.
1.13.1.4	Second Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the second day of a month.
1.13.1.5	Third Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the third day of a month.
1.13.1.6	Fourth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the fourth day of a month.
1.13.1.7	Fifth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the fifth day of a month.
1.13.1.8	Sixth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the sixth day of a month.

Level No.	Data Component	Type	Constraints	Definition
1.13.1.9	Seventh Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the seventh day of a month.
1.13.1.10	Eighth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the eighth day of a month.
1.13.1.11	Ninth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the ninth day of a month.
1.13.1.12	Tenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the tenth day of a month.
1.13.1.13	Eleventh Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the eleventh day of a month.
1.13.1.14	Twelfth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twelfth day of a month.
1.13.1.15	Thirteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the thirteenth day of a month.
1.13.1.16	Fourteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the fourteenth day of a month.
1.13.1.17	Fifteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the fifteenth day of a month.
1.13.1.18	Sixteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the sixteenth day of a month.
1.13.1.19	Seventeenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the seventeenth day of a month.
1.13.1.20	Eighteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the eighteenth day of a month.
1.13.1.21	Nineteenth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the nineteenth day of a month.
1.13.1.22	Twentieth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twentieth day of a month.

Level No.	Data Component	Type	Constraints	Definition
1.13.1.23	Twenty First Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty first day of a month.
1.13.1.24	Twenty Second Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty second day of a month.
1.13.1.25	Twenty Third Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty third day of a month.
1.13.1.26	Twenty Fourth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty fourth day of a month.
1.13.1.27	Twenty Fifth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty fifth day of a month.
1.13.1.28	Twenty Sixth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty sixth day of a month.
1.13.1.29	Twenty Seventh Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty seventh day of a month.
1.13.1.30	Twenty Eighth Day Hour	Quantity	Mandatory / Once	Number of hours that an item is utilized on the twenty eighth day of a month.
1.13.1.31	Twenty Ninth Day Hour	Quantity	Optional / Once	Number of hours that an item is utilized on the twenty ninth day of a month.
1.13.1.32	Thirtieth Day Hour	Quantity	Optional / Once	Number of hours that an item is utilized on the thirtieth day of a month.
1.13.1.33	Thirty First Day Hour	Quantity	Optional / Once	Number of hours that an item is utilized on the thirty first day of a month.
1.13.1.34	Total Hour	Quantity	Mandatory / Once	Total number of hours that an item is utilized.
1.13.1.35	Rate	Rate	Mandatory / Once	Rate based on which the cost of an item is calculated.
1.13.1.36	Amount	Daywork Monthly Summary Amount	Mandatory / Once	Amount of cost of an item.

Level No.	Data Component	Type	Constraints	Definition
1.13.1.36.1	Dollar	Amount	Optional / Once	Dollar amount specified at a daywork monthly summary.
1.13.1.36.2	Cent	Amount	Optional / Once	Cent amount specified at a daywork monthly summary.
1.13.2	Total Cost	Amount	Mandatory / Once	Total cost of an item.
1.14	Plant Monthly Summary	Item Monthly Summary	Mandatory / Once	Monthly summary of plant.
1.15	Material Monthly Summary	Material Monthly Summary	Mandatory / Once	Monthly summary of material.
1.15.1	Record	Material Monthly Summary Record	Mandatory / Multiple	Monthly summary record of material.
1.15.1.1	Item Number	Identifier	Mandatory / Once	Bills of Quantities item number of a material.
1.15.1.2	Date	Date	Mandatory / Once	Date on which a material is utilized.
1.15.1.3	Description	Text	Mandatory / Once	Description of material.
1.15.1.4	Amount	Daywork Monthly Summary Amount	Mandatory / Once	Amount of cost of material.
1.15.2	Total Cost	Amount	Mandatory / Once	Total cost of material.

8.1.9 WDD-9 Site Investigation Result

WDD-9 defines the Site Investigation Results for others' assess to the relevant detailed information in Geotechnical Engineering Office.

WDD-9 contains one message:

1. WDD-9.0 Site Investigation Result

8.1.9.1 WDD-9.0 Site Investigation Result Message

Sample site investigation result documents are analyzed. Most documents are structured like a general correspondence with a cover page and investigation results documented in unstructured format. The investigation results are modeled as attachment files. More than a general correspondence, a site investigation result document usually comes with some specific information, e.g. date and time to conduct the test, the investigation job number, investigation purpose, and investigation person.

Some investigation results are related to borehole information, which is in a more structured format. The borehole information will be covered in WDD-20 to be delivered in WPIS Batch No. 2.

The data structure of the WDD-9.0 Site Investigation Result message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-9.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-9.0-1.0.tplt . These are also detailed in the Release Notes of Library of WPIS Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Site Investigation Result	Site Investigation Result	-	Document for a site investigation result.
1.1	Contract Number	Identifier	Mandatory / Once	Identifier of a contract, for which a site investigation is conducted.
1.2	Site Investigation Job Number	Identifier	Mandatory / Once	Job number of a site investigation.
1.3	Site Investigation Location	Text	Mandatory / Once	Location at which a site investigation is conducted.
1.4	Investigation Purpose	Text	Mandatory / Once	Purpose for carrying out a site investigation.
1.5	Result	Text	Mandatory / Once	Textual description of result of a site investigation.

Level No.	Data Component	Type	Constraints	Definition
1.6	Attachment File Name	Name	Optional / Multiple	Name of file, for example, drawing, sketch, etc. attached to a site investigation result.
1.7	Investigating Person Designation	Site Investigation Result Designation	Optional / Once	Information on person who carries out a site investigation.
1.7.1	Digital Signature	Signature	Optional / Once	Signature of a person signing on a site investigation result.
1.7.2	Signature Date Time	Date Time	Mandatory / Once	Date and time during which a person signs on a site investigation result.
1.7.3	Title	Text	Mandatory / Once	Title of person signing on a site investigation result.
1.7.4	Name	Name	Mandatory / Once	Name of person signing on a site investigation result.
1.8	Other Designation	Site Investigation Result Designation	Optional / Multiple	Information on person who signs on a site investigation result.

8.1.10 WDD-10 CAD Standard, GIS Standard

8.1.10.1 WDD-10.0 CAD Standard

WDD-10.0	CAD Standard
Method	Reference to existing standard

The existing CAD Standard for Works Project (CSWP) referenced in Environment, Transport and Works Bureau, Technical Circular (Works) No. 38/2002: Computer-Aided-Drafting Standard for Works Projects provides a comprehensive foundation for CAD Standard and it is recommended include CSWP as the basis for this data sub-domain. After consulting existing CSWP Working Group members, users and CAD solution vendors such as Bentley and AutoDesk, the following findings have been observed:

AutoCAD 2000 and 2002 are currently supported by the CSWP Standard. Newer versions of AutoCAD including 2004, 2005 and 2006 would have no impact on the CSWP Standard since they are all based on similar 2D modeling technology. The current CSWP SI is compatible with the above AutoCAD versions up to 2005. Since AutoCAD 2006 is not a major upgrade, the CSWP SI should work with AutoCAD 2006 but further testing would be required to confirm compatibility.

Microstation SE & J are currently being supported by the CSWP Standard and the CSWP SI. Microstation V8 and subsequent releases are major upgrade of the Microstation product line. One of the significant improvements is the elimination of the restriction of 63 layers in previous versions of Microstation. Thus there is no limit to the number of layers to be included in both AutoCAD and Microstation drawings.

With AutoCAD 2007, a 3D modeling engine has been incorporated. Thus, the fundamental gap of 2D format in AutoCAD verse 3D format in Microstation is eliminated. Furthermore, AutoCAD 2007 and Microstation V8 both provide more robust file exchange mechanism of the DWG and DGN formats.

On the other hand, the CSWP SI for Microstation would need to significant upgrade to work with Microstation V8 and later versions. Since Bentley has indicated a stable product roadmap for its newer generation products, the SI upgrade would be suffice to support future versions of Microstation software with minor maintenance effort.

AutoCAD 2007 and subsequent versions have a different user interface compared to previous versions, it is necessary to evaluate the impact of current CSWP SI running on AutoCAD 2007, and determine modification (branching of a new SI version of AutoCAD 2007 and subsequent versions) would be required.

Since the latest versions of AutoCAD and Microstation support native 3D drawing, for 3D CAD, the current CSWP naming convention can still apply without modification to the existing CSWP standard since it already supports 3D Microstation drawings.

Object-Oriented CAD (OOCAD) is a new idea for modeling physical objects such as building components that are represented as objects containing the physical geometry as well as other relevant attributes. As for OOCAD products such as AutoCAD Revit, utilize a totally different modeling paradigm, i.e. Building Information Modeling (BIM). Thus the CSWP standard would not be applicable directly. For example, the 1000 symbols in CSWP cannot apply to BIM models directly since the way how annotations are handled in BIM software is very different from CAD software. As a recommendation, further evaluation of the technology, on-going discussion and direction would be needed from the CSWP Working Group before a new standard to support BIM could be finalized.

During the consultation exercise with the user community and vendors of the industry, CAD software packages are at a cross road at the moment, as there is a growing trend for construction firms to utilize BIM solution in private-sector projects.

8.1.10.2 Recommendation

8.1.10.2.1.1 CSWP Standard

a) Update CSWP standard to apply to AutoCAD 2004 & 2007 generations, and Microstation V8/XM generations.
b) Remove the 63 layers limitations in CSWP for new versions of AutoCAD and Microstation software.
c) No additional change to CSWP standard to support the 3D engines of AutoCAD and Microstation software

8.1.10.2.1.2 CSWP Standard Interface Tool

a) Validate existing AutoCAD SI Tool for AutoCAD 2006
b) Consider implementation of new SI Tool for AutoCAD 2007/2008 for 32-bit AutoCAD. This would allow the CSWP standard to be forward-compatible with future releases of AutoCAD in the coming several years. This would also allow the CSWP Working Group to determine the future roadmap of the CSWP standard.
c) Consider implement new Microstation SI Tool for Microstation V8/XM generation.

8.1.10.2.1.3 OOCAD Support:

a) CSWP Working Group Committee to monitor the development of BIM solution, and evaluate a time table for BIM to be incorporated into the current CSWP standard.
b) A continuous evaluation and monitoring effort within CSWP Working Group to analyze impact on the CSWP standard based on the future trends of AutoCAD, Microstation and BIM software to determine a strategic plan to align with the emerging trend within the industry for the convergence of CAD, 3D CAD and OOCAD technologies.

8.1.10.3 WDD-10.1 GIS Standard

WDD-10.1	GIS Standard
Method	Reference to existing standard

The existing Data Alignment Measures (DAM) Standard (DAMS) provides a comprehensive foundation for the integration and exchange of specific geospatial data GIS Standard and it is recommended to include DAM Standard as the basis for this data sub-domain.

8.1.10.4 Recommendation

The Final Report on Implementation of Data Alignment Measures for the Alignment of Planning, Lands and Public Works Data (DAM Final Report) and its related documents should be referenced for any GIS related activities (http://www.devb-plb.gov.hk/eng/publication/dam.htm). Volume 2F of the DAM Final Report or its latest version provides practice note which advises on the inventory of the GIS Maps currently prepared by various map producing Government Departments and the corresponding GIS platforms including software and versions on which various symbols are supported.

8.1.11 WDD-11 Request for Information

The request for information messages in this data domain is based on the current standard submission layouts used among construction consultants for contract's request for information as well as the engineer's response to the contractor's request for information.

The WDD-11 data domain contains the following two messages:

9. WDD-11.0 Contractor's Request for Information (RFI), refers to section 8.1.11.1 for more details.
10. WDD-11.1 Engineer's Response to the Contractor's Request for Information (RFI), refers to section 8.1.11.2 for more details.

8.1.11.1 WDD-11.0 Contractor's Request for Information Message

WDD-11.0	Contractor's Request for Information (RFI)
Method	XML-based data standard

The following is a generic Contractor's Request for Information Submission:

Contract No.:	
Contract Title:	
Contractor's Request for Information	
To:	
Request Ref. No.:	Date:
Subject:	
Specification Reference:	
Drawing Reference:	
Information Requested:	
Attachment: Yes/No	
This information is required on/before	
Prepared by:	
From:	Acknowledge Receipt with Date:
Name:	
Signature:	
Date:	

The data structure of the WDD-11.0 Request for Information message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-11.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-11.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contractor Request Information	Contractor Request Information	-	Contactor's Request for Information
1.1	Contract Number	Identifier	Mandatory / Once	Contract number
1.2	Contract Title	Text	Optional / Once	Contract title
1.3	To Recipient	Text	Mandatory / Once	To Recipient
1.4	Request Date	Date	Mandatory / Once	Request date
1.5	Request Reference Number	Identifier	Mandatory / Once	Request reference number
1.6	Request Subject	Text	Mandatory / Once	Request subject
1.7	Specification Reference	Text	Optional / Once	Specification reference
1.8	Drawing Reference	Text	Optional / Once	Drawing reference
1.9	Attachment Indicator	Boolean	Mandatory / Once	Signal to indicate the record has file attachment
1.10	Attachment Detail	Attachment Item	Optional / Multiple	File attachment information
1.10.1	Attachment File Name	Name	Mandatory / Once	Attachment file name
1.10.2	Attachment Description	Text	Optional / Once	Attachment description

Level No.	Data Component	Type	Constraints	Definition
1.11	Requested Information	Text	Mandatory / Once	Requested information content
1.12	Required On Or Before Date	Date	Optional / Once	Required on or before a specific date
1.13	Prepared By	Name	Optional / Once	Prepared By
1.14	Request From	Text	Mandatory / Once	From Requestor
1.15	Request Person Name	Name	Mandatory / Once	Request person name
1.16	Request Person Signature	Signature	Optional / Once	Request person digital signature
1.17	Request Person Sign Date	Date	Mandatory / Once	Request person sign date
1.18	Acknowledge Receipt Person Name	Name	Optional / Once	Acknowledge receipt person name
1.19	Acknowledge Receipt Person Title	Text	Optional / Once	Acknowledge receipt person title
1.20	Acknowledge Receipt Person Signature	Signature	Optional / Once	Acknowledge receipt person digital signature
1.21	Acknowledge Receipt Date	Date	Optional / Once	Acknowledge receipt date

8.1.11.2 WDD-11.1 Engineer's Response to Contractor's Request for Information Message

WDD-11.1	Engineer's Response to the Contractor's Request for Information (RFI)
Method	XML-based data standard

The following is a generic Engineer's Response to the Contractor's Request for Information Submission:

Contract No.:

Contract Title:

ENGINEER'S RESPONSE
TO THE CONTRACTOR'S REQUEST FOR INFORMATION (RFI)

Contractor Request Ref. No.:

Subject:

Specification Reference:

Drawing Reference:

Our Reference:

Information Requested by Contractor:

Engineer's Response:

Please be advised that your query of this RFI is considered as:
☐ A) Query is responded as above.
☐ B) Query not justifiable, information can be found in Contract Specification.
☐ C) Query not justifiable, information can be found in Drawings.
☐ D) Query not justifiable, information as queried is in fact self-sufficient.
☐ E) Query not justifiable as query described is unclear and/or irrelevant.
☐ F) Query not justifiable; please refer to my comments as described above.

Signed by:

Distribution

Name	Info	Comments	Action

Date:

The data structure of the WDD-11.1 Engineer's Response to the Contractor's Request for Information message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-11.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-11.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-11.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Engineer Response Information	Engineer Response Information	-	Engineer's response to the contractor's request for information (RFI)
1.1	Contract Number	Identifier	Mandatory / Once	Contract number
1.2	Contract Title	Text	Optional / Once	Contract title
1.3	Contractor Request Reference Number	Identifier	Mandatory / Once	Contract request reference number
1.4	Subject	Text	Mandatory / Once	Subject
1.5	Specification Reference	Text	Optional / Once	Specification reference
1.6	Drawing Reference	Text	Optional / Once	Drawing reference
1.7	Our Reference	Identifier	Mandatory / Once	Our reference number
1.8	Information Requested By Contractor	Text	Mandatory / Once	Information requested by contractor
1.9	Engineer Response	Text	Mandatory / Once	Engineer's response

Level No.	Data Component	Type	Constraints	Definition
1.10	R F I Code	Code	Optional / Once Len. = 1, Enumeration = A,B,C,D,E,F	RFI Code
1.11	Distribution List	Distribution	Optional / Multiple	Distribution List
1.11.1	Person	Name	Optional / Once	Distribution person name
1.11.2	Title	Text	Optional / Once	Distribution person title
1.11.3	Information Indicator	Boolean	Optional / Once	Distribution information indicator
1.11.4	Comments	Text	Optional / Once	Distribution comments
1.11.5	Action	Text	Optional / Once	Distribution action
1.12	Response Person	Name	Mandatory / Once	Response person
1.13	Response Date	Date	Mandatory / Once	Response Date
1.14	Response Signature	Signature	Optional / Once	Response Signature

The code list used in this message is listed below:

Data component: RFI Code

Code	Description

A	Query is responded as above.
B	Query not justifiable, information can be found in Contract Specification.
C	Query not justifiable, information can be found in Drawings.
D	Query not justifiable, information as queried is in fact self-sufficient.
E	Query not justifiable, as query described is unclear and/or irrelevant.
F	Query not justifiable; please refer to my comments as described above.

8.1.12 WDD-12 Test Requests

The Test Requests messages in this data domain are based on the current submission layouts for various information and test request forms for Civil Engineering and Development Department (CEDD) laboratory testing.

The WDD-12 data domain contains the following nineteen messages:

1. WDD-12.0 Form 2511 – Request Form for Insitu Soil Testing, refers to section 8.1.12.1 for more details.
2. WDD-12.1 Form 2112 – Request for Bituminous Materials Testing, refers to section 8.1.12.2 for more details.
3. WDD-12.2 Form 2113 – Request for Aggregate Testing, refers to section 8.1.12.3 for more details.
4. WDD-12.3 Form 2317 - Request for Paving Block Testing, refers to section 8.1.12.4 for more details.
5. WDD-12.4 Form 2403 – Request for Steel Bar Testing, refers to section 8.1.12.5 for more details.
6. WDD-12.5 Form 2404 – Request for Miscellaneous Steel Sample Testing, refers to section 8.1.12.6 for more details.
7. WDD-12.6 Form 2405 – Request for Cast Iron Drainage Goods Testing, refers to section 8.1.12.7 for more details.
8. WDD-12.7 Form 2201 – Request for Sample Collection and Testing Request for Chemical Testing Services for Concrete, refers to section 8.1.12.8 for more details.
9. WDD-12.8 Form 2202 – Request Form for Sample Collection and Testing Request for Chemical Testing Services for Soil, refers to section 8.1.12.9 for more details.
10. WDD-12.9 Form 2316 – Request Form for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory, refers to section 8.1.12.10 for more details.
11. WDD-12.10 Form 2319 – Request Form for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks, Granite and Artificial Granite Pavers, refers to section 8.1.12.11 for more details.
12. WDD-12.11 Form 2407 – Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL), refers to section 8.1.12.12 for more details.
13. WDD-12.12 Form 2408 – Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory, refers to section 8.1.12.13 for more details.
14. WDD-12.13 Form 2410 – Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL), refers to section 8.1.12.14 for more details.

15. WDD-12.14 Form 2007 – Registration Form for Testing of Construction Materials, refers to section 8.1.12.15 for more details.
16. WDD-12.15 Form 2017 – Request Form for Calibration / Checking of Equipment, refers to section 8.1.12.16 for more details.
17. WDD-12.16 Form 2409 – Request Form for Steel Fabric Sample Collection Service (For PWCL), refers to section 8.1.12.17 for more details.
18. WDD-12.17 Form 2509 – Request Form for Soil Testing For Checking of Compliance with Specification Requirements, refers to section 8.1.12.18 for more details.
19. WDD-12.18 Form 2510 – Request Form for Laboratory Soil Testing, refers to section 8.1.12.19 for more details.

8.1.12.1 WDD-12.0 Form 2511 – Request for Insitu Soil Testing Message

WDD-12.0	Request Form for Insitu Soil Testing - Form 2511
Method	XML-based data standard

The following is a copy of the two-page Form 2511 – Request for Insitu Soil Testing (Nov 2006) from CEDD Web site:

Page 1

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TEST REQUEST FOR INSITU SOIL TESTING
(Please read guidance notes attached prior to completion of this form)

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Test requested (Select appropriate box)	Description of test	PWLTM No.
☐ **Test No. 9.2.1** of GEO Report No. 36 (1994 Edition).	Determination of In-situ Bulk Density and In-situ Dry Density of soil by sand replacement method suitable for fine and medium grained soil (with small pouring cylinder).	SOL 8.1(a)
☐ **Test Method 11.1** of Geospec 3.		GSP 11.1
☐ **Test No. 9.2.2** of GEO Report No. 36 (1994 Edition).	Determination of In-situ Bulk Density and In-situ Dry Density of soil by sand replacement method suitable for fine-, medium- and coarse-grained soil (with large pouring cylinder).	SOL 8.1(b)
☐ **Test Method 11.2** of Geospec 3.		GSP 11.2
☐ **Appendix 6.3** of GS for Civil Engineering Works 1992.	Determination of In-situ Bulk Density and In-situ Dry Density of soil by Nuclear Density Gauge.	SOL 8.3
☐ **Test Method 11.3** of Geospec 3.		GSP11.3
☐ **BS1377:Part 9:1990 with modification.**	Determination of in-situ California Bearing Ratio.	SOL 8.4
☐ ☐ **Clause 6.68** / ☐ **Clause 9.44** of GS for Civil Engineering Works 1992.	Determination of Relative Compaction of fill or sub-base materials.	SOL 8.6
☐ **Test Method 11.4** of Geospec3.		GSP 11.4
☐ **Test No.** ☐ **4.3.3 A** / ☐ **4.3.3 B** / ☐ **4.3.4 A** / ☐ **4.3.4 B** of GEO Report 36 (1994 Edition).	Additional Proctor Test, where appropriate.	SOL 4.1
☐ **Test 13 of BS1377:1975 with modification.**		SOL 4.2(b)
☐ **Test Method** ☐ **10.1** / ☐ **10.2** / ☐ **10.3** / ☐ **10.4** / ☐ **10.5** / ☐ **10.6** / ☐ **10.7** / ☐ **10.8** of Geospec 3.		GSP 10.1 to 10.8
☐ Others (Please specify) _____		

Sample Details:-
Sampling/Testing location(1) : _____
Location of borrow area of fill (if known)(2) : _____
Location plan of test position (Plan reference no. : _____) ☐ was/ ☐was not provided by client.

Test position No. (3)	Grid references/Chainage	Level	Offset	Additional information (4)

Other information/requirement: -
Oven-drying temperature of sample shall be: ☐ 45±5°C / ☐ 105±5°C / ☐ Microwave Oven.
Preliminary test result ☐ is/ ☐ is not required. If require, please state Fax no.:- _____.

Testing location will be shown on site by (5) :-

Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax no. : _____
Date : _____

Test(s) requested by :-

Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax no. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

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Page 2

Guidance Notes on Completion of Request Form for In-situ Soil Testing

General Guidance

A separate form should be completed for samples from each sampling/testing location. Each form should be signed and dated. It is recommended that the request form be vetted and signed by a qualified professional engineer responsible for checking of compliance (preferably the Engineer's Representative for the Contract or equivalent). The client should arrange for his staff to show the testing staff the correct test positions on site. Please note that the client who has made the request for testing is responsible for ensuring that the test samples/positions have been selected in accordance with the specification requirements and are representative, and that the samples are delivered to the testing laboratory by personnel of appropriate level, using secure means, with clear indelible labels/markings on the samples for identification to ensure traceability.

Notes

(1) Please give location identifiable from a drawing or figure (with grid references or chainage) for the contract/job, e.g. samples taken from or tests to be carried out at positions at level X mPD, chainage Y of embankment/fill platform/slope as shown on drawing/figure no. Z.

(2) Please give grid reference or chainage limits for borrow area if available. If fill is from within the site, please indicate "Fill from within site". If crushed rock is used for filling, please give name of quarry if known.

(3) For traceability, each sample/test position should have a unique identification number.

(4) Where required by the testing standard, additional information required for the test, e.g. on soil type (viz. colluvial, residual, saprolitic, alluvial or marine soil) and oven-drying temperature, shall be provided to the testing laboratory.

(5) The person who will be showing the testing staff the test positions on site should be nominated by the engineer who signs the form.

(6) If certificates are to be collected, any number of persons may be nominated by providing separate details on Form C Eng D (GEO) 2007. Certificates will not be released to persons not registered with the laboratory unless they can provide a letter of authorization. Certificates not collected within two weeks will be sent by post to the client's Head Office.

C Eng D (GEO) 2511 (Sheet 2 of 2) Nov 2006

The data structure of the WDD-12.0 Form 2511 – Request for Insitu Soil Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Test Request for Insitu Soil Testing	Test Request for Insitu Soil Testing	-	Test Request for Insitu Soil Testing Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested Info	Optional / Once	Test Requested Content

Level No.	Data Component	Type	Constraints	Definition
1.3.1	Determination of Soil With Small Pouring Cylinder Content Info	Determination of Soil With Small Pouring Cylinder Content	Optional / Once	Determination of Soil With Small Pouring Cylinder Content Info
1.3.1.1	Test Requested Name	Code	Mandatory / Once Enumeration = T9.2.1,TM11.1	Test Requested Name
1.3.1.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.2	Determination of Soil With Large Pouring Cylinder Content Info	Determination of Soil With Large Pouring Cylinder Content	Optional / Once	Determination of Soil With Large Pouring Cylinder Content Info
1.3.2.1	Test Requested Name	Code	Mandatory / Once Enumeration = T9.2.2,TM11.2	Test Requested Name
1.3.2.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.3	Determination of Soil By Nuclear Density Gauge Content Info	Determination of Soil By Nuclear Density Gauge Content	Optional / Once	Determination of Soil By Nuclear Density Gauge Content Info

Level No.	Data Component	Type	Constraints	Definition
1.3.3.1	Test Requested Name	Code	Mandatory / Once Enumeration = TA6.3,TM11.3	Test Requested Name
1.3.3.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.4	Determination of In-situ California Bearing Ratio Content Info	Determination of In-situ California Bearing Ratio Content	Optional / Once	Determination of In-situ California Bearing Ratio Content Info
1.3.4.1	Test Requested Name	Code	Mandatory / Once Enumeration = T1377	Test Requested Name
1.3.4.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.5	Determination of Relative Compaction Content Info	Determination of Relative Compaction Content	Optional / Once	Determination of Relative Compaction Content Info
1.3.5.1	Test Requested Name	Code	Mandatory / Once Enumeration = T6.68,T9.44,TM11.4	Test Requested Name

Level No.	Data Component	Type	Constraints	Definition
1.3.5.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.6	Additional Proctor Test Content Info	Additional Proctor Test Content	Optional / Once	Additional Proctor Test Content Info
1.3.6.1	Test Requested Name	Code	Mandatory / Once Enumeration = T4.3.3A,T4.3.3B,T4.3.4A,T4.3.4B,T13,TM10.1,TM10.2,TM10.3,TM10.4,TM10.5,TM10.6,TM10.7,TM10.8	Test Requested Name
1.3.6.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3	PWLTM Number
1.3.7	Others	Boolean	Optional / Once	Others
1.3.8	Other Description	Text	Optional / Once	Other Description
1.4	Sample Details Content	Sample Details Info	Optional / Once	Testing sample detail information

Level No.	Data Component	Type	Constraints	Definition
1.4.1	Sampling or Testing Location	Text	Optional / Once	Sampling / Testing Location
1.4.2	Location of Borrow Area	Text	Optional / Once	Location of Borrow Area
1.4.3	Location Plan Reference Number	Identifier	Optional / Once	Location Plan Reference Number
1.4.4	Plan Provided	Boolean	Optional / Once	Plan provided by client or not indicator
1.4.5	Sample Details Record Content	Sample Details Record	Optional / Multiple	Detail sample testing record information
1.4.5.1	Test Position Number	Identifier	Optional / Once	Test Position Number
1.4.5.2	Grid References	Text	Optional / Once	Grid References / Chainage
1.4.5.3	Level	Quantity	Optional / Once	Level
1.4.5.4	Offset	Quantity	Optional / Once	Offset
1.4.5.5	Additional Information	Text	Optional / Once	Additional Information
1.5	Other Info Content	Other Info	Mandatory / Once	Other Information / Requirement Content
1.5.1	Oven Dry Temperature	Code	Optional / Once Enumeration = L,H,M	Oven-drying temperature of sample
1.5.2	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is required

Level No.	Data Component	Type	Constraints	Definition
1.5.3	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is required
1.6	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.6.1	Shown by Signature	Signature	Optional / Once	Shown by Signature
1.6.2	Shown by Name	Name	Mandatory / Once	Shown by Name
1.6.3	Shown by Post	Text	Optional / Once	Shown by Post
1.6.4	Shown by Telephone Number	Text	Optional / Once	Shown by Telephone Number
1.6.5	Shown by Fax Number	Text	Optional / Once	Shown by Fax Number
1.6.6	Shown by Date	Date	Mandatory / Once	Shown by Date
1.6.7	Requested by Signature	Signature	Optional / Once	Requested by Signature
1.6.8	Requested by Name	Name	Mandatory / Once	Requested by Name
1.6.9	Requested by Post	Text	Mandatory / Once	Requested by Post
1.6.10	Requested by Telephone Number	Text	Optional / Once	Requested by Telephone Number
1.6.11	Requested by Fax Number	Text	Optional / Once	Requested by Fax Number
1.6.12	Requested by Date	Date	Mandatory / Once	Requested by Date

Level No.	Data Component	Type	Constraints	Definition
1.7	To Be Delivered Content	To Be Delivered	Optional / Once	Test certificate delivery information
1.7.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.7.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.7.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code lists used in this message are listed below:

Data component: Test Requested Content.Determination of Soil With Small Pouring Cylinder Content Info.Test Requested Name

Code	Description
T9.2.1	Test 9.2.1 of GEO Report No. 36
TM11.1	Test Method 11.1 of Geospec 3

Data component: Test Requested Content.Determination of Soil With Small Pouring Cylinder Content Info.P W L T M Number

Code	Description
1	SOL 8.1(a)
2	GSP 11.1

Data component: Test Requested Content.Determination of Soil With Large Pouring Cylinder Content Info.Test Requested Name

Code	Description
T9.2.2	Test 9.2.2 of GEO Report No. 36
TM11.2	Test Method 11.2 of Geospec 3

Data component: Test Requested Content.Determination of Soil With Large Pouring Cylinder Content Info.P W L T M Number

Code	Description
1	SOL 8.1(b)
2	GSP 11.2

Data component: Test Requested Content.Determination of Soil By Nuclear Density Gauge Content Info.Test Requested Name

Code	Description
TA6.3	GS for Civil Engineering Works 1992 Appendix 6.3
TM11.3	Test Method 11.3 of Geospec 3

Data component: Test Requested Content.Determination of Soil By Nuclear Density Gauge Content Info.P W L T M Number

Code	Description
1	SOL 8.3
2	GSP 11.3

Data component: Test Requested Content.Determination of In-situ California Bearing Ratio Content Info.Test Requested Name

Code	Description
T1377	Test BS1377:Part 9:1990 with modification

Data component: Test Requested Content.Determination of In-situ California Bearing Ratio Content Info.P W L T M Number

Code	Description
1	SOL 8.4

Data component: Test Requested Content.Determination of Relative Compaction Content Info.Test Requested Name

Code	Description
T6.68	GS for Civil Engineering Works 1992 Clause 6.68
T9.44	GS for Civil Engineering Works 1992 Clause 9.44
TM11.4	Test Method 11.4 of Geospec 3

Data component: Test Requested Content.Determination of Relative Compaction Content Info.P W L T M Number

Code	Description
1	SOL 8.6
2	GSP 11.4

Data component: Test Requested Content.Additional Proctor Test Content Info.Test Requested Name

Code	Description
T4.3.3A	Test 4.3.3 A of GEO Report No. 36
T4.3.3B	Test 4.3.3 B of GEO Report No. 36
T4.3.4A	Test 4.3.4 A of GEO Report No. 36
T4.3.4B	Test 4.3.4 B of GEO Report No. 36
T13	Test 13 of BS1377:Part 9:1975 with modification
TM10.1	Test Method 10.1 of Geospec 3
TM10.2	Test Method 10.2 of Geospec 3
TM10.3	Test Method 10.3 of Geospec 3
TM10.4	Test Method 10.4 of Geospec 3
TM10.5	Test Method 10.5 of Geospec 3
TM10.6	Test Method 10.6 of Geospec 3
TM10.7	Test Method 10.7 of Geospec 3
TM10.8	Test Method 10.8 of Geospec 3

Data component: Test Requested Content.Additional Proctor Test Content Info.P W L T M Number

Code	Description
1	SOL 4.1
2	SOL 4.2(b)
3	GSP 10.1 to 10.8

Data component: Other Info Content.Oven Dry Temperature

Code	Description
L	45+/-5 degree

H	105+/-5 degree
M	Microwave Oven

8.1.12.2 WDD-12.1 Form 2112 – Request for Bituminous Materials Testing Message

WDD-12.1	Request for Bituminous Materials Testing - Form 2112
Method	XML-based data standard

The following is a copy of the Form 2112 – Request for Bituminous Materials Testing (Mar 2007) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR BITUMINOUS MATERIALS

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Test requested (Select appropriate box)	Description of test	PWLTM No.
☐ ASTM D2172-88, Method A	Determination of bitumen content of bituminous paving materials by centrifuge extractor	BIT 3.1
☐ ASTM D2172-95, Method A		BIT 3.9 ☐ (a) / ☐ (b)
☐ ASTM C117-87 Procedure B and C136- 84a	Determination of aggregate grading of bituminous paving materials with the following modifications:- (a) BS sieves are used instead of ASTM sieves; (b) The sample mass is smaller than ASTM requirement; (c) The manner of hand sieving is in accordance with BS812:Section 103.1:1985	BIT 3.2
☐ ASTM C117-95 Procedure B and C136- 96a		BIT 3.10
☐ ASTM D2726-88	Determination of bulk specific gravity and density of compacted dense bituminous paving materials using saturated surface-dry specimens for specimens that contain moisture	BIT 3.4
☐ ASTM D2726-96a		BIT 3.11
☐ ASTM D2041-78	Determination of theoretical maximum S.G. (Rice's S.G.) of bituminous paving materials using Type A container, weighing in water method	BIT 3.5
☐ ASTM D2041-95 with modification: The manometer is replaced by a vacuum gauge		BIT 3.12 ☐ (a) / ☐ (b)
☐ ASTM D3203-88	Determination of air void content of compacted bituminous paving materials	BIT 3.6
☐ ASTM D3203-94		BIT 3.13
☐ ASTM D6307-98	Determination of bitumen content of bituminous paving materials by ignition method	BIT 3.14
☐ ASTM D2172-95, Method A and ASTM D6307-98	Determination of total binder content of polymer modified bituminous paving materials in accordance with Appendix 9.2 of the Particular Specification for the contract	BIT 3.15
☐ Others (please specify) _____		

Sample details:-
Type of mixture : _____ ; HyD mix ref. : _____
Laying location : _____
Weight of bulk sample : _____ kg ; Date of sampling & laying : _____
Sample No. : _____

Other information/requirement:-
Presence of ☐ polymer / ☐ hydrated lime / ☐ fiber: ☐ Yes / ☐ No
For the bulk sample, please indicate whether the sample was obtained in accordance with ASTM D979: ☐ Yes/ ☐ No / ☐ Uncertain
For the core sample, please indicate where reference Rice's S.G. should be obtained from:-
(e.g. Test Request No., Sample No., etc.) _____
Preliminary test results ☐ is / ☐ is not required. If required, please state Fax No.: _____

Notes :- (1) To be completed by a project works supervisor grade officer or above.
(2) To be completed by a project inspectorate grade officer or above (or his delegate).

Sample(s) delivery supervised by (1):-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax No. : _____
Date : _____

Test(s) requested by (2):-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax No. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2112 Mar 2007

The data structure of the WDD-12.1 Form 2112 – Request for Bituminous Materials Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Bituminous Materials	Testing Request for Bituminous Materials	-	Testing Request For Bituminous Materials Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested	Optional / Once	Test Requested Content
1.3.1	Record D 2172	Test Requested D 2172	Optional / Once	Record of Test Requested D2172
1.3.1.1	Test Requested Name	Code	Mandatory / Once Enumeration = D2172-88,D2172-95	Test Requested Name
1.3.1.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3	PWLTM Number
1.3.2	Record C 117	Test Requested C 117	Optional / Once	Record of Test Requested C117
1.3.2.1	Test Requested Name	Code	Mandatory / Once Enumeration = C117-87,C117-95	Test Requested Name
1.3.2.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number

Level No.	Data Component	Type	Constraints	Definition
1.3.3	Record D 2726	Test Requested D 2726	Optional / Once	Record of Test Requested D2726
1.3.3.1	Test Requested Name	Code	Mandatory / Once Enumeration = D2726-88,D2726-96a	Test Requested Name
1.3.3.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.4	Record D 2041	Test Requested D 2041	Optional / Once	Record of Test Requested D2041
1.3.4.1	Test Requested Name	Code	Mandatory / Once Enumeration = D2041-78,D2041-95	Test Requested Name
1.3.4.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3	PWLTM Number
1.3.5	Record D 3203	Test Requested D 3203	Optional / Once	Record of Test Requested D3203

Level No.	Data Component	Type	Constraints	Definition
1.3.5.1	Test Requested Name	Code	Mandatory / Once Enumeration = D3203-88,D3203-94	Test Requested Name
1.3.5.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.6	Record D 6307	Test Requested D 6307	Optional / Once	Record of Test Requested D6307
1.3.6.1	Test Requested Name	Code	Mandatory / Once Enumeration = D6307-98	Test Requested Name
1.3.6.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.7	Record D 2172 D 6307	Test Requested D 2172 D 6307	Optional / Once	Record of Test Requested D2172 D6307
1.3.7.1	Test Requested Name	Code	Mandatory / Once Enumeration = D2172-D6307	Test Requested Name

Level No.	Data Component	Type	Constraints	Definition
1.3.7.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.8	Others	Boolean	Optional / Once	Others
1.3.9	Other Description	Text	Optional / Once	Other Description
1.4	Sample Details Content	Sample Details Info	Optional / Once	Testing sample detail information
1.4.1	Type Of Mixture	Text	Optional / Once	Type Of Mixture
1.4.2	Hy D Mix Reference	Text	Optional / Once	HyD Mix Reference
1.4.3	Laying Location	Text	Optional / Once	Laying Location
1.4.4	Weight of Bulk Sample	Measure	Optional / Once	Weight Of Bulk Sample
1.4.5	Date Of Sampling And Laying	Date	Optional / Once	Date Of Sampling And Laying
1.4.6	Sample Number	Identifier	Optional / Once	Sample Number
1.5	Other Info Content	Other Info	Mandatory / Once	Other Information / Requirement Content
1.5.1	Presence Of Type	Code	Mandatory / Once Enumeration = P,H,F	Presence Of Type

Level No.	Data Component	Type	Constraints	Definition
1.5.2	Presence Of Result	Boolean	Mandatory / Once	Result of Presence Of Type (Yes / No)
1.5.3	A S T M D 979	Code	Mandatory / Once Enumeration = Y,N,U	Sample obtained in accordance with ASTM D979 indicator
1.5.4	Rice S G Reference Number	Identifier	Mandatory / Once	Rice S. G. Reference Number
1.5.5	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required
1.5.6	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.6	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.6.1	Delivery Supervised by Signature	Signature	Optional / Once	Delivery Supervised by Signature
1.6.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name
1.6.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post / Affiliation
1.6.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number
1.6.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.6.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.6.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature

Level No.	Data Component	Type	Constraints	Definition
1.6.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.6.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post / Affiliation
1.6.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.6.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.6.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.7	To Be Delivered Content	To Be Delivered	Optional / Once	Test certificate delivery information
1.7.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.7.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.7.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code lists used in this message are listed below:

Data component: Test Requested Content.Record D 2172.Test Request Name

Code	Description
D2172-88	ASTM D2172-88, Method A
D2172-95	ASTM D2172-95, Method A

Data component: Test Requested Content.Record D 2172.P W L T M Number

Code	Description

1	BIT 3.1
2	BIT 3.9(a)
3	BIT 3.9(b)

Data component: Test Requested Content.Record C 117.Test Request Name

Code	Description
C117-87	ASTM C117-87, Procedure B and C136-84a
C117-95	ASTM C117-95, Procedure B and C136-96a

Data component: Test Requested Content.Record C 117.P W L T M Number

Code	Description
1	BIT 3.2
2	BIT 3.10

Data component: Test Requested Content.Record D 2726.Test Request Name

Code	Description
D2726-88	ASTM D2726-88
D2726-96a	ASTM D2726-96a

Data component: Test Requested Content.Record D 2726.P W L T M Number

Code	Description
1	BIT 3.4
2	BIT 3.11

Data component: Test Requested Content.Record D 2041.Test Request Name

Code	Description
D2041-78	ASTM D2041-78
D2041-95	ASTM D2041-95

Data component: Test Requested Content. Record D 2041.P W L T M Number

Code	Description
1	BIT 3.5
2	BIT 3.12a
3	BIT 3.12b

Data component: Test Requested Content.Record D 3203.Test Request Name

Code	Description
D3203-88	ASTM D3203-88
D3203-94	ASTM D3203-94

Data component: Test Requested Content. Record D 3203.P W L T M Number

Code	Description
1	BIT 3.6
2	BIT 3.13

Data component: Test Requested Content.Record D 6307.Test Request Name

Code	Description
D6307-98	ASTM D6307-98

Data component: Test Requested Content. Record D 3203.P W L T M Number

Code	Description
1	BIT 3.14

Data component: Test Requested Content.Record D 2172 D 6307.Test Request Name

Code	Description
D2172-D6307	ASTM D2172-95, Method A and ASTM D6307-98

Data component: Test Requested Content. Record D 2172 D 6307.P W L T M Number

Code	Description
1	BIT 3.15

Data component: Presence of Type

Code	Description
P	Polymer
H	Hydrated Lime
F	Fiber

Data component: ASTMD 979

Code	Description
Y	Yes
N	No
U	Uncertain

8.1.12.3 WDD-12.2 Form 2113 – Request for Aggregate Testing Message

WDD-12.2	Request for Aggregate Testing - Form 2113
Method	XML-based data standard

The following is a copy of the Form 2113 – Request for Aggregate Testing (Mar 2007) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR AGGREGATES

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Test requested (Select appropriate box)	Description of test	PWLTM No.
☐ BS812:Sect.103.1:1985 (1)	Determination of particle size distribution of aggregate by sieve analysis	AGG 1.1
☐ BS812:Part 1:1975:Section 7.2	Determination of clay, slit & dust content in fine or coarse aggregate by decantation	AGG 1.4
☐ BS812:Section 105.1:1989	Determination of aggregate particle shape (flakiness index)	AGG 1.5
☐ BS812:Section 105.2:1990	Determination of aggregate particle shape (elongation index)	AGG 1.6
☐ BS812:Part 2:1975:Section 5.3	Determination of relative densities & water absorption of aggregate with normal size larger than 10mm using a wire mesh basket	AGG 2.1(a)
☐ BS812:Part 2:1975:Section 5.5	Determination of relative densities & water absorption of aggregate with normal size not larger than 10mm using a pycnometer	AGG 2.1(b)
☐ Appendix 5.2 of GS for Civil Engineering Works 1992	Determination of the compaction faction value of aggregate for granular bed	AGG 2.3
☐ BS812:Part 112:1990	Determination of aggregate impact value (☐ dry / ☐ soaked)	AGG 3.1
☐ BS812:Part 110:1990	Determination of aggregate crushing value (☐ standard size / ☐ non-standard size greater than standard)	AGG 3.2
☐ BS812:Part 111:1990	Determination of aggregate ten per cent fines value (☐ dry / ☐ soaked; ☐ standard size / ☐ non-standard size greater than standard)	AGG 3.3
☐ Other (please specify) _____		

Sample details :-
Sampling location : _____
Source of material : _____
Samples taken by : _____

Type of material	Client sample No.	Sample mass	Remarks

Other information/requirement:-
Please indicate whether the sample was obtained in accordance with BS812:Part 102:1989: ☐ Yes / ☐ No / ☐ Uncertain
Certificate of sampling available: ☐ Yes / ☐ No
Preliminary test result by fax ☐ is / ☐ is not required. If required, please state Fax No.: _____

Notes :- (1) Please state whether the sieves recommended in BS812:Sect.103.1:1985 are to be used in the test (if not, please specify).
(2) To be completed by a project works supervisor grade officer or above.
(3) To be completed by a project inspectorate grade officer or above (or his delegate).

Sample(s) delivery supervised by (2) :-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax No. : _____
Date : _____

Test(s) requested by (3) :-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax No. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2113 Mar 2007

The data structure of the WDD-12.2 Form 2113 – Request for Aggregate Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.2-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.2-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Aggregates Testing	Testing Request for Aggregates Testing	-	Testing Request For Aggregates Testing Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested	Optional / Once	Test Requested Content
1.3.1	Test Requested Name	Code	Optional / Multiple Enumeration = 1.1,1.4,1.5,1.6, 2.1a,2.1b,2.3,3.1,3.2,3.3	Test Requested Name
1.3.2	BS 812 Part 112 Aggregate Impact Value	Boolean	Optional / Once	BS812:Part 112:1990 Aggregate Impact Value (Dry)
1.3.3	BS 812 Part 110 Aggregate Crushing Value	Boolean	Optional / Once	BS812:Part 110:1990 Aggregate Crushing Value (Standard)
1.3.4	BS 812 Part 111 Aggregate Ten Percent Fines Value	Boolean	Optional / Once	BS812:Part 111:1990 Aggregate Ten Percent Fines Value (Dry)
1.3.5	BS 812 Part 111 Sizing	Boolean	Optional / Once	BS812:Part 111:1990 Sizing (Standard)
1.3.6	Other Description	Text	Optional / Once	Other Description
1.4	Sample Details Info	Sample Details Content	Mandatory / Once	Testing sample detail information
1.4.1	Sampling Location	Text	Mandatory / Once	Sampling Location

Level No.	Data Component	Type	Constraints	Definition
1.4.2	Source Of Material	Text	Mandatory / Once	Source Of Material
1.4.3	Samples Taken By	Text	Optional / Once	Samples Taken By
1.4.4	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.4.4.1	Type Of Material	Text	Optional / Once	Type of Material
1.4.4.2	Client Sample Number	Identifier	Optional / Once	Client Sample Number
1.4.4.3	Sample Mass	Measure	Optional / Once	Sample Mass
1.4.4.4	Remarks	Text	Optional / Once	Remarks
1.5	Other Info Content	Other Info	Mandatory / Once	Other sample testing information / requirement
1.5.1	Obtain B S 812 Part 102 1989	Code	Mandatory / Once Enumeration = Y,N,U	Obtain BS812:Part 102:1989
1.5.2	Certificate Available	Boolean	Mandatory / Once	Certificate Of Sampling Available
1.5.3	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required
1.5.4	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.6	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content

Level No.	Data Component	Type	Constraints	Definition
1.6.1	Delivery Supervised by Signature	Signature	Optional / Once	Sample(s) delivery supervised by Signature
1.6.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name
1.6.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post
1.6.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number
1.6.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.6.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.6.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature
1.6.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.6.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post
1.6.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.6.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.6.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.7	To Be Delivered Content	To Be Delivered	Optional / Once	To Be Delivered Content
1.7.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.

Level No.	Data Component	Type	Constraints	Definition
1.7.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.7.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code lists used in this message are listed below:

Data component: Test Requested Content.Test Request Name

Code	Description
1.1	BS812:Sect.103.1:1985, PWLTM No. AGG 1.1
1.4	BS812:Part 1:1975Section 7.2, PWLTM No. AGG 1.4
1.5	BS812:Section 105.1:1989, PWLTM No. AGG 1.5
1.6	BS812:Section 105.2:1990, PWLTM No. AGG 1.6
2.1a	BS812:Part 2:1975:Section 5.5, PWLTM No. AGG 2.1(a)
2.1b	BS812:Part 2:1975:Section 5.5, PWLTM No. AGG 2.1(b)
2.3	Appendix 5.2 of GS for Civil Engineering Works 1992
3.1	BS812:Part 110:1990, PWLTM No. AGG 3.1
3.2	BS812:Part 110:1990, PWLTM No. AGG 3.2
3.3	BS812:Part 111:1990, PWLTM No. AGG 3.3

Data component: Other Info Content.Obtain B S 812 Part 102 1989

Code	Description
Y	Yes
N	No
U	Uncertain

8.1.12.4 WDD-12.3 Form 2317 - Request for Paving Block Testing Message

WDD-12.3	Request for Paving Block Testing - Form 2317
Method	XML-based data standard

The following is a copy of the Form 2317 – Request for Paving Block Testing (Mar 2006) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR PAVING BLOCKS

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Please test the accompanying sample according to PWLTM BRK 2.3 (based on Appendix 11.1 of GS for Civil Engineering Works 1992)

Sample Details :

Client Sample Ref. No. : _____
Sampling location : _____
Type of block : _____
Source : _____
Name of manufacturer : _____
Date of manufacturer : _____ Age at test : _____ day
Nominal gross plan area : _____ Nominal height : _____ mm
Identification marks of blocks : _____ Grade of blocks : _____

Remarks : _____

Notes : - (1) To be completed by a project works supervisor grade officer or above.
(2) To be completed by a project inspectorate grade officer or above (or his delegate).

Sample(s) delivery supervised by(1)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Test(s) requested by(2)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2317 Mar 2006

The data structure of the WDD-12.3 Form 2317 - Request for Paving Block Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.3-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.3-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Paving Blocks	Testing Request for Paving Blocks	-	Testing Request For Paving Blocks Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number

Level No.	Data Component	Type	Constraints	Definition
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Details Content	Sample Details Info	Optional / Once	Sample Details Content
1.3.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.2	Sampling Location	Text	Optional / Once	Sampling Location
1.3.3	Type Of Block	Text	Optional / Once	Type Of Block
1.3.4	Source	Text	Optional / Once	Source
1.3.5	Name Of Manufacturer	Name	Optional / Once	Name Of Manufacturer
1.3.6	Date Of Manufacturer	Date	Optional / Once	Date Of Manufacturer
1.3.7	Age At Test	Measure	Optional / Once	Age At Test (in days)
1.3.8	Nominal Gross Plan Area	Quantity	Optional / Once	Nominal Gross Plan Area
1.3.9	Nominal Height	Measure	Optional / Once	Nominal Height (in mm)
1.3.10	Identification Marks Of Blocks	Text	Optional / Once	Identification Marks Of Blocks
1.3.11	Grade Of Blocks	Text	Optional / Once	Grade Of Blocks
1.3.12	Remarks	Text	Optional / Once	Remarks

Level No.	Data Component	Type	Constraints	Definition
1.4	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.4.1	Delivery Supervised by Signature	Signature	Optional / Once	Sample(s) delivery supervised by Signature
1.4.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name
1.4.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post
1.4.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number
1.4.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.4.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.4.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature
1.4.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.4.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post
1.4.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.4.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.4.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.5	To Be Delivered Content	To Be Delivered	Optional / Once	To Be Delivered Content

Level No.	Data Component	Type	Constraints	Definition
1.5.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.5.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.5.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

8.1.12.5 WDD-12.4 Form 2403 – Request for Steel Bar Testing Message

WDD-12.4	Request for Steel Bar Testing - Form 2403
Method	XML-based data standard

The following is a copy of the two-page Form 2403 – Request for Steel Bar Testing (Mar 2006) from CEDD Web site:

Page 1

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR STEEL BARS

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Please test the accompanying reinforcement bar sample(s) in accordance with : (Please select the appropriate box)

☐ CS2:1995 ☐ BS4449:1988

☐ Others (Please specify) _____

Sample Details :

Set No.	Nominal size (mm)	Grade	No. of specimen			Bar pattern code	Client Sample Ref. No.	Heat/ Cast No.	Size of batch in tonnes	Name of stockist company
			T	B	RB					

_____ No(s) of corresponding mill certificate(s) attached.

Notes :- T = Tensile test ; B = Bend test ; RB = Rebend test.
(1) To be completed by a project works supervisor grade officer or above.
(2) To be completed by a project inspectorate grade officer or above (or his delegate).

Remarks : _____

Sample(s) delivery supervised by(1)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Test(s) requested by(2)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2403 (Sheet 1 of 2) Mar 2006

Page 2

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE LABEL I. D. FORM

Contract No. ____________________
Ref. No. ____________________

Set No.	Nominal size (mm)	Sample label I. D.		
		T	B	RB

Set No.	Nominal size (mm)	Sample label I. D.		
		T	B	RB

Legend : T = Tensile test
B = Bend test
RB = Rebend test

C Eng D (GEO) 2403 (Sheet 2 of 2) Mar 2006

The data structure of the WDD-12.4 Form 2403 – Request for Steel Bar Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.4-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.4-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.4-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Steel Bars	Testing Request for Steel Bars	-	Testing Request For Steel Bars Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested	Optional / Once	Test Requested Content

Level No.	Data Component	Type	Constraints	Definition
1.3.1	Test Requested Name	Code	Optional / Multiple Enumeration = CS,BS,OS	Test Requested Name
1.3.2	Other Description	Text	Optional / Once	Description for other tests
1.4	Sample Details Content	Sample Details Info	Optional / Once	Sample Details Content
1.4.1	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.4.1.1	Set Number	Identifier	Optional / Once	Set Number
1.4.1.2	Nominal Size	Measure	Optional / Once	Nominal Size (in mm)
1.4.1.3	Grade	Text	Optional / Once	Grade
1.4.1.4	Number Of Specimen T	Quantity	Optional / Once	Number Of Specimen for Tensile Test
1.4.1.5	Number Of Specimen B	Quantity	Optional / Once	Number Of Specimen for Bend Test
1.4.1.6	Number Of Specimen R B	Quantity	Optional / Once	Number Of Specimen for Rebend Test
1.4.1.7	Bar Pattern Code	Identifier	Optional / Once	Bar Pattern Code
1.4.1.8	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.4.1.9	Heat Or Cast Number	Identifier	Optional / Once	Heat Or Cast Number

Level No.	Data Component	Type	Constraints	Definition
1.4.1.10	Size Of Batch In Tonnes	Quantity	Optional / Once	Size Of Batch In Tonnes
1.4.1.11	Name Of Stockist Company	Name	Optional / Once	Name Of Stockist Company
1.4.2	Number Of Certificates Attached	Quantity	Optional / Once	Number Of corresponding mill certificate(s) attached
1.4.3	Remarks	Text	Optional / Once	Remarks
1.5	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.5.1	Delivery Supervised by Signature	Signature	Optional / Once	Sample(s) delivery supervised by Signature
1.5.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name
1.5.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post
1.5.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number
1.5.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.5.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.5.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature
1.5.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.5.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post

Level No.	Data Component	Type	Constraints	Definition
1.5.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.5.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.5.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.6	To Be Delivered Content	To Be Delivered	Optional / Once	To Be Delivered Content
1.6.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.6.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.6.3	Delivery Address	Text	Optional / Once	Address for content to be delivered
1.7	Sample Label I D Info	Sample Label I D	Optional / Multiple	Sample Label ID Info
1.7.1	Set Number	Identifier	Optional / Once	Set Number
1.7.2	Nominal Size	Measure	Optional / Once	Nominal Size (in mm)
1.7.3	Sample Label T	Quantity	Optional / Once	Sample Label ID for Tensile Test
1.7.4	Sample Label B	Quantity	Optional / Once	Sample Label ID for Bend Test
1.7.5	Sample Label R B	Quantity	Optional / Once	Sample Label ID for Rebend Test

The code list used in this message is listed below:

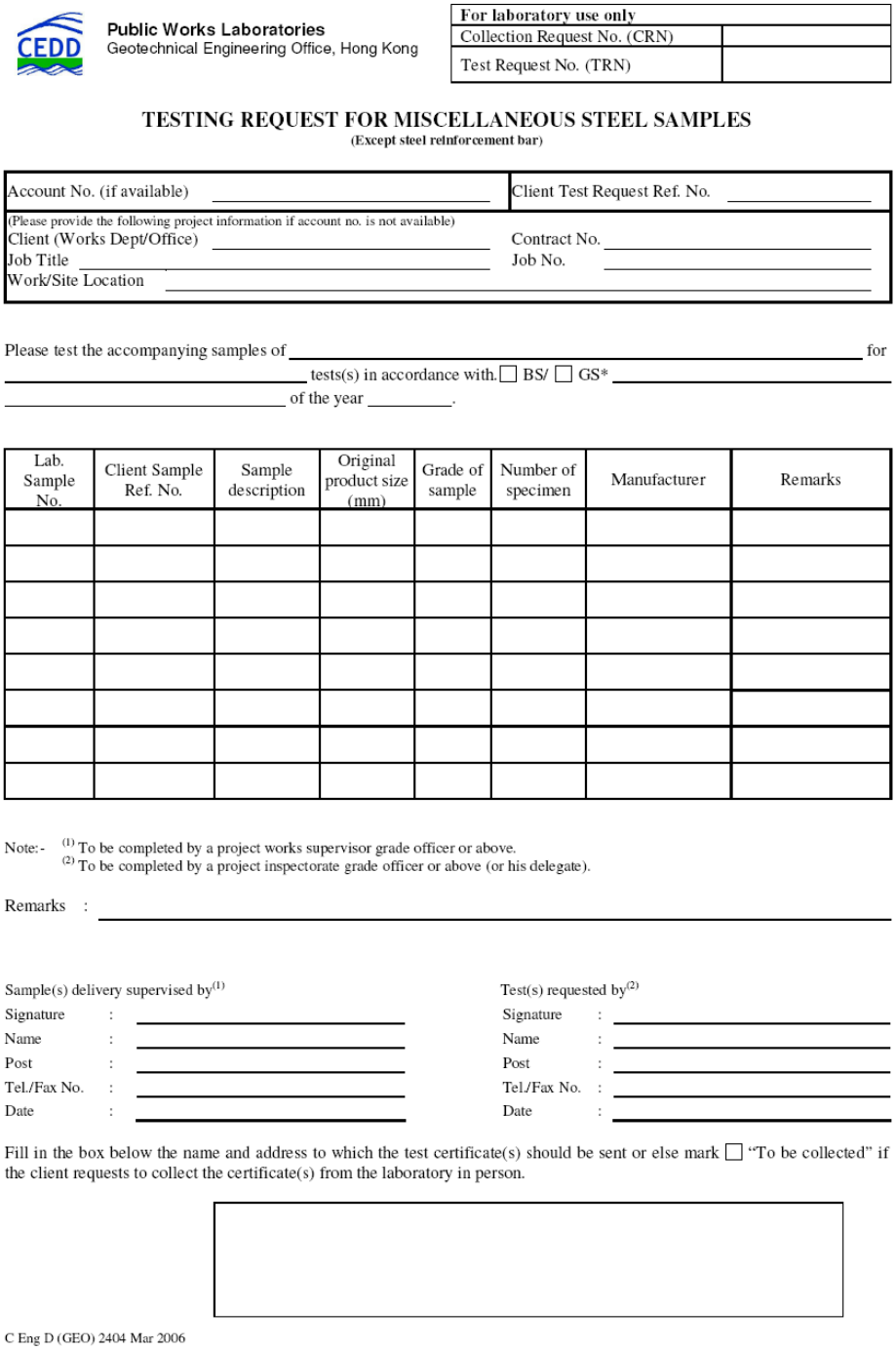
Data component: Test Requested ContentTest Request Name

Code	Description
CS	CS2:1995
BS	BS4449:1988
OS	Others

8.1.12.6 WDD-12.5 Form 2404 – Request for Miscellaneous Steel Sample Testing Message

WDD-12.5	Request for Miscellaneous Steel Sample Testing - Form 2404
Method	XML-based data standard

The following is a copy of the Form 2404 – Request for Miscellaneous Steel Sample Testing (Mar 2006) from CEDD Web site:



Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR MISCELLANEOUS STEEL SAMPLES
(Except steel reinforcement bar)

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Please test the accompanying samples of _____ for _____ tests(s) in accordance with ☐ BS/ ☐ GS* _____ of the year _____.

Lab. Sample No.	Client Sample Ref. No.	Sample description	Original product size (mm)	Grade of sample	Number of specimen	Manufacturer	Remarks

Note:- (1) To be completed by a project works supervisor grade officer or above.
(2) To be completed by a project inspectorate grade officer or above (or his delegate).

Remarks : _____

Sample(s) delivery supervised by(1)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Test(s) requested by(2)
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2404 Mar 2006

The data structure of the WDD-12.5 Form 2404 – Request for Miscellaneous Steel Sample Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.5-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.5-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.5-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Miscellaneous Steel Samples	Testing Request for Miscellaneous Steel Samples	-	Testing Request For Miscellaneous Steel Samples Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number

Level No.	Data Component	Type	Constraints	Definition
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested	Optional / Once	Test Requested Content
1.3.1	Sample	Text	Mandatory / Once	Test sample description
1.3.2	Test	Text	Mandatory / Once	Testing description
1.3.3	Test Type	Code	Mandatory / Once Enumeration = BS,GS	Test Type
1.3.4	Test Number	Quantity	Mandatory / Once	Test Number
1.3.5	Year of Test Standard	Date	Mandatory / Once	Year of Test Standard
1.4	Sample Details Content	Sample Details Info	Optional / Once	Sample Details Content
1.4.1	Sample Details Record Info	Sample Details Record	Optional / Multiple	Sample Details Record Information
1.4.1.1	Lab Sample Number	Identifier	Optional / Once	Laboratory Sample Number
1.4.1.2	Client Sample Ref Number	Identifier	Optional / Once	Client Sample Reference Number

Level No.	Data Component	Type	Constraints	Definition
1.4.1.3	Sample Description	Text	Optional / Once	Sample Description
1.4.1.4	Original Product Size W	Measure	Optional / Once	Original Product Size Width
1.4.1.5	Original Product Size L	Measure	Optional / Once	Original Product Size Length
1.4.1.6	Original Product Size D	Measure	Optional / Once	Original Product Size Depth
1.4.1.7	Grade Of Sample	Text	Optional / Once	Grade Of Sample
1.4.1.8	Number Of Specimen	Quantity	Optional / Once	Number Of Specimen
1.4.1.9	Manufacturer	Text	Optional / Once	Manufacturer
1.4.1.10	Sample Remarks	Text	Optional / Once	Sample Remarks
1.4.2	Remarks	Text	Optional / Once	Remarks
1.5	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.5.1	Delivery Supervised by Signature	Signature	Optional / Once	Sample(s) delivery supervised by Signature
1.5.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name
1.5.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post
1.5.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number

Level No.	Data Component	Type	Constraints	Definition
1.5.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.5.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.5.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature
1.5.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.5.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post
1.5.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.5.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.5.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.6	To Be Delivered Info	To Be Delivered	Optional / Once	To Be Delivered Info
1.6.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.6.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.6.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code list used in this message is listed below:

Data component: Test Requested Content.Test Type

Code	Description

BS	BS
GS	GS

8.1.12.7 WDD-12.6 Form 2405 – Request for Cast Iron Drainage Goods Testing Message

WDD-12.6	Request for Cast Iron Drainage Goods Testing - Form 2405
Method	XML-based data standard

The following is a copy of the Form 2405 – Request for Cast Iron Drainage Goods Testing (Mar 2006) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR CAST IRON DRAINAGE GOODS

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Please test the accompanying sample(s) of cast iron drainage goods in accordance with : (Please select the appropriate box)

☐ GS 1992 ☐ PS attached ☐ Others (Please specify) _____

Client Sample Ref. No.	Sample description	Drg. No.	Grade	Test required (L, W)[1]	Test requirements[2]		
					Test load (☐ kN/ ☐ Tonnes)	Bearing block diameter (mm)	Minimum mass (kg)
							Frame : Cover : Total :
							Frame : Cover : Total :
							Frame : Cover : Total :
							Frame : Cover : Total :
							Frame : Cover : Total :

_____ no(s) of corresponding drawing sheet(s) attached.
Source of material : _____

Note :- [1]Test required : L=Loading test. W=Mass determination.
[2] Leave blank if inapplicable.
[3] To be completed by a project works supervisor grade officer or above (or his delegate).
[4] To be completed by a project inspectorate grade officer or above (or his delegate).

Remarks : _____

Sample(s) delivery supervised by[3]		Test(s) requested by[4]	
Signature	:	Signature	:
Name	:	Name	:
Post	:	Post	:
Tel./Fax No.	:	Tel./Fax No.	:
Date	:	Date	:

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2405 Mar 2006

The data structure of the WDD-12.6 Form 2405 – Request for Cast Iron Drainage Goods Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.6-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.6-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.6-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Cast Iron Drainage Goods	Testing Request for Cast Iron Drainage Goods	-	Testing Request For Cast Iron Drainage Goods Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested	Optional / Once	Test Requested Content
1.3.1	Test Requested Name	Code	Optional / Multiple Enumeration = GS,PS,OS	Test Requested Name
1.3.2	Other Description	Text	Optional / Once	Other Requested Test Description
1.4	Sample Details Content	Sample Details Info	Optional / Once	Sample Details Content
1.4.1	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.4.1.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.4.1.2	Sample Description	Text	Optional / Once	Sample Description
1.4.1.3	Drawing Number	Identifier	Optional / Once	Drawing Number
1.4.1.4	Grade	Text	Optional / Once	Grade
1.4.1.5	Test Required	Code	Optional / Once Enumeration = L,W	Test Required (L, W)

Level No.	Data Component	Type	Constraints	Definition
1.4.1.6	Test Requirements Info	Test Requirements	Optional / Once	Test Requirements Information
1.4.1.6.1	Test Load	Quantity	Optional / Once	Test Load (in kN/Tonnes)
1.4.1.6.2	Bearing Block Diameter	Measure	Optional / Once	Bearing Block Diameter (in mm)
1.4.1.6.3	Minimum Mass Frame	Measure	Optional / Once	Minimum Mass Frame (in kg)
1.4.1.6.4	Minimum Mass Cover	Measure	Optional / Once	Minimum Mass Cover (in kg)
1.4.1.6.5	Minimum Mass Total	Measure	Optional / Once	Minimum Mass Total (in kg)
1.4.2	Test Load Unit	Code	Optional / Once Enumeration = N,T	Test Load Unit (kN/Tonnes)
1.4.3	Number Of Drawing Attached	Quantity	Optional / Once	Number of drawing sheet(s) attached
1.4.4	Source Of Material	Text	Optional / Once	Source Of Material
1.4.5	Remarks	Text	Optional / Once	Remarks
1.5	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.5.1	Delivery Supervised by Signature	Signature	Optional / Once	Sample(s) delivery supervised by Signature
1.5.2	Delivery Supervised by Name	Name	Mandatory / Once	Sample(s) delivery supervised by Name

Level No.	Data Component	Type	Constraints	Definition
1.5.3	Delivery Supervised by Post	Text	Optional / Once	Sample(s) delivery supervised by Post
1.5.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Sample(s) delivery supervised by Telephone Number
1.5.5	Delivery Supervised by Fax Number	Text	Optional / Once	Sample(s) delivery supervised by Fax Number
1.5.6	Delivery Supervised by Date	Date	Mandatory / Once	Sample(s) delivery supervised by Date
1.5.7	Requested by Signature	Signature	Optional / Once	Test(s) requested by Signature
1.5.8	Requested by Name	Name	Mandatory / Once	Test(s) requested by Name
1.5.9	Requested by Post	Text	Mandatory / Once	Test(s) requested by Post
1.5.10	Requested by Telephone Number	Text	Optional / Once	Test(s) requested by Telephone Number
1.5.11	Requested by Fax Number	Text	Optional / Once	Test(s) requested by Fax Number
1.5.12	Requested by Date	Date	Mandatory / Once	Test(s) requested by Date
1.6	To Be Delivered Content	To Be Delivered	Optional / Once	To Be Delivered Content
1.6.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.6.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.6.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code lists used in this message are listed below:

Data component: Test Requested ContentTest Request Name

Code	Description
GS	GS 1992
PS	PS Attached
OS	Others

Data component: Sample Details Content.Test Load Unit

Code	Description
N	Kilo Newtons
T	Tonnes

Data component: Sample Details Content.Sample Details Record Content.Test Required

Code	Description
L	Loading Test
W	Mass Determination

8.1.12.8 WDD-12.7 Form 2201 – Request for Sample Collection and Testing Request for Chemical Testing Services for Concrete Message

WDD-12.7	Request for Sample Collection and Testing Request for Chemical Testing Services for Concrete - Form 2201
Method	XML-based data standard

The following is a copy of the Form 2210 – Request for Sample Collection and Testing for Chemical Testing Services for Concrete (Jan 2005) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION AND TESTING REQUEST FOR CHEMICAL TESTING SERVICES FOR CONCRETE

(To be used only by authorised project)

PART A : Request *(To be completed and then emailed/faxed to **PWL**[1] by a project assistant grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)

Client (Works Dept/Office) _____ Contract No. _____

Job Title _____ Job No. _____

Work/Site Location _____

Details of Samples:-

Set No.	Client sample reference No.	Sample Description / Dimensions	Profile Grinding Details (if applicable)	Test Requested	Core / Sampling Location	Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						

Is sample collection service provided by contract laboratory required? (please select) Yes No

Location of samples to be collected _____

Site Tel. No. _____ Mobile phone No. _____

Site Contact Person _____

Please provide below Fax No./E-mail Address for delivery of preliminary results:

Fax No _____ / E-mail Address _____

Requested by :-

Signed

Name

Post _____

Date _____

PART B : Confirmation *(To be completed and then faxed to the contract laboratory by PWL staff)*

The samples given in Part A above should be : (1) collected by (2) delivered to (3) tested by

through Contract No. ____/____/____

Date/Time of sample collection service request received :-

(____/____/____) / (____:____)

Date/Time of notifying the contract laboratory :-

(____/____/____) / (____:____)

Notified by :-

Signed _____

Name _____

Post _____

PART C : Hand-over of samples *(Upon completion of handing over of samples, the contract laboratory shall fax the fully completed form to **PWL**[1])*

*(To be completed by project site staff **on the hand-over date of samples**)*

I confirm that the above sample had been handed over to the contract laboratory staff. (please select)

The samples were collected by the contract laboratory on site.

The samples were delivered to the contract laboratory by us.

Signed _____

Name _____

Post _____

Date/Time (__/__/__) / (__:__)

(To be completed by contract laboratory staff)

I acknowledge the receipt of the above samples.

Total No. of samples collected : _____

Signed _____

Name _____

Post _____

Date/Time (__/__/__) / (__:__)

[1]Telephone number and fax number of PWL :-

Telephone No. : 2305 1293 Fax No. : 2795 9611

C Eng D (GEO) 2201 Jan 2005

The data structure of the WDD-12.7 Form 2201 – Request for Sample Collection and Testing Request for Chemical Testing Services for Concrete message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.7-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.7-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.7-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Concrete	Sample Collection And Testing Request for Concrete	-	Sample Collection And Testing Request for Concrete Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Details Content	Sample Details Info	Mandatory / Once	Sample Details Content
1.3.1	Sample Details Record Info	Sample Details Record	Optional / Multiple	Detail information of the sample(s)
1.3.1.1	Client Sample Ref Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.1.2	Sample Description	Text	Optional / Once	Sample Description / Dimensions
1.3.1.3	Profile Grinding	Text	Optional / Once	Profile Grinding Details
1.3.1.4	Test Requested	Text	Optional / Once	Test Requested
1.3.1.5	Core or Sampling Location	Text	Optional / Once	Core or Sampling Location
1.3.1.6	Remarks	Text	Optional / Once	Remarks
1.3.2	Sample Collection Required	Boolean	Mandatory / Once	Sample Collection Required
1.3.3	Location Of Sample Collected	Text	Optional / Once	Location Of Sample Collected
1.3.4	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.5	Mobile Phone Number	Text	Optional / Once	Mobile Phone Number

Level No.	Data Component	Type	Constraints	Definition
1.3.6	Site Contact Person	Text	Optional / Once	Site Contact Person
1.3.7	Delivery Fax Number	Text	Optional / Once	Delivery Fax Number
1.3.8	Delivery E Mail Address	Electronic Address	Optional / Once	Delivery E Mail Address
1.3.9	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.10	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.11	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.12	Requested By Date	Date	Mandatory / Once	Requested By Date
1.4	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Information for Contract Laboratory
1.4.1	Confirmation Mode	Code	Mandatory / Once Enumeration = C,D,T	Confirmation Mode
1.4.2	Confirmation Description	Text	Mandatory / Once	Confirmation Description
1.4.3	Confirmation Contract Number	Identifier	Mandatory / Once	Confirmation Contract Number
1.4.4	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.5	Collection Time	Time	Optional / Once	Sample Collection Time

Level No.	Data Component	Type	Constraints	Definition
1.4.6	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.7	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.8	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.9	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.10	Notified By Post	Text	Mandatory / Once	Notified By Post
1.5	Hand Over of Samples Content	Hand Over of Samples Info	Mandatory / Once	Hand Over of Samples Content
1.5.1	Hand Over Mode	Code	Mandatory / Once Enumeration = C,D	Hand Over Mode
1.5.2	Hand Over By Signed	Signature	Optional / Once	Hand Over By Signed
1.5.3	Hand Over By Name	Name	Mandatory / Once	Hand Over By Name
1.5.4	Hand Over By Post	Text	Optional / Once	Hand Over By Post
1.5.5	Hand Over By Date	Date	Mandatory / Once	Hand Over By Date
1.5.6	Hand Over By Time	Time	Mandatory / Once	Hand Over By Time
1.5.7	Total Samples Collection	Quantity	Mandatory / Once	Total no. of samples being collected

Level No.	Data Component	Type	Constraints	Definition
1.5.8	Received By Signed	Signature	Optional / Once	Received By Signed
1.5.9	Received By Name	Name	Mandatory / Once	Received By Name
1.5.10	Received By Post	Text	Mandatory / Once	Received By Post
1.5.11	Received By Date	Date	Mandatory / Once	Received By Date
1.5.12	Received By Time	Time	Mandatory / Once	Received By Time
1.5.13	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.5.14	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

The code lists used in this message are listed below:

Data component: Confirmation Content.Confirmation Mode

Code	Description
C	Collected By
D	Delivered To
T	Tested By

Data component: Hand Over of Samples Content.Hand Over Mode

Code	Description
C	Collected By Contract Laboratory on site
D	Delivered To Contract Laboratory by us

8.1.12.9 WDD-12.8 Form 2202 – Request Form for Sample Collection and Testing Request for Chemical Testing Services for Soil Message

WDD-12.8	Request Form for Sample Collection and Testing Request for Chemical Testing Services for Soil - Form 2202
Method	XML-based data standard

The following is a copy of the Form 2202 – Request for Sample Collection and Testing Request for Chemical Testing Services (Jan 2005) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION AND TESTING REQUEST FOR CHEMICAL TESTING SERVICES FOR SOIL

(To be used only by authorised project)

PART A : Request *(To be completed and then emailed/faxed to **PWL**[1] by a project assistant grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)

Client (Works Dept/Office) _____ Contract No. _____

Job Title _____ Job No. _____

Work/Site Location _____

Details of Samples:-

Set No.	Client sample reference No.	Sample Description	Sample Mass (kg)	Test Requested	Sampling Location	Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						

Is sample collection service provided by contract laboratory required? (please select) Yes No

Location of samples to be collected _____

Site Tel. No. _____ Mobile phone No. _____

Site Contact Person _____

Please provide below Fax No./E-mail Address for delivery of preliminary results:

Fax No _____ / E-mail Address _____

Requested by :-

Signed

Name

Post _____

Date _____

PART B : Confirmation *(To be completed and then faxed to the contract laboratory by PWL staff)*

The samples given in Part A above should be : (1) collected by (2) delivered to (3) tested by

through Contract No. ____/____/____

Date/Time of sample collection service request received :-

(____/____/____) / (____:____)

Date/Time of notifying the contract laboratory :-

(____/____/____) / (____:____)

Notified by :-

Signed _____

Name _____

Post _____

PART C : Hand-over of samples *(Upon completion of handing over of samples, the contract laboratory shall fax the fully completed form to **PWL**[1])*

*(To be completed by project site staff **on the hand-over date of samples**)*	*(To be completed by contract laboratory staff)*
I confirm that the above sample had been handed over to the contract laboratory staff. (please select)	I acknowledge the receipt of the above samples.
The samples were collected by the contract laboratory on site.	Total No. of samples collected : _____
The samples were delivered to the contract laboratory by us.	
Signed _____	Signed _____
Name _____	Name _____
Post _____	Post _____
Date/Time (__/__/__) / (__:__)	Date/Time (__/__/__) / (__:__)

[1]Telephone number and fax number of PWL :-

Telephone No. : 2305 1293 Fax No. : 2795 9611

C Eng D (GEO) 2202 Jan 2005

The data structure of the 12.8 Form 2202 – Request Form for Sample Collection and Testing Request for Chemical Testing Services for Soil message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.8-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.8-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.8-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Soil	Sample Collection And Testing Request for Soil	-	Sample Collection And Testing Request for Soil Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Details Content	Sample Details Info	Mandatory / Once	Sample Details Content
1.3.1	Sample Details Record Info	Sample Details Record	Optional / Multiple	Sample Details Record Info
1.3.1.1	Client Sample Ref Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.1.2	Sample Description	Text	Optional / Once	Sample Description / Dimensions
1.3.1.3	Sample Mass	Measure	Optional / Once	Sample Mass (in kg)
1.3.1.4	Test Requested	Text	Optional / Once	Test Requested
1.3.1.5	Sampling Location	Text	Optional / Once	Sampling Location
1.3.1.6	Remarks	Text	Optional / Once	Remarks
1.3.2	Sample Collection Required	Boolean	Mandatory / Once	Sample Collection Required or not indicator
1.3.3	Location Of Sample Collected	Text	Optional / Once	Location Of Sample Collected
1.3.4	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.5	Mobile Phone Number	Text	Optional / Once	Mobile Phone Number

Level No.	Data Component	Type	Constraints	Definition
1.3.6	Site Contact Person	Text	Optional / Once	Site Contact Person
1.3.7	Delivery Fax Number	Text	Optional / Once	Delivery Fax Number
1.3.8	Delivery E Mail Address	Electronic Address	Optional / Once	Delivery E Mail Address
1.3.9	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.10	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.11	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.12	Requested By Date	Date	Mandatory / Once	Requested By Date
1.4	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.4.1	Confirmation Mode	Code	Mandatory / Once Enumeration = C,D,T	Confirmation Mode
1.4.2	Confirmation Description	Text	Mandatory / Once	Confirmation Description
1.4.3	Confirmation Contract Number	Identifier	Mandatory / Once	Confirmation Contract Number
1.4.4	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.5	Collection Time	Time	Optional / Once	Sample Collection Time

Level No.	Data Component	Type	Constraints	Definition
1.4.6	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.7	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.8	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.9	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.10	Notified By Post	Text	Mandatory / Once	Notified By Post
1.5	Hand Over of Samples Content	Hand Over of Samples Info	Mandatory / Once	Hand Over of Samples Content
1.5.1	Hand Over Mode	Code	Mandatory / Once Enumeration = C,D	Mode of the sample to hand over
1.5.2	Hand Over By Signed	Signature	Optional / Once	Hand Over By Signed
1.5.3	Hand Over By Name	Name	Mandatory / Once	Hand Over By Name
1.5.4	Hand Over By Post	Text	Optional / Once	Hand Over By Post
1.5.5	Hand Over By Date	Date	Mandatory / Once	Hand Over By Date
1.5.6	Hand Over By Time	Time	Mandatory / Once	Hand Over By Time
1.5.7	Total Samples Collection	Quantity	Mandatory / Once	Total no. of samples collected

Level No.	Data Component	Type	Constraints	Definition
1.5.8	Received By Signed	Signature	Optional / Once	Received By Signed
1.5.9	Received By Name	Name	Mandatory / Once	Received By Name
1.5.10	Received By Post	Text	Mandatory / Once	Received By Post
1.5.11	Received By Date	Date	Mandatory / Once	Received By Date
1.5.12	Received By Time	Time	Mandatory / Once	Received By Time
1.5.13	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.5.14	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

The code lists used in this message are listed below:

Data component: Confirmation Content.Confirmation Mode

Code	Description
C	Collected By
D	Delivered To
T	Tested By

Data component: Hand Over of Samples Content.Hand Over Mode

Code	Description
C	Collected By Contract Laboratory on site
D	Delivered To Contract Laboratory by us

8.1.12.10 WDD-12.9 Form 2316 – Request Form for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory Message

WDD-12.9	Request Form for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory - Form 2316
Method	XML-based data standard

The following is a copy of the Form 2316 – Request for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory (Jan 2007) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION AND TESTING REQUEST FOR CLAY/CONCRETE PAVING BLOCKS

PART A : Request *(To be completed and then faxed to **PWL**[1] by a project assistant grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Locations of samples to be collected _____
Site Contact Person _____ Site Tel. No. _____
Are preliminary test results by fax required? ☐ Yes ☐ No
If yes, please provide Fax No.
Please enter address for the delivery of test reports

Requested by :-
Signed _____
Name _____
Post _____
Date _____

Sample details and test required :-

Client Specimen Ref. No. :	
Nominal Sample Size :	

Description	No. of set	Remarks
(i) Dimension tests in accordance with BS 6677:Part1:1986 (24 blocks per set)		
(ii) Transverse breaking load tests in accordance with BS 6677:Part1:1986 (10 blocks per set)		
(iii) Skid resistance tests in accordance with BS 6677:Part1:1986 (5 blocks per set)		
(iv) Water absorption tests in accordance with AS/NZS 4456.14-1997 (both 24 hours cold immersion method and 5 hours boiling method.) (10 blocks per set)		
(v) Characteristic compressive strength tests in accordance with GS Clause 11.75 to 11.78 (includes dimension check) (5 blocks per set)		
(vi) Overall Dimension and thickness test in accordance with Annex B of BS 6717:2001 (8 blocks per set)		
(vii) Overall Dimension and thickness test in accordance with Annex B of BS 7263-1:2001 (6 flags per set)		

PART B : Works Ordered *(To be completed and faxed to Contract Laboratory by PWL staff)* **PWL Ref. No.:**

Testing services required for samples described in Part A:

Test required		No. of sets of samples collected and tested by Contract Lab.	No. of sets of samples collected and deliver to PWL
(i)	Dimension		
(ii)	Transverse breaking load		
(iii)	Skid resistance		
(iv)	Water Absorption		
(v)	Characteristic compressive Strength		
(vi)	Overall dimension and thickness (block)		
(vii)	Overall dimension and thickness (flag)		

Date/Time of sample collection service request received :-
(____/____/____) / (____:____)

Date/Time of notifying the contract laboratory :-
(____/____/____) / (____:____)

Notified by :-
Signed _____
Name _____
Post _____

PART C : Hand-over of samples *(Upon completion of handing over of samples, the contract laboratory shall fax the duly completed form to **PWL**[1])*

*(To be completed by project site staff **on the hand-over date of samples**)*	*(To be completed by contract laboratory staff)*
I confirm that the above sample(s) has/have been handed over to the contract laboratory staff.	I acknowledge the receipt of the above samples
Signed _____	Signed _____
Name _____	Name _____
Post _____	Post _____
Date/Time (/ /) / (:)	Date/Time (/ /) / (:)

[1]Telephone number and fax number of PWL :-

Telephone No. : 2305 1277 Fax No. : 2707 4825

C Eng D (GEO) 2316 Jan 2007

The data structure of the WDD-12.9 Form 2316 – Request Form for Sample Collection and Testing Services for Clay/Concrete Paving Blocks Provided by PWL Contract Laboratory message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.9-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.9-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.9-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Clay Concrete Paving Blocks	Sample Collection And Testing Request for Clay Concrete Paving Blocks	-	Sample Collection And Testing Request for Clay Concrete Paving Blocks Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number

Level No.	Data Component	Type	Constraints	Definition
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Collection and Testing Content	Sample Collection Info	Mandatory / Once	Sample Collection and Testing Content
1.3.1	Location Of Sample Collected	Text	Optional / Once	Location Of Sample to be Collected
1.3.2	Site Contact Person	Name	Optional / Once	Site Contact Person
1.3.3	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.4	Preliminary Test Result	Boolean	Optional / Once	Flag to indicate that the preliminary test result is to be required
1.3.5	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.3.6	Delivery Address	Text	Optional / Once	Delivery Address
1.3.7	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.8	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.9	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.10	Requested By Date	Date	Mandatory / Once	Requested By Date

Level No.	Data Component	Type	Constraints	Definition
1.3.11	Sample Details and Test Requirements	Sample Details Info	Mandatory / Once	Sample Details and Test Requirements
1.3.11.1	Client Specimen Reference Number	Identifier	Mandatory / Once	Client Specimen Reference Number
1.3.11.2	Nominal Sample Size	Text	Mandatory / Once	Nominal Sample Size
1.3.11.3	Sample Test Requirements	Sample Test Details	Optional / Multiple	Sample Test Requirements
1.3.11.3.1	Test Description	Code	Optional / Once Enumeration = D_DESC,T_DESC,S_DESC,W_DESC,C_DESC,B_DESC,F_DESC	Test Description
1.3.11.3.2	Number Of Set	Quantity	Optional / Once	Number of Set
1.3.11.3.3	Remarks	Text	Optional / Once	Remarks
1.4	Works Ordered Content	Works Ordered Info	Mandatory / Once	Works Ordered Content
1.4.1	P W L Reference Number	Identifier	Optional / Once	P W L Reference Number
1.4.2	Works Ordered Record Content	Works Ordered Record	Optional / Multiple	Works Ordered Record Content

Level No.	Data Component	Type	Constraints	Definition
1.4.2.1	Test Required	Code	Optional / Once Enumeration = D_REQD,T_REQD,S_REQD,W_REQD,C_REQD,B_REQD,F_REQD	Test Required
1.4.2.2	No of Sets of Samples Collected And Tested By Contract Lab	Quantity	Optional / Once	No of Sets of Samples Collected And Tested By Contract Lab
1.4.2.3	No of Sets of Samples Collected And Deliver to P W L	Quantity	Optional / Once	No of Sets of Samples Collected And Deliver to P W L
1.4.3	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.4	Collection Time	Time	Optional / Once	Sample Collection Time
1.4.5	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.6	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.7	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.8	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.9	Notified By Post	Text	Mandatory / Once	Notified By Post

Level No.	Data Component	Type	Constraints	Definition
1.5	Hand Over of Samples Content	Hand Over of Samples Info	Mandatory / Once	Hand Over of Samples Content
1.5.1	Hand Over By Signed	Signature	Optional / Once	Hand Over By Signed
1.5.2	Hand Over By Name	Name	Mandatory / Once	Hand Over By Name
1.5.3	Hand Over By Post	Text	Optional / Once	Hand Over By Post
1.5.4	Hand Over By Date	Date	Mandatory / Once	Hand Over By Date
1.5.5	Hand Over By Time	Time	Mandatory / Once	Hand Over By Time
1.5.6	Received By Signed	Signature	Optional / Once	Received By Signed
1.5.7	Received By Name	Name	Mandatory / Once	Received By Name
1.5.8	Received By Post	Text	Mandatory / Once	Received By Post
1.5.9	Received By Date	Date	Mandatory / Once	Received By Date
1.5.10	Received By Time	Time	Mandatory / Once	Received By Time
1.5.11	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.5.12	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

The code lists used in this message are listed below:

Data component: Sample Details Content.Sample Description

Code	Description
D_DESC	Dimension tests in accordance with BS 6677:Part1;1986 (24 blocks per set)
T_DESC	Transverse breaking load tests in accordance with BS 6677:Part1:1986 (10 blocks per set)
S_DESC	Skid resistance tests in accordance with BS 6677:Part1:1986 (5 blocks per set)
W_DESC	Water absorption tests in accordance with AS/NZS 4456.14-1997 (both 24 hours cold immersion method and 5 hours boiling method.) (10 blocks per set)
C_DESC	Characteristic compressive strength tests in accordance with GS Clause 11.75 to 11.78 (includes dimension check) (5 blocks per set)
B_DESC	Overall Dimension and thickness test in accordance with Annex B of BS 6717:2001 (8 blocks per set)
F_DESC	Overall Dimension and thickness test in accordance with Annex B of BS 7263-1:2001 (6 flags per set)

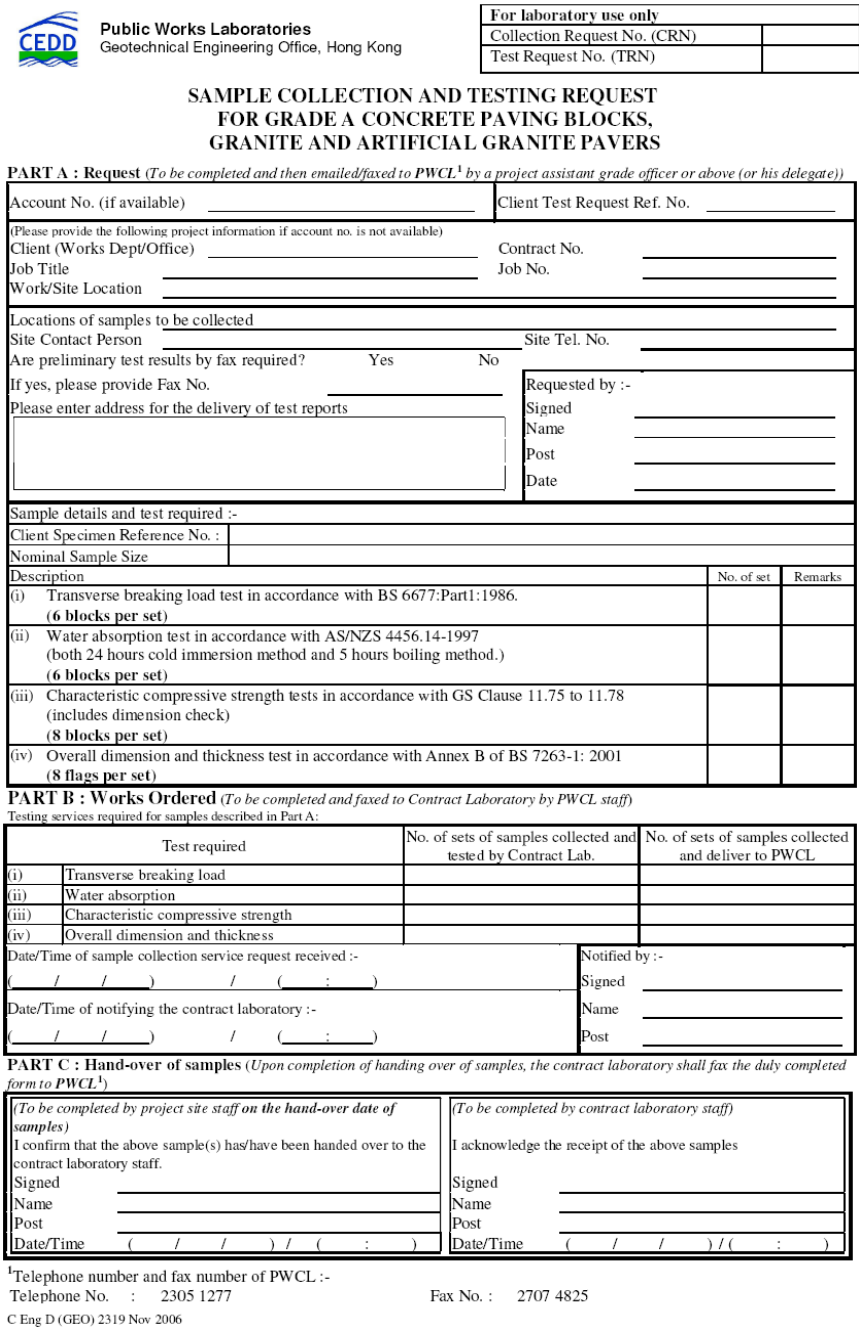
Data component: Works Ordered Record Content.Test Required

Code	Description
D_REQD	Dimension
T_REQD	Transverse breaking load
S_REQD	Skid resistance
W_REQD	Water Absorption
C_REQD	Characteristic compressive Strength
B_REQD	Overall dimension and thickness (block)
F_REQD	Overall dimension and thickness (flag)

8.1.12.11 WDD-12.10 Form 2319 – Request Form for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks Message

WDD-12.10	Request Form for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks - Form 2319
Method	XML-based data standard

The following is a copy of the Form 2319 – Request for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks, Granite and Artificial Granite Pavers (Nov 2006) from CEDD Web site:



CEDD **Public Works Laboratories**
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION AND TESTING REQUEST FOR GRADE A CONCRETE PAVING BLOCKS, GRANITE AND ARTIFICIAL GRANITE PAVERS

PART A : Request *(To be completed and then emailed/faxed to **PWCL**[1] by a project assistant grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Locations of samples to be collected _____
Site Contact Person _____ Site Tel. No. _____
Are preliminary test results by fax required? Yes No
If yes, please provide Fax No. _____
Please enter address for the delivery of test reports

Requested by :-
Signed _____
Name _____
Post _____
Date _____

Sample details and test required :-
Client Specimen Reference No. :
Nominal Sample Size

Description	No. of set	Remarks
(i) Transverse breaking load test in accordance with BS 6677:Part1:1986. **(6 blocks per set)**		
(ii) Water absorption test in accordance with AS/NZS 4456.14-1997 (both 24 hours cold immersion method and 5 hours boiling method.) **(6 blocks per set)**		
(iii) Characteristic compressive strength tests in accordance with GS Clause 11.75 to 11.78 (includes dimension check) **(8 blocks per set)**		
(iv) Overall dimension and thickness test in accordance with Annex B of BS 7263-1: 2001 **(8 flags per set)**		

PART B : Works Ordered *(To be completed and faxed to Contract Laboratory by PWCL staff)*
Testing services required for samples described in Part A:

	Test required	No. of sets of samples collected and tested by Contract Lab.	No. of sets of samples collected and deliver to PWCL
(i)	Transverse breaking load		
(ii)	Water absorption		
(iii)	Characteristic compressive strength		
(iv)	Overall dimension and thickness		

Date/Time of sample collection service request received :-
(/ /) / (:)
Date/Time of notifying the contract laboratory :-
(/ /) / (:)

Notified by :-
Signed _____
Name _____
Post _____

PART C : Hand-over of samples *(Upon completion of handing over of samples, the contract laboratory shall fax the duly completed form to **PWCL**[1])*

*(To be completed by project site staff **on the hand-over date of samples**)*	*(To be completed by contract laboratory staff)*
I confirm that the above sample(s) has/have been handed over to the contract laboratory staff.	I acknowledge the receipt of the above samples
Signed _____	Signed _____
Name _____	Name _____
Post _____	Post _____
Date/Time (/ /) / (:)	Date/Time (/ /) / (:)

[1]Telephone number and fax number of PWCL :-
Telephone No. : 2305 1277 Fax No. : 2707 4825

C Eng D (GEO) 2319 Nov 2006

The data structure of the WDD-12.10 Form 2319 – Request Form for Sample Collection Service and Testing Request for Grade A Concrete Paving Blocks message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.10-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.10-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.10-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Grade A Concrete	Sample Collection And Testing Request for Grade A Concrete	-	Sample Collection And Testing Request for Grade A Concrete Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Collection and Testing Content	Sample Collection Info	Mandatory / Once	Sample Collection and Testing Content
1.3.1	Location Of Sample Collected	Text	Optional / Once	Location Of Samples to be Collected
1.3.2	Site Contact Person	Text	Optional / Once	Site Contact Person
1.3.3	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.4	Preliminary Test Result	Boolean	Optional / Once	Flag to indicate that the preliminary test result is to be required
1.3.5	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.3.6	Delivery Address	Text	Optional / Once	Delivery Address of test reports
1.3.7	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.8	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.9	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.10	Requested By Date	Date	Mandatory / Once	Requested By Date
1.3.11	Sample Details and Test Required	Sample Details Info	Mandatory / Once	Sample Details and Test Required

Level No.	Data Component	Type	Constraints	Definition
1.3.11.1	Client Specimen Reference Number	Identifier	Mandatory / Once	Client Specimen Reference Number
1.3.11.2	Nominal Sample Size	Text	Mandatory / Once	Nominal Sample Size
1.3.11.3	Sample Details Record Content	Sample Test Details	Optional / Multiple	Sample Details Record Content
1.3.11.3.1	Sample Test Required	Code	Optional / Once Enumeration = T_DESC,W_DESC,C_DESC,O_DESC	Sample Test Required
1.3.11.3.2	Number Of Set	Quantity	Optional / Once	Number Of Set
1.3.11.3.3	Remarks	Text	Optional / Once	Remarks
1.4	Works Ordered Content	Works Ordered Info	Mandatory / Once	Works Ordered Content
1.4.1	Works Ordered Record Content	Works Ordered Record	Optional / Multiple	Works Ordered Record Content
1.4.1.1	Test Required	Code	Optional / Once Enumeration = T_REQD,W_REQD,C_REQD,O_REQD	Test Required

Level No.	Data Component	Type	Constraints	Definition
1.4.1.2	No of Sets of Samples Collected And Tested By Contract Lab	Quantity	Optional / Once	No of Sets of Samples Collected And Tested By Contract Lab
1.4.1.3	No of Sets of Samples Collected And Deliver to P W L	Quantity	Optional / Once	No of Sets of Samples Collected And Deliver to P W L
1.4.2	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.3	Collection Time	Time	Optional / Once	Sample Collection Time
1.4.4	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.5	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.6	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.7	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.8	Notified By Post	Text	Mandatory / Once	Notified By Post
1.5	Hand Over of Samples Content	Hand Over of Samples Info	Mandatory / Once	Hand Over of Samples Content
1.5.1	Hand Over By Signed	Signature	Optional / Once	Hand Over By Signed
1.5.2	Hand Over By Name	Name	Mandatory / Once	Hand Over By Name
1.5.3	Hand Over By Post	Text	Optional / Once	Hand Over By Post

Level No.	Data Component	Type	Constraints	Definition
1.5.4	Hand Over By Date	Date	Mandatory / Once	Hand Over By Date
1.5.5	Hand Over By Time	Time	Mandatory / Once	Hand Over By Time
1.5.6	Received By Signed	Signature	Optional / Once	Received By Signed
1.5.7	Received By Name	Name	Mandatory / Once	Received By Name
1.5.8	Received By Post	Text	Mandatory / Once	Received By Post
1.5.9	Received By Date	Date	Mandatory / Once	Received By Date
1.5.10	Received By Time	Time	Mandatory / Once	Received By Time
1.5.11	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWCL
1.5.12	P W L Fax Number	Text	Optional / Once	Fax Number of PWCL

The code lists used in this message are listed below:

Data component: Sample Collection and Testing Content.Sample Details and Test Required.Sample Details Record Content. Sample Test Required

Code	Description
T_DESC	Transverse breaking load test in accordance with BS 6677:Part1:1986. (6 blocks per set)
W_DESC	Water absorption test in accordance with AS/NZS 4456.14-1997 (both 24 hours cold immersion method and 6 hours boiling method.) (6 blocks per set)
C_DESC	Characteristic compressive strength tests in accordance with GS Clause 11.75

	to 11.78 (includes dimension check) (8 blocks per set)
O_DESC	Overall dimension and thickness test in accordance with Annex B of BS 7263-1:2001 (8 flags per set)

Data component: Works Ordered Content.Works Ordered Record Content.Test Required

Code	Description
T_REQD	Transverse breaking load
W_REQD	Water absorption
C_REQD	Characteristic compressive Strength
O_REQD	Overall dimension and thickness

8.1.12.12 WDD-12.11 Form 2407 – Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) Message

WDD-12.11	Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) - Form 2407
Method	XML-based data standard

The following is a copy of the Form 2407 – Request for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) (Jan 2007) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION AND TESTING REQUEST FOR STRUCTURAL STEEL SECTIONS AND REINFORCEMENT CONNECTORS

PART A : Request *(To be completed and then faxed to **PWL**[1] by a project assistant inspectorate grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Location of samples to be collected _____
No. of samples to be collected _____
Site Contact Person _____ Site Tel. No. _____
Are preliminary test results by Fax required? ☐ Yes ☐ No
If yes, please provide Fax No. for the receipt of results. Fax No. _____

Requested by :-
Signed _____
Name _____
Post _____
Date _____

Sample Collection Details *(use separate collection form for each test request form for miscellaneous steel testing [No.C Eng D (GEO) 2404]*
Please test the accompanying samples of :- (Please select the appropriate box)

structural steel section for tensile test in accordance with ☐ BS 4360:1986 ☐ BS4360:1990
structural steel section for Charpy 'V' Notch impact test in accordance with ☐ BSEN 10045-1:1990
steel coupler for permanent elongation & tensile strength test in accordance with ☐ BS8110:1997 ☐ GS1992 with Corrigendum 2/2001
steel coupler for the slip & tensile strength test in accordance with ☐ GS 1992 Clause 15.33

Set No.	Client Sample Reference No.	Sample Description	Original Product Size (mm)	Sample Thickness As Received (mm)	Grade of Sample	Number of Specimen	Manufacturer	Remarks
1								
2								
3								
4								
5								
6								
7								
8								

PART B : Confirmation

(To be completed and then faxed to the contract laboratory by PWL staff)
Collected samples should be delivered to _____ (_____)
Contract allocated to provide the service _____
Date/Time of sample collection service request received :-
(____/____/____) / (____:____)
Date/Time of notifying the contract laboratory :-
(____/____/____) / (____:____)

Notified by :-
Signed _____
Name _____
Post _____

(To be completed by project site staff)
Agreed by :-
Signed _____
Name _____
Post _____
Date/Time (__/__/__) / (__:__)

(To be completed and faxed to PWL by contract laboratory staff)
Total No. of specimens (_____) collected by:-
Signed _____
Name _____
Post _____
Date/Time (__/__/__) / (__:__)

[1] Telephone number and fax number of PWL :-
Telephone No. : 2305 1270 / 2305 1440 Fax No. : 2759 2545

C Eng D (GEO) 2407 Jan 2007

The data structure of the WDD-12.11 Form 2407 – Request Form for Structural Steel Section and Reinforcement Connector Sample Collection Service (For PWCL) message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.11-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.11-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.11-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Steel Sections and Connectors	Sample Collection And Testing Request for Steel Sections and Connectors	-	Sample Collection And Testing Request for Steel Sections and Connectors Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number

Level No.	Data Component	Type	Constraints	Definition
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Collection and Testing Content	Sample Collection and Testing Info	Mandatory / Once	Sample Collection and Testing Content
1.3.1	Location Of Sample Collected	Text	Optional / Once	Location Of Sample Collected
1.3.2	Number Of Samples To Be Collected	Quantity	Optional / Once	Number Of Samples To Be Collected
1.3.3	Site Contact Person	Text	Optional / Once	Site Contact Person
1.3.4	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.5	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required
1.3.6	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.3.7	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.8	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.9	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.10	Requested By Date	Date	Mandatory / Once	Requested By Date

Level No.	Data Component	Type	Constraints	Definition
1.3.11	Sample Testing Details		Mandatory / Once	Sample Testing Details
1.3.11.1	Test To Be Performed	Code	Mandatory / Once Enumeration = T_1986,T_1990,I_1990,E_1997,E_2001,S_1992	Test To Be Performed
1.3.11.2	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.3.11.2.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.11.2.2	Sample Description	Text	Optional / Once	Sample Description
1.3.11.2.3	Original Product Size W	Measure	Optional / Once	Original Product Width (in mm)
1.3.11.2.4	Original Product Size L	Measure	Optional / Once	Original Product Length (in mm)
1.3.11.2.5	Original Product Size D	Measure	Optional / Once	Original Product Depth (in mm)
1.3.11.2.6	Sample Thickness As Received	Measure	Optional / Once	Sample Thickness As Received (in mm)
1.3.11.2.7	Grade Of Sample	Text	Optional / Once	Grade Of Sample
1.3.11.2.8	Number Of Specimen	Quantity	Optional / Once	Number Of Specimen

Level No.	Data Component	Type	Constraints	Definition
1.3.11.2.9	Manufacturer	Text	Optional / Once	Manufacturer
1.3.11.2.10	Remarks	Text	Optional / Once	Remarks
1.4	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.4.1	Delivered To	Text	Mandatory / Once	Delivered sample to which person
1.4.2	Delivered To Supplement	Text	Optional / Once	Delivered sample to which person To supplement
1.4.3	Contract Allocated	Text	Mandatory / Once	Contract Allocated
1.4.4	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.5	Collection Time	Time	Optional / Once	Sample Collection Time
1.4.6	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.7	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.8	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.9	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.10	Notified By Post	Text	Mandatory / Once	Notified By Post
1.5	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content

Level No.	Data Component	Type	Constraints	Definition
1.5.1	Agreed By Signed	Signature	Optional / Once	Agreed By Signed
1.5.2	Agreed By Name	Name	Mandatory / Once	Agreed By Name
1.5.3	Agreed By Post	Text	Optional / Once	Agreed By Post
1.5.4	Agreed By Date	Date	Mandatory / Once	Agreed By Date
1.5.5	Agreed By Time	Time	Mandatory / Once	Agreed By Time
1.5.6	Total Number Of Specimens	Quantity	Mandatory / Once	Total Number Of Specimens
1.5.7	Completed By Signed	Signature	Optional / Once	Completed By Signed
1.5.8	Completed By Name	Name	Mandatory / Once	Completed By Name
1.5.9	Completed By Post	Text	Mandatory / Once	Completed By Post
1.5.10	Completed By Date	Date	Mandatory / Once	Completed By Date
1.5.11	Completed By Time	Time	Mandatory / Once	Completed By Time
1.5.12	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.5.13	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

The code list used in this message is listed below:

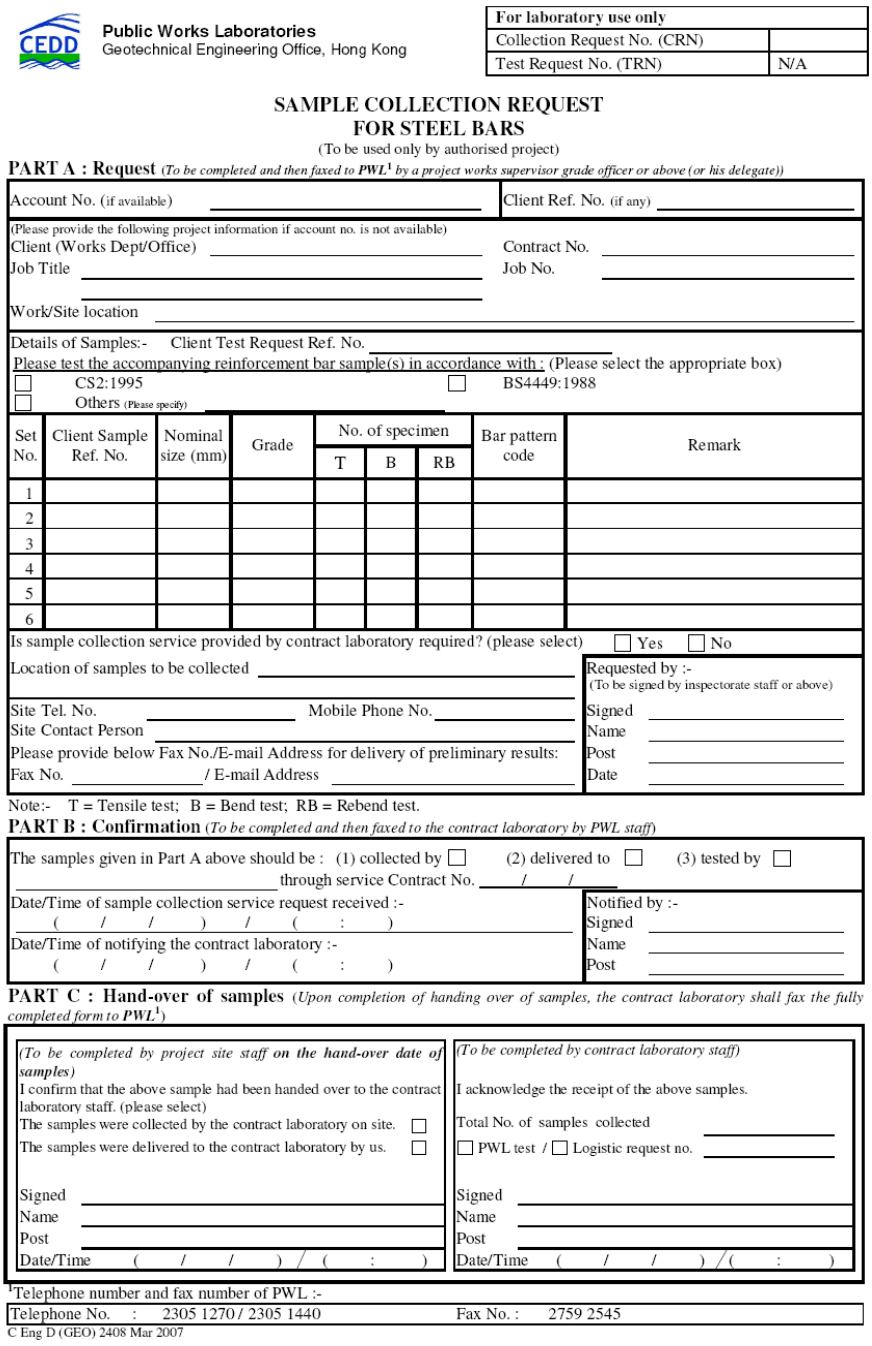
Data component: Sample Collection and Testing Content.Sample Testing Details.Test To Be Performed

Code	Description
T_1986	Structural steel section for tensile test in accordance with BS 4360:1986
T_1990	Structural steel section for tensile test in accordance with BS 4360:1990
I_1990	Structural steel section for Charpy 'V' Notch impact test in accordance with BSEN 10045-1:1990
E_1997	Steel coupler for permanent elongation & tensile strength test in accordance with BS 8110:1997
E_2001	Steel coupler for permanent elongation & tensile strength test in accordance with GS 1992 with Corrigendum 2/2001
S_1992	Steel coupler for the slip & tensile strength test in accordance with GS 1992 Clause 15:33

8.1.12.13 WDD-12.12 Form 2408 – Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory Message

WDD-12.12	Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory - Form 2408
Method	XML-based data standard

The following is a copy of the Form 2408 – Request for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory (Mar 2007) from CEDD Web site:



CEDD **Public Works Laboratories**
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	N/A

SAMPLE COLLECTION REQUEST
FOR STEEL BARS
(To be used only by authorised project)

PART A : Request *(To be completed and then faxed to PWL[1] by a project works supervisor grade officer or above (or his delegate))*

Account No. (if available) _____ Client Ref. No. (if any) _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site location _____

Details of Samples:- Client Test Request Ref. No. _____
Please test the accompanying reinforcement bar sample(s) in accordance with : (Please select the appropriate box)
☐ CS2:1995 ☐ BS4449:1988
☐ Others (Please specify) _____

Set No.	Client Sample Ref. No.	Nominal size (mm)	Grade	No. of specimen			Bar pattern code	Remark
				T	B	RB		
1								
2								
3								
4								
5								
6								

Is sample collection service provided by contract laboratory required? (please select) ☐ Yes ☐ No

Location of samples to be collected _____
Site Tel. No. _____ Mobile Phone No. _____
Site Contact Person _____
Please provide below Fax No./E-mail Address for delivery of preliminary results:
Fax No. _____ / E-mail Address _____

Requested by :-
(To be signed by inspectorate staff or above)
Signed _____
Name _____
Post _____
Date _____

Note:- T = Tensile test; B = Bend test; RB = Rebend test.

PART B : Confirmation *(To be completed and then faxed to the contract laboratory by PWL staff)*

The samples given in Part A above should be : (1) collected by ☐ (2) delivered to ☐ (3) tested by ☐
_____ through service Contract No. ____/____/____

Date/Time of sample collection service request received :-
(/ /) / (:)
Date/Time of notifying the contract laboratory :-
(/ /) / (:)

Notified by :-
Signed _____
Name _____
Post _____

PART C : Hand-over of samples *(Upon completion of handing over of samples, the contract laboratory shall fax the fully completed form to PWL[1])*

*(To be completed by project site staff **on the hand-over date of samples**)*
I confirm that the above sample had been handed over to the contract laboratory staff. (please select)
The samples were collected by the contract laboratory on site. ☐
The samples were delivered to the contract laboratory by us. ☐

Signed _____
Name _____
Post _____
Date/Time (/ /) / (:)

(To be completed by contract laboratory staff)
I acknowledge the receipt of the above samples.
Total No. of samples collected _____
☐ PWL test / ☐ Logistic request no. _____

Signed _____
Name _____
Post _____
Date/Time (/ /) / (:)

[1]Telephone number and fax number of PWL :-
Telephone No. : 2305 1270 / 2305 1440 Fax No. : 2759 2545

C Eng D (GEO) 2408 Mar 2007

The data structure of the WDD-12.12 Form 2408 – Request Form for Steel Bar Sample Collection and Testing Services Provided by PWL Contract Laboratory message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.12-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.12-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.12-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection Request for Steel Bars By Contract Lab	Sample Collection Request for Steel Bars By Contract Lab	-	Sample Collection Request for Steel Bars By Contract Lab Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample and Testing Details Content	Sample and Testing Details Info	Mandatory / Once	Sample and Testing Details Content
1.3.1	Client Test Request Reference Number	Identifier	Mandatory / Once	Client Test Request Reference Number
1.3.2	Test Request	Code	Mandatory / Once Enumeration = C,B,O	Test Requested
1.3.3	Other Description	Text	Optional / Once	Other Description
1.3.4	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.3.4.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.4.2	Nominal Size	Measure	Optional / Once	Nominal Size
1.3.4.3	Grade	Text	Optional / Once	Grade
1.3.4.4	Number Of Specimen T	Quantity	Optional / Once	Number Of Specimen for Tensile Test
1.3.4.5	Number Of Specimen B	Quantity	Optional / Once	Number Of Specimen for Bend Test
1.3.4.6	Number Of Specimen R B	Quantity	Optional / Once	Number Of Specimen for Rebend Test

Level No.	Data Component	Type	Constraints	Definition
1.3.4.7	Bar Pattern Code	Text	Optional / Once	Bar Pattern Code
1.3.4.8	Remark	Text	Optional / Once	Remark
1.4	Sample Collection Content	Sample Collection Info	Mandatory / Once	Sample Collection Content
1.4.1	Sample Collection Required	Boolean	Mandatory / Once	Sample Collection Required or not indicator
1.4.2	Location Of Sample Collected	Text	Optional / Once	Location Of Sample Collected
1.4.3	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.4.4	Mobile Phone Number	Text	Optional / Once	Mobile Phone Number
1.4.5	Site Contact Person	Text	Optional / Once	Site Contact Person
1.4.6	Delivery Fax Number	Text	Optional / Once	Delivery Fax Number
1.4.7	Delivery E Mail Address	Electronic Address	Optional / Once	Delivery E Mail Address
1.4.8	Requested By Signed	Signature	Optional / Once	Requested by Signature
1.4.9	Requested By Name	Name	Mandatory / Once	Requested by Name
1.4.10	Requested By Post	Text	Mandatory / Once	Requested by Post
1.4.11	Requested By Date	Date	Mandatory / Once	Requested by Date

Level No.	Data Component	Type	Constraints	Definition
1.5	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.5.1	Confirmation Mode	Code	Mandatory / Once Enumeration = C,D,T	Confirmation Mode (collected by/delivered to/tested by person)
1.5.2	Confirmation Description	Text	Mandatory / Once	Confirmation Description
1.5.3	Confirmation Contract Number	Identifier	Mandatory / Once	Confirmation Contract Number
1.5.4	Collection Date	Date	Optional / Once	Sample Collection Date
1.5.5	Collection Time	Time	Optional / Once	Sample Collection Time
1.5.6	Notifying Date	Date	Optional / Once	Notifying Date
1.5.7	Notifying Time	Time	Optional / Once	Notifying Time
1.5.8	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.5.9	Notified By Name	Name	Mandatory / Once	Notified By Name
1.5.10	Notified By Post	Text	Mandatory / Once	Notified By Post
1.6	Hand Over of Sampls Content	Hand Over of Sampls Info	Mandatory / Once	Hand Over of Sampls Content

Level No.	Data Component	Type	Constraints	Definition
1.6.1	Hand Over Mode	Code	Mandatory / Once Enumeration = C,D	Hand Over Mode
1.6.2	Hand Over By Signed	Signature	Optional / Once	Hand Over By Signed
1.6.3	Hand Over By Name	Name	Mandatory / Once	Hand Over By Name
1.6.4	Hand Over By Post	Text	Optional / Once	Hand Over By Post
1.6.5	Hand Over By Date	Date	Mandatory / Once	Hand Over By Date
1.6.6	Hand Over By Time	Time	Mandatory / Once	Hand Over By Time
1.6.7	Total Samples Collection	Quantity	Mandatory / Once	Total no. of sSamples collected
1.6.8	Received Number Mode	Code	Mandatory / Once Enumeration = P,L	Received Number Mode
1.6.9	Received Number	Identifier	Mandatory / Once	Received Number
1.6.10	Received By Signed	Signature	Optional / Once	Received By Signed
1.6.11	Received By Name	Name	Mandatory / Once	Received By Name
1.6.12	Received By Post	Text	Mandatory / Once	Received By Post

Level No.	Data Component	Type	Constraints	Definition
1.6.13	Received By Date	Date	Mandatory / Once	Received By Date
1.6.14	Received By Time	Time	Mandatory / Once	Received By Time
1.6.15	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.6.16	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

The code lists used in this message are listed below:

Data component: Sample and Testing Details Content Test Request

Code	Description
C	CS2:1995
B	BS4449:1988
O	Others

Data component: Confirmation Content Confirmation Mode

Code	Description
C	Collected By
D	Delivered To
T	Tested by

Data component: Hand Over of Sample Content Hand Over Mode

Code	Description

C	Collected By Contract Laboratory on site
D	Delivered To Contract Laboratory by us

Data component: Hand Over of Sample Content Received Number Mode

Code	**Description**
P	PWL test no.
L	Logistic request no.

8.1.12.14 WDD-12.13 Form 2410 – Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) Message

WDD-12.13	Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) - Form 2410
Method	XML-based data standard

The following is a copy of the Form 2410 – Request for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) (Jan 2005) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

SAMPLE COLLECTION SERVICE AND TESTING REQUEST (FOR PWL) FOR 7-WIRE STRAND

PART A : Request *(To be completed and then faxed to **PWL**[1] by a project assistant inspectorate grade officer or above (or his delegate))*

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Location of samples to be collected _____
No. of samples to be collected _____
Site Contact Person _____ Site Tel. No. _____
Are preliminary test results by Fax required? Yes No
If yes, please provide Fax No. for the receipt of results. Fax No. _____

Requested by :-
Signed _____
Name _____
Post _____
Date _____

Sample Collection Details *(use separate collection form for each test request form for miscellaneous steel testing [No.C Eng D (GEO) 2404]*

Please test the accompanying samples in accordance with BS 5896:1980

Set No.	Client sample reference No.	Sample description	Original product size (mm)	Grade of sample	Number of specimen	Manufacturer	Remarks
1							
2							
3							
4							
5							
6							
7							
8							

PART B : Confirmation *(To be completed and then faxed to the contract laboratory by PWL staff)*

Collected samples should be delivered to _____
Contract allocated to provide the service _____
Date/Time of sample collection service request received :-
(____/____/____) / (____:____)
Date/Time of notifying the contract laboratory :-
(____/____/____) / (____:____)

Notified by :-
Signed _____
Name _____
Post _____

(To be completed by project site staff)
Agreed by :-
Signed _____
Name _____
Post _____
Date/Time (/ /) (:)

(To be completed by contract laboratory staff)
Collected by :-
Signed _____
Name _____
Post _____
Date/Time (/ /) (:)

[1]Name, address, telephone number and fax number of PWL :-

PWL : PWCL (GM)
Address : PWCL Building, Cheung Yip Street, Kowloon Bay, Kowloon.
Telephone No. : 2305 1148 Fax No. : 2759 6424

C Eng D (GEO) 2410 Jan 2005

The data structure of the WDD-12.13 Form 2410 – Request Form for Sample Collection Service and Testing Request For 7-Wire Strand (For PWL) message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.13-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.13-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Sample Collection And Testing Request for Seven Wire Strand	Sample Collection And Testing Request for Seven Wire Strand	-	Sample Collection And Testing Request for Seven Wire Strand Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Collection Content	Sample Collection Info	Mandatory / Once	Sample Collection Content
1.3.1	Location Of Sample Collected	Text	Optional / Once	Location Of Sample to be collected
1.3.2	Number Of Samples To Be Collected	Quantity	Optional / Once	Number Of Samples To Be Collected
1.3.3	Site Contact Person	Text	Optional / Once	Site Contact Person
1.3.4	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.3.5	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required
1.3.6	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.3.7	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.3.8	Requested By Name	Name	Mandatory / Once	Requested By Name
1.3.9	Requested By Post	Text	Mandatory / Once	Requested By Post
1.3.10	Requested By Date	Date	Mandatory / Once	Requested By Date
1.3.11	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content

Level No.	Data Component	Type	Constraints	Definition
1.3.11.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.3.11.2	Sample Description	Text	Optional / Once	Sample Description
1.3.11.3	Original Product Size W	Measure	Optional / Once	Original Product Width (in mm)
1.3.11.4	Original Product Size L	Measure	Optional / Once	Original Product Length (in mm)
1.3.11.5	Original Product Size D	Measure	Optional / Once	Original Product Depth (in mm)
1.3.11.6	Grade Of Sample	Text	Optional / Once	Grade Of Sample
1.3.11.7	Number Of Specimen	Quantity	Optional / Once	Number Of Specimen
1.3.11.8	Manufacturer	Text	Optional / Once	Manufacturer
1.3.11.9	Sample Remarks	Text	Optional / Once	Sample Remarks
1.4	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.4.1	Delivered To	Text	Mandatory / Once	Collected samples is to be delivered to
1.4.2	Contract Allocated	Text	Mandatory / Once	Service is to be provided for allocated contract
1.4.3	Collection Date	Date	Optional / Once	Sample Collection Date
1.4.4	Collection Time	Time	Optional / Once	Sample Collection Time

Level No.	Data Component	Type	Constraints	Definition
1.4.5	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.4.6	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.4.7	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.4.8	Notified By Name	Name	Mandatory / Once	Notified By Name
1.4.9	Notified By Post	Text	Mandatory / Once	Notified By Post
1.5	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.5.1	Agreed By Signed	Signature	Optional / Once	Agreed By Signed
1.5.2	Agreed By Name	Name	Mandatory / Once	Agreed By Name
1.5.3	Agreed By Post	Text	Optional / Once	Agreed By Post
1.5.4	Agreed By Date	Date	Mandatory / Once	Agreed By Date
1.5.5	Agreed By Time	Time	Mandatory / Once	Agreed By Time
1.5.6	Collected By Signed	Signature	Optional / Once	Collected By Signed
1.5.7	Collected By Name	Name	Mandatory / Once	Collected By Name
1.5.8	Collected By Post	Text	Mandatory / Once	Collected By Post

Level No.	Data Component	Type	Constraints	Definition
1.5.9	Collected By Date	Date	Mandatory / Once	Collected By Date
1.5.10	Collected By Time	Time	Mandatory / Once	Collected By Time
1.5.11	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWL
1.5.12	P W L Fax Number	Text	Optional / Once	Fax Number of PWL

8.1.12.15 WDD-12.14 Form 2007 – Registration Form for Testing of Construction Materials Message

WDD-12.14	Registration Form for Testing of Construction Materials - Form 2007
Method	XML-based data standard

The following is a copy of the two-page Form 2007 – Registration Form for Testing of Construction Materials (Nov 2006) from CEDD Web site:

Page 1

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Account No.	
Date received	

REGISTRATION FORM FOR TESTING OF CONSTRUCTION MATERIALS

Works Dept/Office _____ PWP Item No. _____
Project Title _____ Contract No. _____
Job Title (if any) _____ Job No. (if any) _____
Work/Site location _____ (please attach a site location plan if available)

Request (To be completed and then emailed/faxed to PWLs (Note 1))

A. Please indicate below the required material testing services:

☐ Aggregates ☐ Soils (Give separate details of type of tests)
☐ Bituminous materials (Note 2) ☐ Steel reinforcement
☐ Concrete cubes and cores ☐ Steel section/pre-stressing strand
☐ Others (Please specify) _____

B. Collection service for concrete cubes, concrete cores and steel bars (Note 3) ☐ Required ☐ Not Required

Government Officer in charge of Contract
Name : _____
Post : _____
Tel./Fax No. : _____
Address : _____
Email : _____

Consultant in charge of Contract (if applicable)
Name : _____
Post/Company : _____
Tel./Fax No. : _____
Address : _____
Email : _____

Representative on site
Name : _____
Post : _____
Tel./Fax No. : _____

Samples shall normally be delivered by the following project site person(s) : (Note 4)
Name : _____ ; _____
Post : _____ ; _____
Tel./Fax No. : _____ ; _____

Site Contact Person for Sample Collection
Name : _____
Post : _____
Tel./Fax No. : _____
Email : _____

Recipient of Preliminary Results
Name : _____
Post : _____
Tel./Fax No. : _____
Email : _____

Recipient of Test Certificates (Note 5)
Name : _____
Post : _____
Tel./Fax No. : _____
Address : _____

Authorised Person to collect Test Certificate (Note 6)
Name : _____
Post : _____
Tel./Fax No. : _____

Notes :

1. The addresses of PWLs can be found at the CEDD website (http://www.cedd.gov.hk). Test request forms and PWL Test Directory can be downloaded from the downloading area of the same CEDD website. The sample reception hours of the PWLs are as follows:

		PWCL	PWRLs
Monday to Friday	(AM)	8:30 am to 12 noon	8:30 am to 11:45 am
	(PM)	1:45 pm to 5:00 pm	1:15 pm to 4:30 pm
Saturday	(AM only)	--	9:00 am to 11:30 am
Sunday & Public Holiday	No sample reception services		

2. When requesting tests for concrete cubes/cores or bituminous materials, mix design No / ID and mix details should be provided.
3. Sample collection service is not available for remote areas and outlying islands without a road link. A procedural brief for requesting sample collection and testing services will be provided after registration.
4. This information shall be provided for persons delivering test samples. Test samples shall not normally be accepted from non-government staff or staff unable to provide proof of government employment. In this respect, government staff includes resident staff and staff of consultants employed on government projects.
5. In the event of failure to deliver to the stated address, certificates may be delivered to the client's head office.
6. If certificates are to be collected, any number of persons may be nominated by providing separate details. Certificates will not be released to any person not pre-registered with the laboratory unless he is specifically authorised in writing to do so. Certificates not collected within two weeks may be sent by post to the client's head office.

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Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Account No.	
Date received	

Estimate of Testing Requirements

Date of contract commencement : _____ Date of estimated contract completion : _____

Material	Type of test	Estimated date of testing commencement	Estimate of total sample number per **six month** period from the date testing commences						
			Months						
			1-6	7-12	13-18	19-24	25-30	31-36	Remainder
Aggregates									
Bituminous materials									
Concrete cubes and cores									
Soils (In-situ)									
Soils (Laboratory)									
Steel reinforcement									
Steel section/ strand									
Others									

Notes :
Please use the space below or separate sheet if insufficient space above, or for explanatory notes, special requests etc.

Requested by :-
Name : _____
Post : _____ Signature : _____
Tel./Fax No. : _____
Email: : _____ Date : _____

C Eng D (GEO) 2007 (Sheet 2 of 2) Nov 2006

The data structure of the WDD-12.14 Form 2007 – Registration Form for Testing of Construction Materials message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.14-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.14-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.14-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing On Construction Materials	Testing On Construction Materials	-	Testing On Construction Materials Document
1.1	Lab Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Account Number	Identifier	Optional / Once	Account Number
1.1.2	Date Received	Date	Optional / Once	Date Received
1.2	Account Content	Account Info	Mandatory / Once	Account Content
1.2.1	Works Dept Office	Text	Optional / Once	Works Dept/Office
1.2.2	P W P Item Number	Identifier	Mandatory / Once	PWP Item Number
1.2.3	Project Title	Text	Mandatory / Once	Project Title
1.2.4	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Mandatory / Once	Work/Site Location
1.3	Test Requested Content	Test Requested Info	Mandatory / Once	Test Requested Content
1.3.1	Material Testing Services	Code	Mandatory / Multiple Enumeration = A,B,C,S,R,P,O	Material Testing Services
1.3.2	Others Description	Text	Optional / Once	Others Description
1.4	Collection Service Content	Collection Service Info	Mandatory / Once	Collection Service Content
1.4.1	Required Collection Service	Boolean	Mandatory / Once	Required Collection Service Indicator
1.4.2	Government Officer In Charge Name	Name	Mandatory / Once	Government Officer In Charge Name
1.4.3	Government Officer In Charge Post	Text	Optional / Once	Government Officer In Charge Post
1.4.4	Government Officer In Charge Telephone Number	Text	Optional / Once	Government Officer In Charge Telephone Number
1.4.5	Government Officer In Charge Fax Number	Text	Optional / Once	Government Officer In Charge Fax Number
1.4.6	Government Officer In Charge Address	Text	Optional / Once	Government Officer In Charge Address

Level No.	Data Component	Type	Constraints	Definition
1.4.7	Government Officer In Charge E Mail	Electronic Address	Optional / Once	Government Officer In Charge E-Mail
1.4.8	Consultant In Charge Name	Name	Optional / Once	Consultant In Charge Name
1.4.9	Consultant In Charge Post	Text	Optional / Once	Consultant In Charge Post
1.4.10	Consultant In Charge Telephone Number	Text	Optional / Once	Consultant In Charge Telephone Number
1.4.11	Consultant In Charge Fax Number	Text	Optional / Once	Consultant In Charge Fax Number
1.4.12	Consultant In Charge Address	Text	Optional / Once	Consultant In Charge Address
1.4.13	Consultant In Charge E Mail	Electronic Address	Optional / Once	Consultant In Charge E Mail
1.4.14	Representative On Site Name	Name	Mandatory / Once	Representative On Site Name
1.4.15	Representative On Site Post	Text	Optional / Once	Representative On Site Post
1.4.16	Representative On Site Telephone Number	Text	Optional / Once	Representative On Site Telephone Number
1.4.17	Representative On Site Fax Number	Text	Optional / Once	Representative On Site Fax Number
1.4.18	Delivered By Site Person One Name	Name	Optional / Once	Delivered By Site Person One Name
1.4.19	Delivered By Site Person One Post	Text	Optional / Once	Delivered By Site Person One Post

Level No.	Data Component	Type	Constraints	Definition
1.4.20	Delivered By Site Person One Telephone Number	Text	Optional / Once	Delivered By Site Person One Telephone Number
1.4.21	Delivered By Site Person One Fax Number	Text	Optional / Once	Delivered By Site Person One Fax Number
1.4.22	Delivered By Site Person Two Name	Name	Optional / Once	Delivered By Site Person Two Name
1.4.23	Delivered By Site Person Two Post	Text	Optional / Once	Delivered By Site Person Two Post
1.4.24	Delivered By Site Person Two Telephone Number	Text	Optional / Once	Delivered By Site Person Two Telephone Number
1.4.25	Delivered By Site Person Two Fax Number	Text	Optional / Once	Delivered By Site Person Two Fax Number
1.4.26	Site Contact Person for Sample Name	Name	Optional / Once	Site Contact Person for Sample Name
1.4.27	Site Contact Person for Sample Post	Text	Optional / Once	Site Contact Person for Sample Post
1.4.28	Site Contact Person for Sample Telephone Number	Text	Optional / Once	Site Contact Person for Sample Telephone Number
1.4.29	Site Contact Person for Sample Fax Number	Text	Optional / Once	Site Contact Person for Sample Fax Number
1.4.30	Site Contact Person for Sample E Mail	Electronic Address	Optional / Once	Site Contact Person for Sample E-Mail

Level No.	Data Component	Type	Constraints	Definition
1.4.31	Recipient of Results Name	Name	Mandatory / Once	Recipient of Results Name
1.4.32	Recipient of Results Post	Text	Optional / Once	Recipient of Results Post
1.4.33	Recipient of Results Telephone Number	Text	Optional / Once	Recipient of Results Telephone Number
1.4.34	Recipient of Results Fax Number	Text	Optional / Once	Recipient of Results Fax Number
1.4.35	Recipient of Results E Mail	Electronic Address	Optional / Once	Recipient of Results E Mail
1.4.36	Recipient of Test Certificates Name	Name	Mandatory / Once	Recipient of Test Certificates Name
1.4.37	Recipient of Test Certificates Post	Text	Optional / Once	Recipient of Test Certificates Post
1.4.38	Recipient of Test Certificates Telephone Number	Text	Optional / Once	Recipient of Test Certificates Telephone Number
1.4.39	Recipient of Test Certificates Fax Number	Text	Optional / Once	Recipient of Test Certificates Fax Number
1.4.40	Recipient of Test Certificates Address	Text	Optional / Once	Recipient of Test Certificates Address
1.4.41	Person to Collect Test Certificate Name	Name	Mandatory / Once	Person to Collect Test Certificate Name
1.4.42	Person to Collect Test Certificate Post	Text	Optional / Once	Person to Collect Test Certificate Post
1.4.43	Person to Collect Test Certificate Telephone Number	Text	Optional / Once	Person to Collect Test Certificate Telephone Number

Level No.	Data Component	Type	Constraints	Definition
1.4.44	Person to Collect Test Certificate Fax Number	Text	Optional / Once	Person to Collect Test Certificate Fax Number
1.5	Test Requirement Content	Test Requirements Info	Optional / Once	Test Requirement Content
1.5.1	Date of Contract Commencement	Date	Optional / Once	Date of Contract Commencement
1.5.2	Date of Estimated Contract Completion	Date	Optional / Once	Date of Estimated Contract Completion
1.5.3	Test Requirements Record Content	Test Requirements Record	Optional / Multiple	Test Requirements Record Content
1.5.3.1	Material Name	Code	Optional / Once Enumeration = A,B,C,I,L,R,P, O	Material Name
1.5.3.2	Type of Test	Text	Optional / Once	Type of Test
1.5.3.3	Estimated Date of Commencement	Date	Optional / Once	Estimated Date of Commencement
1.5.3.4	Estimated Total for Month 1-6	Quantity	Optional / Once	Estimated Total for Month 1-6
1.5.3.5	Estimated Total for Month 7-12	Quantity	Optional / Once	Estimated Total for Month 7-12
1.5.3.6	Estimated Total for Month 13-18	Quantity	Optional / Once	Estimated Total for Month 13-18
1.5.3.7	Estimated Total for Month 19-24	Quantity	Optional / Once	Estimated Total for Month 19-24

Level No.	Data Component	Type	Constraints	Definition
1.5.3.8	Estimated Total for Month 25-30	Quantity	Optional / Once	Estimated Total for Month 25-30
1.5.3.9	Estimated Total for Month 31-36	Quantity	Optional / Once	Estimated Total for Month 31-36
1.5.3.10	Estimated Total for Remainder	Quantity	Optional / Once	Estimated Total for Remainder
1.5.4	Notes	Text	Optional / Once	Notes
1.6	Requested By Content	Requested By Info	Mandatory / Once	Requested By Content
1.6.1	Requested By Name	Name	Mandatory / Once	Requested By Name
1.6.2	Requested By Post	Text	Optional / Once	Requested By Post
1.6.3	Requested By Telephone Number	Text	Optional / Once	Requested By Telephone Number
1.6.4	Requested By Fax Number	Text	Optional / Once	Requested By Fax Number
1.6.5	Requested By E Mail Address	Electronic Address	Optional / Once	Requested By E-Mail Address
1.6.6	Requested By Signature	Signature	Optional / Once	Requested By Signature
1.6.7	Requested By Date	Date	Mandatory / Once	Requested By Date

The code lists used in this message are listed below:

Data component: Test Requested Content.Material Testing Services

Code	Description
A	Aggregates
B	Bituminous materials
C	Concrete cubes and cores
I	Soils (In-situ)
L	Soils (Laboratory)
R	Steel reinforcement
P	Steel section/prestressing strand
O	Others

Data component: Test Requirement Content.Test Requirements Record Content.Material Name

Code	Description
A	Aggregates
B	Bituminous materials
C	Concrete cubes and cores
S	Soils
R	Steel reinforcement
P	Steel section/prestressing strand
O	Others

8.1.12.16 WDD-12.15 Form 2017 – Request Form for Calibration / Checking of Equipment Message

WDD-12.15	Request Form for Calibration / Checking of Equipment - Form 2017
Method	XML-based data standard

The following is a copy of the Form 2017 – Request for Calibration/Checking of Equipment (Jan 2005) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

REQUEST FORM FOR CALIBRATION/ CHECKING OF EQUIPMENT

For Calibration Unit use only
Test Request No.
Estimated completion date

Client _____ Client Ref. No. _____

To : PWCL - Calibration Unit

Please arrange to calibrate/check* the following equipment :

Type of equipment :
Manufacturer :
Equipment I.D. No. :
Model No. :
Serial No. :
Date of calibration/checking* expired :

The equipment shall be calibrated/checked* to the following requirements :

Scope of calibrated/checking* :
Calibration/Checking* ranges/values* :
Required accuracies :
Other requirements :

The above equipment is in good working condition and is ready for calibration/checking*.

Requested by
Signature : _____
Name : _____
Post : _____
Tel./Fax No. : _____
Date : _____

Notes : - The calibration/checking* ranges/values* and the required accuracies to be given above shall be the most stringent of those requirements specified in the methods for tests for which the equipment is intended to be used.

*Delete as appropriate

Remarks :

To be completed by PWCL/Calibration Unit

Completed by
Signature : _____
Name : _____
Post : _____
Date : _____

C Eng D (GEO) 2017 Jan 2005

The data structure of the WDD-12.15 Form 2017 – Request Form for Calibration / Checking of Equipment message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.15-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.15-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing On Calibration Or Checking Of Equipment	Testing On Calibration Or Checking Of Equipment	-	Testing On Calibration Or Checking Of Equipment Document
1.1	Calibrate or Check	Boolean	Mandatory / Once	Select Calibrate or Check
1.2	Calibration Unit Use Content	Calibration Unit Use Info	Optional / Once	Calibration Unit Use Content
1.2.1	Test Request Number	Identifier	Optional / Once	Test Request Number
1.2.2	Estimated Completion Date	Date	Optional / Once	Estimated Completion Date
1.3	Account Content	Account Info	Mandatory / Once	Account Content
1.3.1	Client	Text	Mandatory / Once	Name of Client
1.3.2	Client Reference Number	Identifier	Mandatory / Once	Client Reference Number
1.4	Equipment Content	Equipment Info	Mandatory / Once	Equipment Content
1.4.1	Type Of Equipment	Text	Mandatory / Once	Type Of Equipment

Level No.	Data Component	Type	Constraints	Definition
1.4.2	Manufacturer	Text	Optional / Once	Manufacturer
1.4.3	Equipment I D Number	Identifier	Optional / Once	Equipment I D Number
1.4.4	Model Number	Identifier	Optional / Once	Model Number
1.4.5	Serial Number	Identifier	Optional / Once	Serial Number
1.4.6	Date Of Expired	Date	Optional / Once	Date Of Expired
1.5	Calibrate or Checking Requirements	Calibrate or Checking Requirements Info	Mandatory / Once	Calibrate or Checking Requirements
1.5.1	Scope	Text	Optional / Once	Scope
1.5.2	Range or Value	Boolean	Optional / Once	Range or Value
1.5.3	Definition of Ranges Values	Text	Optional / Once	Definition of Ranges Values
1.5.4	Required Accuracies	Text	Optional / Once	Required Accuracies
1.5.5	Other Requirements	Text	Optional / Once	Other Requirements
1.6	Requester Content	Requester Info	Mandatory / Once	Requester Content
1.6.1	Requested By Signature	Signature	Optional / Once	Requested By Signature
1.6.2	Requested By Name	Name	Mandatory / Once	Requested By Name

Level No.	Data Component	Type	Constraints	Definition
1.6.3	Requested By Post	Text	Mandatory / Once	Requested By Post
1.6.4	Requested By Telephone Number	Text	Optional / Once	Requested By Telephone Number
1.6.5	Requested By Fax Number	Text	Optional / Once	Requested By Fax Number
1.6.6	Requested By Date	Date	Mandatory / Once	Requested By Date
1.6.7	Remarks	Text	Optional / Once	Remarks
1.7	Completed By Content	Completed By Info	Mandatory / Once	Completed By Content
1.7.1	Completed By Signature	Signature	Optional / Once	Completed By Signature
1.7.2	Completed By Name	Name	Mandatory / Once	Completed By Name
1.7.3	Completed By Post	Text	Optional / Once	Completed By Post
1.7.4	Completed By Date	Date	Optional / Once	Completed By Date

8.1.12.17 WDD-12.16 Form 2409 – Request Form for Steel Fabric Sample Collection Service (For PWCL) Message

WDD-12.16	Request Form for Steel Fabric Sample Collection Service (For PWCL) - Form 2409
Method	XML-based data standard

The following is a copy of the Form 2409 – Request for Steel Fabric Sample Collection Serivce (For PWCL) (Jan 2005) from CEDD Web site:

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

REQUEST FORM FOR SAMPLE COLLECTION SERVICE (FOR PWCL)
STEEL FABRIC

PART A : Request *(To be completed and then faxed to **PWCL**[1] by a project assistant inspectorate grade officer or above (or his delegate))*

Job _____ Job/Contract No. _____
Client (Dept/Office) _____ Client Ref. No. _____
No. of samples to be collected _____
Location of samples to be collected _____
_____
Site contact person _____ Site Tel. No. _____
Are preliminary test results by Fax required? Yes/No*
If yes, please provide Fax No. for the receipt of results. Fax No. _____

Requested by :-
Signed _____
Name _____
Post _____
Date _____

Sample Collection Details *(use separate collection form for each test request form for miscellaneous steel testing [No.C Eng D (GEO) 2404]*
Please test the accompanying samples in accordance with BS 4483:1985

Client Sample No.	Sample Description	Type of Wire	BS Reference No.	Diameter of Longitudinal	Diameter of Cross Wire	Grade of Wire	Manufacturer	Remarks

PART B : Confirmation *(To be completed and then faxed to the contract laboratory by PWCL staff)*

Collected samples should be delivered to _____
Contract allocated to provide the service _____
Date/Time of sample collection service request received :-
(/ /) / (:)
Date/Time of notifying the contract laboratory :-
(/ /) / (:)

Test Request No. :
Notified by :-
Signed _____
Name _____
Post _____

(To be completed by project site staff)
Agreed by :-
Signed _____
Name _____
Post _____
Date/Time (/ /) / (:)

(To be completed by contract laboratory staff)
Collected by :-
Signed _____
Name _____
Post _____
Date/Time (/ /) / (:)

*Delete as appropriate

[1]Name, address, telephone number and fax number of PWCL :-

PWL : PWCL (GM)
Address : PWCL Building, Cheung Yip Street, Kowloon Bay, Kowloon.
Telephone No. : 2305 1283 Fax No. : 2759 2534

C Eng D (GEO) 2409 Jan 2005

The data structure of the WDD-12.16 Form 2409 – Request Form for Steel Fabric Sample Collection Service (For PWCL) message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.16-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.16-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Steel Fabric Sample Collection Service	Steel Fabric Sample Collection Service	-	Steel Fabric Sample Collection Service Document
1.1	Request Content	Sample Collection Info	Mandatory / Once	Request Content
1.1.1	Job	Text	Optional / Once	Job
1.1.2	Job Contract Number	Identifier	Optional / Once	Job Contract Number
1.1.3	Client	Text	Optional / Once	Client (Dept / Office)
1.1.4	Client Reference Number	Identifier	Optional / Once	Client Reference Number
1.1.5	Number Of Sample Collected	Quantity	Optional / Once	Number Of Samples To Be Collected
1.1.6	Location Of Sample Collected	Text	Optional / Once	Location Of Sample Collected
1.1.7	Site Contact Person	Name	Optional / Once	Site Contact Person
1.1.8	Site Telephone Number	Text	Optional / Once	Site Telephone Number
1.1.9	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required

Level No.	Data Component	Type	Constraints	Definition
1.1.10	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.1.11	Requested By Signed	Signature	Optional / Once	Requested By Signed
1.1.12	Requested By Name	Name	Mandatory / Once	Requested By Name
1.1.13	Requested By Post	Text	Mandatory / Once	Requested By Post
1.1.14	Requested By Date	Date	Mandatory / Once	Requested By Date
1.1.15	Sample Collection Record Content	Sample Collection Record	Optional / Multiple	Sample Collection Record Content
1.1.15.1	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.1.15.2	Sample Description	Text	Optional / Once	Sample Description
1.1.15.3	Type Of Wire	Text	Optional / Once	Type Of Wire
1.1.15.4	B S Reference Number	Identifier	Optional / Once	B S Reference Number
1.1.15.5	Diameter Of Longitudinal	Measure	Optional / Once	Diameter Of Longitudinal
1.1.15.6	Diameter Of Cross Wire	Measure	Optional / Once	Diameter Of Cross Wire
1.1.15.7	Grade Of Wire	Text	Optional / Once	Grade Of Wire
1.1.15.8	Manufacturer	Text	Optional / Once	Manufacturer

Level No.	Data Component	Type	Constraints	Definition
1.1.15.9	Remarks	Text	Optional / Once	Remarks
1.2	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.2.1	Delivered To	Text	Mandatory / Once	Delivered To
1.2.2	Contract Allocated	Text	Mandatory / Once	Contract Allocated
1.2.3	Collection Date	Date	Optional / Once	Sample Collection Date
1.2.4	Collection Time	Time	Optional / Once	Sample Collection Time
1.2.5	Notifying Date	Date	Optional / Once	Laboratory Notifying Date
1.2.6	Notifying Time	Time	Optional / Once	Laboratory Notifying Time
1.2.7	Test Request Number	Identifier	Optional / Once	Test Request Number
1.2.8	Notified By Signed	Signature	Optional / Once	Notified By Signed
1.2.9	Notified By Name	Name	Mandatory / Once	Notified By Name
1.2.10	Notified By Post	Text	Mandatory / Once	Notified By Post
1.3	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.3.1	Agreed By Signed	Signature	Optional / Once	Agreed By Signed

Level No.	Data Component	Type	Constraints	Definition
1.3.2	Agreed By Name	Name	Mandatory / Once	Agreed By Name
1.3.3	Agreed By Post	Text	Optional / Once	Agreed By Post
1.3.4	Agreed By Date	Date	Mandatory / Once	Agreed By Date
1.3.5	Agreed By Time	Time	Mandatory / Once	Agreed By Time
1.3.6	Collected By Signed	Signature	Optional / Once	Collected By Signed
1.3.7	Collected By Name	Name	Mandatory / Once	Collected By Name
1.3.8	Collected By Post	Text	Mandatory / Once	Collected By Post
1.3.9	Collected By Date	Date	Mandatory / Once	Collected By Date
1.3.10	Collected By Time	Time	Mandatory / Once	Collected By Time
1.3.11	P W L Telephone Number	Text	Optional / Once	Telephone Number of PWCL
1.3.12	P W L Fax Number	Text	Optional / Once	Fax Number of PWCL

8.1.12.18 WDD-12.17 Form 2509 – Request Form for Soil Testing For Checking of Compliance with Specification Requirements Message

WDD-12.17	Request Form for Soil Testing For Checking of Compliance with Specification Requirements - Form 2509
Method	XML-based data standard

The following is a copy of the Form 2509 – Request for Soil Testing For Checking of Compliance with Specification Requirements (Mar 2006) from CEDD Web site:

Page 1

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TESTING REQUEST FOR SOIL MATERIALS FOR CHECKING OF COMPLIANCE WITH SPECIFICATION REQUIREMENTS

(Please read guidance notes attached prior to completion of this form)

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)

Client (Works Dept/Office) _____ Contract No. _____

Job Title _____ Job No. _____

Work/Site Location _____

Sampling location (1) : _____

Sample type (2) : _____

For laboratory use only		Client Sample Ref. No. (4)	Tests requested (5)	Drying method (6)	Additional information and requirements (6)
Lab. Sample Ref. No.	Received (3) sample mass				

(The following part is recommended to be vetted and signed by a qualified professional engineer responsible for checking of compliance.)

Requested by

Signature : _____ Consultant (If applicable) : _____

Name : _____

Post : _____

Tel./Fax No. : _____

Date : _____

Samples to be delivered by (7)

Name : _____

Post : _____

Tel./Fax No. : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person (8).

C Eng D (GEO) 2509 (Sheet 1 of 2) Mar 2006

Page 2

Guidance Notes on Completion of Request Form for Soil Testing for Checking of Compliance with Specification Requirements

General Guidance

A separate form should be completed for samples from each sampling location. Each form should be signed and dated. It is recommended that the request form be vetted and signed by a qualified professional engineer responsible for checking of compliance (preferably the Engineer's Representative for the Contract or equivalent). For laboratory tests, the request form must accompany the samples, which should be delivered to the testing laboratory by trained technical or assistant professional staff of the client. Please note that the client who has made the request for testing is responsible for ensuring that the test samples have been selected in accordance with the specification requirements and are representative, and that the samples are delivered to the testing laboratory by personnel of appropriate level, using secure means, with clear indelible labels/markings on the samples for identification to ensure traceability.

Notes

(1) Please give location e.g. identifiable from a drawing or figure (with grid references) for the contract/job.

(2) Please indicate sample type, e.g. bulk, block, U76, U100, Mazier or piston samples.

(3) Please ensure that the mass of sample provided is sufficient for all the tests requested for each sample. Reference should be made to the relevant testing standard for minimum mass requirements.

(4) For traceability, each sample should have a unique identification number.

(5) Please specify the testing standard to be used and the test method numbers (as given in the specification), e.g. GEO Report No. 36 Test 2.4.3, for the tests requested for each sample.

(6) Where required by the testing standard, additional information required for the test, e.g. on soil type (viz. colluvial, residual, saprolitic, alluvial or marine soil), oven-drying temperature, shall be provided to the testing laboratory. Any other special requirements which are outside the scope of testing standard should be agreed with the laboratory.

(7) The person who will be escorting the samples to the testing laboratory should be nominated by the engineer who signs the form.

(8) If test results are to be collected, any number of persons may be nominated by providing separate details. Test results will not be released to persons not registered with the laboratory unless they can provide a letter of authorization. Test results not collected within two weeks will be sent by post to the client's Head Office.

C Eng D (GEO) 2509 (Sheet 2 of 2) Mar 2006

The data structure of the WDD-12.17 Form 2509 – Request Form for Soil Testing For Checking of Compliance with Specification Requirements message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.17-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.17-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Testing Request for Soil Materials With Specification Requirements	Testing Request for Soil Materials With Specification Requirements	-	Testing Request for Soil Materials With Specification Requirements Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title

Level No.	Data Component	Type	Constraints	Definition
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Sample Content	Sample Info	Optional / Once	Sample Content
1.3.1	Sampling Location	Text	Optional / Once	Sampling Location
1.3.2	Sampling Type	Text	Optional / Once	Sampling Type
1.4	Test Request Content	Test Request Info	Optional / Multiple	Test Request Content
1.4.1	Lab Sample Reference Number	Identifier	Optional / Once	Lab Sample Reference Number
1.4.2	Received Sample Mass	Measure	Optional / Once	Received Sample Mass
1.4.3	Client Sample Reference Number	Identifier	Optional / Once	Client Sample Reference Number
1.4.4	Test Requested	Text	Optional / Once	Test Requested
1.4.5	Drying Method	Text	Optional / Once	Drying Method
1.4.6	Additional Information And Requirements	Text	Optional / Once	Additional Information And Requirements
1.5	Confirmation Content	Confirmation Info	Mandatory / Once	Confirmation Content
1.5.1	Requested By Signature	Signature	Optional / Once	Requested By Signature

Level No.	Data Component	Type	Constraints	Definition
1.5.2	Requested By Name	Name	Mandatory / Once	Requested By Name
1.5.3	Requested By Post	Text	Mandatory / Once	Requested By Post
1.5.4	Requested By Telephone Number	Text	Optional / Once	Requested By Telephone Number
1.5.5	Requested By Fax Number	Text	Optional / Once	Requested By Fax Number
1.5.6	Requested By Date	Date	Mandatory / Once	Requested By Date
1.5.7	Consultant Signature	Signature	Optional / Once	Consultant Signature
1.5.8	Consultant Name	Name	Optional / Once	Consultant Name
1.5.9	Consultant Post	Text	Optional / Once	Consultant Post
1.5.10	Consultant Telephone Number	Text	Optional / Once	Consultant Telephone Number
1.5.11	Consultant Fax Number	Text	Optional / Once	Consultant Fax Number
1.5.12	Consultant Date	Date	Optional / Once	Consultant Date
1.5.13	Delivered By Name	Name	Mandatory / Once	Delivered By Name
1.5.14	Delivered By Post	Text	Mandatory / Once	Delivered By Post
1.5.15	Delivered By Telephone Number	Text	Optional / Once	Delivered By Telephone Number

Level No.	Data Component	Type	Constraints	Definition
1.5.16	Delivered By Fax Number	Text	Optional / Once	Delivered By Fax Number
1.6	To Be Delivered Content	To Be Delivered	Optional / Once	Test certificate delivery information
1.6.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.6.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.6.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

8.1.12.19 WDD-12.18 Form 2510 – Request Form for Laboratory Soil Testing Message

WDD-12.18	Request Form for Laboratory Soil Testing - Form 2510
Method	XML-based data standard

The following is a copy of the two-page Form 2510 – Request for Laboratory Soil Testing (Nov 2006) from CEDD Web site:

Page 1

Public Works Laboratories
Geotechnical Engineering Office, Hong Kong

For laboratory use only	
Collection Request No. (CRN)	
Test Request No. (TRN)	

TEST REQUEST FOR LABORATORY SOIL TESTING

(Please read guidance notes attached prior to completion of this form)

Account No. (if available) _____ Client Test Request Ref. No. _____

(Please provide the following project information if account no. is not available)
Client (Works Dept/Office) _____ Contract No. _____
Job Title _____ Job No. _____
Work/Site Location _____

Test requested (Select appropriate box)	Description of test	PWLTM No.
☐ **Test 2.3.2** ☐**A**(105±5°C) / ☐**B**(45±5°C) of GEO Report No. 36.	Determination of Moisture Content by oven drying method.	SOL 2.2(a)/ 2.2(b)
☐ **Test Method** ☐**5.1**(45±5°C) / ☐**5.2** (105±5°C) of Geospec 3.		GSP 5.1/5.2
☐ **Test 2.3.2C** of GEO Report No. 36.	Comparative test for the determination of Moisture Content by oven drying.	SOL 2.2 (c)
☐ **Test Method 5.3** of Geospec 3.		GSP 5.3
☐ **Test 2.4.3** of GEO Report No. 36.	Determination of Liquid Limit by the cone penetrometer method.	SOL 2.4
☐ **Test 2.5.3** of GEO Report No. 36.	Determination of Plastic Limit, Plasticity Index and Liquidity Index.	SOL 2.8
☐ **Test Method 6.1** of Geospec 3.	Determination of Liquid Limit, Plastic Limit and Plasticity Index.	GSP 6.1
☐ **Test Method 6.2** of Geospec 3.	Determination of Liquidity Index.	GSP 6.2
☐ **Test 2.9.2**☐**A**/☐**B** of GEO Report No. 36.	Determination of Particle Size Distribution by wet sieving with or without dispersant, using ☐ method A or ☐ method B.	SOL 2.10(a)/ 2.10(b)
☐ **Test Method** ☐**8.1**/ ☐**8.2** of Geospec 3.		GSP 8.1/8.2
☐ **Test 2.9.5**☐**A**/☐**B** GEO Report No. 36.	Determination of Particle Size Distribution by the hydrometer method with or without dispersant, using ☐ method A or ☐ method B.	SOL 2.11(a)/ 2.11(b)
☐ **Test Method** ☐**8.5**/ ☐**8.6** of Geospec 3.		GSP 8.5/8.6
☐ **Test 2.9.6** of GEO Report No. 36.	Construction of a continuous Particles Size Distribution Curve from the results of wet-sieving and sedimentation tests.	SOL 2.12
☐ **Test Method 8.7** of Geospec 3.		GSP 8.7
☐ **Test** ☐**4.3.3(A)**/ ☐**4.3.3(B)**/ ☐**4.3.4(A)**/ ☐**4.3.4(B)** of GEO Report No. 36.	Determination of Dry Density & Moisture Content Relationship of soil (using 1000cc or CBR mould and 2.5 kg Rammer).	SOL4.1(a)/4.1(b)/4.1(c)/ 4.1(d)
☐ **Test Method 10.** (☐**1** /☐ **2** / ☐**3** / ☐**4**) of Geospec 3.		GSP 10.1/10.2/10.3/10.4
☐ **BS1377:1975 Test 13 with modification.**	Determination of Dry Density & Moisture Content Relationship of soil (using 1000cc or CBR mould and 4.5 kg Rammer).	SOL 4.2(b)
☐ **Test Method 10.** (☐**5** / ☐**6** / ☐**7** / ☐**8**) of Geospec 3.		GSP 10.5/10.6/10.7/10.8)
☐ **BS1377:1990 Cl. 7 with modification.**	Determination of laboratory CBR test with following conditions:- (Degree of compaction: _____ %; moisture content: _____ %; ☐ soaked /☐ unsoaked; , surcharge : _____ kPa).	SOL 4.3
☐ **Test Method 12.1** of Geospec 3.		GSP 12.1
☐ **Other** (Please specify) _____		

Sample details:-
Sampling/Testing location(1) : _____

Sample type: ☐ bulk samples/ ☐ vibro-cores/ ☐ others (Please indicate)(2) : _____

Sample no.(3)	Additional information(4)	Remark

Other information/requirement:-
Oven-drying temperature of sample shall be : ☐ 45±5°C / ☐ 105±5°C / ☐ Microwave Oven.
Preliminary test results ☐ is/ ☐ is not required. If require, please state Fax no.:- _____

Samples(s) delivery supervised by (5) :-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax no. : _____
Date : _____

Test(s) requested by :-
Signature : _____
Name : _____
Post/Affiliation : _____
Tel./Fax no. : _____
Date : _____

Fill in the box below the name and address to which the test certificate(s) should be sent or else mark ☐ "To be collected" if the client requests to collect the certificate(s) from the laboratory in person.

C Eng D (GEO) 2510 (Sheet 1 of 2) Nov 2006

Page 2

Guidance Notes on Completion of Request Form for Laboratory Soil Testing

General Guidance

A separate form should be completed for samples from each sampling/testing location. Each form should be signed and dated. It is recommended that the request form be vetted and signed by a qualified professional engineer responsible for checking of compliance (preferably the Engineer's Representative for the Contract or equivalent). The request form must accompany the samples, which should be delivered to the testing laboratory by trained technical or assistant professional staff of the client. Please note that the client who has made the request for testing is responsible for ensuring that the test samples/positions have been selected in accordance with the specification requirements and are representative, and that the samples are delivered to the testing laboratory by personnel of appropriate level, using secure means, with clear indelible labels/markings on the samples for identification to ensure traceability.

Notes

(1) Please give location identifiable from a drawing or figure (with grid references or chainage) for the contract/job, e.g. samples taken from or tests to be carried out at positions at level X mPD, chainage Y of embankment/fill platform/slope as shown on drawing/figure no. Z.

(2) If undisturbed samples are provided, please indicate sample type, e.g. block, U76, U100, Mazier or piston samples.

(3) For traceability, each sample/test position should have a unique identification number.

(4) Where required by the testing standard, additional information required for the test, e.g. on soil type (viz. colluvial, residual, saprolitic, alluvial or marine soil) and oven-drying temperature, shall be provided to the testing laboratory.

(5) The person who will be escorting the samples to the testing laboratory should be nominated by the engineer who signs the form.

(6) If certificates are to be collected, any number of persons may be nominated by providing separate details on Form C Eng D (GEO) 2007. Certificates will not be released to persons not registered with the laboratory unless they can provide a letter of authorization. Certificates not collected within two weeks will be sent by post to the client's Head Office.

(7) Please ensure that the mass of sample provided is sufficient for all the tests requested for each sample. Reference should be made to the relevant testing standard for minimum mass requirements.

C Eng D (GEO) 2510 (Sheet 2 of 2) Nov 2006

The data structure of the WDD-12.18 Form 2510 – Request Form for Laboratory Soil Testing message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.18-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-12.18-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-12.18-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Test Request for Laboratory Soil Testing	Test Request for Laboratory Soil Testing	-	Test Request for Laboratory Soil Testing Document
1.1	Lab Info Content	Lab Info	Optional / Once	Information filled by laboratory
1.1.1	Collection Request Number	Identifier	Optional / Once	Collection Request Number (CRN)
1.1.2	Test Request Number	Identifier	Optional / Once	Test Request Number (TRN)
1.2	Account Info Content	Account Info	Optional / Once	Client account record
1.2.1	Account Number	Identifier	Optional / Once	Account Number
1.2.2	Client Test Request Reference Number	Identifier	Optional / Once	Client Test Request Reference Number
1.2.3	Client	Text	Optional / Once	Client (Works Dept / Office)
1.2.4	Contract Number	Identifier	Optional / Once	Contract Number
1.2.5	Job Title	Text	Optional / Once	Job Title
1.2.6	Job Number	Identifier	Optional / Once	Job Number
1.2.7	Work Site Location	Text	Optional / Once	Work / Site Location
1.3	Test Requested Content	Test Requested Info	Optional / Once	Test Requested Content

Level No.	Data Component	Type	Constraints	Definition
1.3.1	Determination of Moisture Content Info	Determination of Moisture Content	Optional / Once	Determination of Moisture Content Info
1.3.1.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.3.2A,T2.3.2B,TM5.1,TM5.2	Test Requested Name
1.3.1.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3,4	PWLTM Number
1.3.2	Comparative Test for Determination of Moisture Content Info	Comparative Test for Determination of Moisture Content	Optional / Once	Comparative Test for Determination of Moisture Content Info
1.3.2.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.3.2C,TM5.3	Test Requested Name
1.3.2.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.3	Determination of Liquid Limit By The Cone Penetrometer Method Info	Determination of Liquid Limit By The Cone Penetrometer Method	Optional / Once	Determination of Liquid Limit By The Cone Penetrometer Method Info

Level No.	Data Component	Type	Constraints	Definition
1.3.3.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.4.3	Test Requested Name
1.3.3.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.4	Determination of Plastic Limit Info	Determination of Plastic Limit	Optional / Once	Determination of Plastic Limit Info
1.3.4.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.5.3	Test Requested Name
1.3.4.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.5	Determination of Liquid Limit Info	Determination of Liquid Limit	Optional / Once	Determination of Liquid Limit Info
1.3.5.1	Test Requested Name	Code	Mandatory / Once Enumeration = TM6.1	Test Requested Name
1.3.5.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number

Level No.	Data Component	Type	Constraints	Definition
1.3.6	Determination of Liquidity Index Info	Determination of Liquidity Index	Optional / Once	Determination of Liquidity Index Info
1.3.6.1	Test Requested Name	Code	Mandatory / Once Enumeration = TM6.2	Test Requested Name
1.3.6.2	P W L T M Number	Code	Optional / Once Enumeration = 1	PWLTM Number
1.3.7	Determination of Particle Size Distribution By Wet Sieving Info	Determination of Particle Size Distribution By Wet Sieving	Optional / Once	Determination of Particle Size Distribution By Wet Sieving Info
1.3.7.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.9.2A,T2.9.2B,TM8.1,TM8.2	Test Requested Name
1.3.7.2	Requested Using Method	Code	Mandatory / Once Enumeration = A,B	Requested Using Method
1.3.7.3	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3,4	PWLTM Number

Level No.	Data Component	Type	Constraints	Definition
1.3.8	Determination of Particle Size Distribution By Hydrometer Method Info	Determination of Particle Size Distribution By Hydrometer Method	Optional / Once	Determination of Particle Size Distribution By Hydrometer Method Info
1.3.8.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.9.5A,T2.9.5B,TM8.5,TM8.6	Test Requested Name
1.3.8.2	Requested Using Method	Code	Mandatory / Once Enumeration = A,B	Requested Using Method
1.3.8.3	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3,4	PWLTM Number
1.3.9	Construction of Continuous Size Distribution Curve Info	Construction of Continuous Size Distribution Curve	Optional / Once	Construction of Continuous Size Distribution Curve Info
1.3.9.1	Test Requested Name	Code	Mandatory / Once Enumeration = T2.9.6,TM8.7	Test Requested Name

Level No.	Data Component	Type	Constraints	Definition
1.3.9.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2	PWLTM Number
1.3.10	Determination of Dry Density and Moisture Content 2point5 kg Rammer Info	Determination of Dry Density and Moisture Content 2point5 kg Rammer	Optional / Once	Determination of Dry Density and Moisture Content 2point5 kg Rammer Info
1.3.10.1	Test Requested Name	Code	Mandatory / Once Enumeration = T4.3.3A,T4.3.3B,T4.3.4A,T4.3.4B,TM10.1,TM10.2,TM10.3,TM10.4	Test Requested Name
1.3.10.2	P W L T M Number	Code	Mandatory / Once Enumeration = 1,2,3,4,5,6,7,8	PWLTM Number
1.3.11	Determination of Dry Density and Moisture Content 4point5 kg Rammer Info	Determination of Dry Density and Moisture Content 4point5 kg Rammer	Optional / Once	Determination of Dry Density and Moisture Content 4point5 kg Rammer Info

Level No.	Data Component	Type	Constraints	Definition
1.3.11.1	Test Requested Name	Code	Mandatory / Once Enumeration = T13,TM10.5,TM10.6,TM10.7,TM10.8	Test Requested Name
1.3.11.2	P W L T M Number	Code	Optional / Once Enumeration = 1,2,3,4,5	PWLTM Number
1.3.12	Determination of Laboratory CBR Info	Determination of Laboratory C B R	Optional / Once	Determination of Laboratory CBR Info
1.3.12.1	Test Requested Name	Code	Mandatory / Once Enumeration = CL7,TM12.1	Test Requested Name
1.3.12.2	Degree of Compaction	Percent	Mandatory / Once	Degree of Compaction (in %)
1.3.12.3	Moisture Content	Percent	Mandatory / Once	Moisture Content (in %)
1.3.12.4	Is Soaked	Boolean	Mandatory / Once	Is Soaked or not Indicator
1.3.12.5	Surcharge	Measure	Mandatory / Once	Surcharge (in kPa)
1.3.12.6	P W L T M Number	Code	Mandatory / Once Enumeration = 1,2	PWLTM Number

Level No.	Data Component	Type	Constraints	Definition
1.3.13	Others	Boolean	Optional / Once	Others
1.3.14	Other Description	Text	Optional / Once	Other Description
1.4	Sample Details Content	Sample Details Info	Optional / Once	Detail information of the sample
1.4.1	Sample Testing Location	Text	Optional / Once	Sample Testing Location
1.4.2	Sample Type	Code	Optional / Once Enumeration = B,V,O	Sample Type
1.4.3	Other Sample Type	Text	Optional / Once	Other Sample Type
1.4.4	Sample Details Record Content	Sample Details Record	Optional / Multiple	Sample Details Record Content
1.4.4.1	Sample Number	Identifier	Optional / Once	Sample Number
1.4.4.2	Additional Information	Text	Optional / Once	Additional Information
1.4.4.3	Remarks	Text	Optional / Once	Remarks
1.5	Other Info Content	Other Info	Mandatory / Once	Other Information / Requirement Content
1.5.1	Oven Dry Temperature	Code	Mandatory / Once Enumeration = L,H,M	Presence Of Type

Level No.	Data Component	Type	Constraints	Definition
1.5.2	Preliminary Test Result	Boolean	Mandatory / Once	Flag to indicate that the preliminary test result is to be required
1.5.3	Preliminary Test Result Fax Number	Text	Optional / Once	Fax number for the preliminary test result if it is to be required
1.6	Authorization Content	Authorization Info	Mandatory / Once	Authorization Content
1.6.1	Delivery Supervised by Signature	Signature	Optional / Once	Delivery Supervised by Signature
1.6.2	Delivery Supervised by Name	Name	Mandatory / Once	Delivery Supervised by Name
1.6.3	Delivery Supervised by Post	Text	Optional / Once	Delivery Supervised by Post
1.6.4	Delivery Supervised by Telephone Number	Text	Optional / Once	Delivery Supervised by Telephone Number
1.6.5	Delivery Supervised by Fax Number	Text	Optional / Once	Delivery Supervised by Fax Number
1.6.6	Delivery Supervised by Date	Date	Mandatory / Once	Delivery Supervised by Date
1.6.7	Requested by Signature	Signature	Optional / Once	Requested by Signature
1.6.8	Requested by Name	Name	Mandatory / Once	Requested by Name
1.6.9	Requested by Post	Text	Mandatory / Once	Requested by Post
1.6.10	Requested by Telephone Number	Text	Optional / Once	Requested by Telephone Number
1.6.11	Requested by Fax Number	Text	Optional / Once	Requested by Fax Number

Level No.	Data Component	Type	Constraints	Definition
1.6.12	Requested by Date	Date	Mandatory / Once	Requested by Date
1.7	To Be Delivered Content	To Be Delivered	Optional / Once	Test certificate delivery information
1.7.1	To Be Collected	Boolean	Optional / Once	Flag to indicate the test certificate is to be collected.
1.7.2	Delivery Name	Name	Optional / Once	Name of person for content to be delivered
1.7.3	Delivery Address	Text	Optional / Once	Address for content to be delivered

The code lists used in this message are listed below:

Data component: Test Requested Content.Determination of Moisture Content Info.Test Requested Name

Code	Description
T2.3.2A	Test 2.3.2 A of GEO Report No. 36
T2.3.2B	Test 2.3.2 B of GEO Report No. 36
TM5.1	Test Method 5.1 of Geospec 3
TM5.2	Test Method 5.2 of Geospec 3

Data component: Test Requested Content.Determination of Moisture Content Info.P W L T M Number

Code	Description
1	SOL 2.2(a)
2	SOL 2.2(b)
3	GSP 5.1
4	GSP 5.2

Data component: Test Requested Content.Comparative Test For Determination Of Moisture Content Info.Test Requested Name

Code	Description
T2.3.2C	Test 2.3.2C of GEO Report No. 36
TM5.3	Test Method 5.3 of Geospec 3

Data component: Test Requested Content.Comparative Test For Determination Of Moisture Content Info.Test.P W L T M Number

Code	Description
1	SOL 2.2(c)
2	GSP 5.3

Data component: Test Requested Content.Determination of Liquid Limit By The Cone Penetrometer Method Info.Test Requested Name

Code	Description
T2.4.3	Test 2.4.3 of GEO Report No. 36

Data component: Test Requested Content.Determination of Liquid Limit By The Cone Penetrometer Method Info.P W L T M Number

Code	Description
1	SOL 2.4

Data component: Test Requested Content.Determination Of Plastic Limit Info.Test Requested Name

Code	Description
T2.5.3	Test 2.5.3 of GEO Report No. 36

Data component: Test Requested Content.Determination Of Plastic Limit Info.P W L T M Number

Code	Description
1	SOL 2.8

Data component: Test Requested Content.Determination of Liquid Limit Info.Test Requested Name

Code	Description
TM6.1	Test Method 6.1 of Geospec 3

Data component: Test Requested Content.Determination of Liquid Limit Info.P W L T M Number

Code	Description
1	GSP 6.1

Data component: Test Requested Content.Determination Of Liquidity Index Info.Test Requested Name

Code	Description
TM6.2	Test Method 6.2 of Geospec 3

Data component: Test Requested Content.Determination Of Liquidity Index Info.P W L T M Number

Code	Description
1	GSP 6.2

Data component: Test Requested Content.Determination of Particle Size Distribution By Wet Sieving Info.Test Requested Name

Code	Description
T2.9.2A	Test 2.9.2 A of GEO Report No. 36
T2.9.2B	Test 2.9.2 B of GEO Report No. 36
TM8.1	Test Method 8.1 of Geospec 3
TM8.2	Test Method 8.2 of Geospec 3

Data component: Test Requested Content.Determination of Particle Size Distribution By Wet Sieving Info.Requested Using Method

Code	Description
A	Method A
B	Method B

Data component: Test Requested Content.Determination of Particle Size Distribution By Wet Sieving Info.P W L T M Number

Code	Description
1	SOL 2.10(a)
2	SOL 2.10(b)
3	GSP 8.1
4	GSP 8.2

Data component: Test Requested Content.Determination of Particle Size Distribution By Hydrometer Method Info.Test Requested Name

Code	Description
T2.9.5A	Test 2.9.5 A of GEO Report No. 36
T2.9.5B	Test 2.9.5 B of GEO Report No. 36
TM8.5	Test Method 8.5 of Geospec 3
TM8.6	Test Method 8.6 of Geospec 3

Data component: Test Requested Content. Determination of Particle Size Distribution By Hydrometer Method Info.Requested Using Method

Code	Description
A	Method A
B	Method B

Data component: Test Requested Content.Determination of Particle Size Distribution By Hydrometer Method Info.P W L T M Number

Code	Description
1	SOL 2.11(a)
2	SOL 211(b)
3	GSP 8.5
4	GSP 8.6

Data component: Test Requested Content.Construction of Continuous Size Distribution Curve Info.Test Requested Name

Code	Description
T2.9.6	Test 2.9.6 of GEO Report No. 36
TM8.7	Test Method 8.7 of Geospec 3

Data component: Test Requested Content.Construction of Continuous Size Distribution Curve Info.P W L T M Number

Code	Description
1	SOL 2.12

2	GSP 8.7

Data component: Test Requested Content. Determination of Dry Density and Moisture Content 2point5 kg Rammer Info.Test Requested Name

Code	Description
T4.3.3A	Test 4.3.3(A) of GEO Report No. 36
T4.3.3B	Test 4.3.3(B) of GEO Report No. 36
T4.3.4A	Test 4.3.4(A) of GEO Report No. 36
T4.3.4B	Test 4.3.4(B) of GEO Report No. 36
TM10.1	Test Method 10.1 of Geospec 3
TM10.2	Test Method 10.2 of Geospec 3
TM10.3	Test Method 10.3 of Geospec 3
TM10.4	Test Method 10.4 of Geospec 3

Data component: Test Requested Content. Determination of Dry Density and Moisture Content 2point5 kg Rammer Info.P W L T M Number

Code	Description
1	SOL 4.1(a)
2	SOL 4.1(b)
3	SOL 4.1(c)
4	SOL 4.1(d)
5	GSP 10.1
6	GSP 10.2
7	GSP 10.3
8	GSP 10.4

Data component: Test Requested Content.Determination of Dry Density and Moisture Content 4point5 kg Rammer Info.Test Requested Name

Code	Description

T13	BS1377:1975 Test 13 with modification
TM10.5	Test Method 10.5 of Geospec 3
TM10.6	Test Method 10.6 of Geospec 3
TM10.7	Test Method 10.7 of Geospec 3
TM10.8	Test Method 10.8 of Geospec 3

Data component: Test Requested Content.Determination of Dry Density and Moisture Content 4point5 kg Rammer Info.P W L T M Number

Code	Description
1	SOL 4.2(b)
2	GSP 10.5
3	GSP 10.6
4	GSP 10.7
5	GSP 10.8

Data component: Test Requested Content.Determination of Laboratory CBR Info.Test Requested Name

Code	Description
CL7	BS1377:1990 Cl. 7 with modification
TM12.1	Test Method 12.1 of Geospec 3

Data component: Test Requested Content.Determination of Laboratory CBR Info.P W L T M Number

Code	Description
1	SOL 4.3
2	GSP 12.1

Data component: Sample Details Content.Sample Type

Code	Description
B	Bulk Samples
V	Vibro-cores

O	Others

Data component: Other Info Content.Oven Dry Temperature

Code	Description
L	45+/-5 degree
H	105+/-5 degree
M	Microwave Oven

8.1.13 WDD-13 Works Order

The Works Order messages in this data domain are based on the current standard submission layouts found in Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition) and are used for communication of Works Order information among construction consultants.

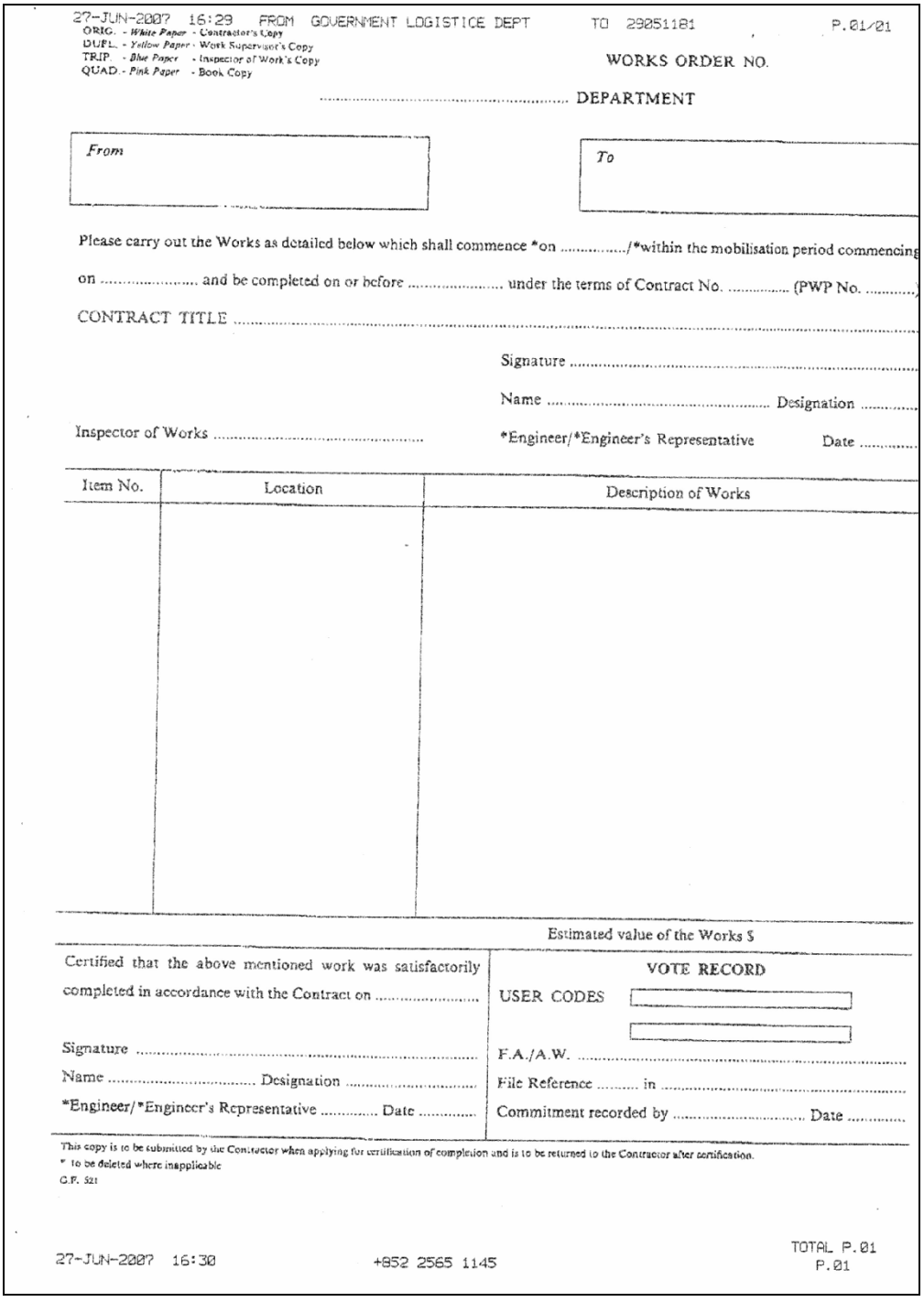
The WDD-13 data domain contains the following four messages:

1. WDD-13.0 GF 521 Works Order refers to section 8.1.13.1 for more details.
2. WDD-13.1 Variation Order refers to section 8.1.13.2 for more details.
3. WDD-13.2 Standard Letter for Variation Order refers to section 8.1.13.3 for more details.
4. WDD-13.3 Current Financial Statement refers to section 8.1.13.4 for more details.

8.1.13.1 WDD-13.0 GF 521 Works Order Message

WDD-13.0	GF 521 Works Order
Method	XML-based data standard

The following is a generic GF 521 Works Order as provided by DEVB:



27-JUN-2007 16:29 FROM GOVERNMENT LOGISTICE DEPT TO 29051181 P.01/01

ORIG. - *White Paper* - Contractor's Copy
DUPL. - *Yellow Paper* - Work Supervisor's Copy
TRIP. - *Blue Paper* - Inspector of Work's Copy
QUAD. - *Pink Paper* - Book Copy

WORKS ORDER NO.

..... DEPARTMENT

From

To

Please carry out the Works as detailed below which shall commence *on ...../*within the mobilisation period commencing on ..... and be completed on or before ..... under the terms of Contract No. ..... (PWP No. .....)

CONTRACT TITLE .....

Signature .....

Name ..... Designation .....

Inspector of Works .....

*Engineer/*Engineer's Representative Date .....

Item No.	Location	Description of Works

Estimated value of the Works $

Certified that the above mentioned work was satisfactorily completed in accordance with the Contract on .....

Signature .....

Name ..... Designation .....

*Engineer/*Engineer's Representative ..... Date .....

VOTE RECORD

USER CODES

F.A./A.W. .....

File Reference ..... in .....

Commitment recorded by ..... Date .....

This copy is to be submitted by the Contractor when applying for certification of completion and is to be returned to the Contractor after certification.
* to be deleted where inapplicable
G.F. 521

27-JUN-2007 16:30 +852 2565 1145 TOTAL P.01
P.01

The data structure of the WDD-13.0 GF 521 Works Order message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-13.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Works Order Logistics	Works Order Logistics	-	Works Order Logistics
1.1	Works Order Number	Identifier	Mandatory / Once	Works Order Number
1.2	Department	Text	Mandatory / Once	Department
1.3	From Name	Name	Mandatory / Once	From Name
1.4	From Address	Text	Optional / Once	From Address
1.5	To Name	Name	Mandatory / Once	To Name
1.6	To Address	Text	Optional / Once	To Address
1.7	Commence Period Flag	Code	Mandatory / Once Len. = 1, Enumeration = 1,2	Commence Period Flag
1.8	Commencing On	Date	Mandatory / Once	Commencing On
1.9	Completed On	Date	Mandatory / Once	Completed On

Level No.	Data Component	Type	Constraints	Definition
1.10	Contract Number	Identifier	Mandatory / Once	Contract Number
1.11	P W P Number	Identifier	Mandatory / Once	P W P Number
1.12	Contract Title	Text	Optional / Once	Contract Title
1.13	Order Person Signature	Signature	Optional / Once	Order Person Signature
1.14	Order Person Name	Name	Mandatory / Once	Order Person Name
1.15	Inspector Of Works	Name	Mandatory / Once	Inspector Of Works
1.16	Order Person Designation	Text	Mandatory / Once	Order Person Designation
1.17	Order Person Title	Code	Mandatory / Once Len. = 1, Enumeration = E,R	Order Person Title
1.18	Order Date	Date	Mandatory / Once	Order Date
1.19	Item Information Content	Item Information	Mandatory / Once	Item Information Content
1.19.1	Item Record Info Content	Item Record Info	Mandatory / Multiple	Item Record Info Content
1.19.1.1	Item Number	Identifier	Mandatory / Once	Item Number

Level No.	Data Component	Type	Constraints	Definition
1.19.1.2	Location Of Works	Text	Mandatory / Once	Location Of Works
1.19.1.3	Description Of Works	Text	Mandatory / Once	Description Of Works
1.19.2	Estimated Value Of Works	Amount	Mandatory / Once	Estimated Value Of Works
1.20	Certified Completion Content	Certified Information	Optional / Once	Certified Completion Content
1.20.1	Certified Completion Date	Date	Mandatory / Once	Certified Completion Date
1.20.2	Certified By Signature	Signature	Optional / Once	Certified By Signature
1.20.3	Certified By Name	Name	Mandatory / Once	Certified By Name
1.20.4	Certified Designation	Text	Mandatory / Once	Certified Designation
1.20.5	Certified By Title	Code	Mandatory / Once Len. = 1, Enumeration = E,R	Certified By Title
1.20.6	Certified Date	Date	Mandatory / Once	Certified Date
1.21	Vote Record Content	Vote Record	Optional / Once	Vote Record Content
1.21.1	User Codes 1	Text	Optional / Once	User Codes 1

Level No.	Data Component	Type	Constraints	Definition
1.21.2	User Codes 2	Text	Optional / Once	User Codes 2
1.21.3	F A or A W	Text	Optional / Once	Funding Allocation or Allocation Warrant
1.21.4	File Enclosure Number	Identifier	Optional / Once	File Enclosure Number
1.21.5	File Reference Number	Text	Optional / Once	File Reference Number
1.21.6	Commitment Record By	Name	Optional / Once	Commitment Record By
1.21.7	Commitment Record Date	Date	Optional / Once	Commitment Record Date

The code list used in this message is listed below:

Data component: Works Order Logistics.Commence Period Flag

Code	Description
1	on
2	within

Data component: Works Order Logistics. Order Person Title

Code	Description
E	Engineer
R	Engineer’s Representative

Data component: Certified Information Content.Certified By Title

Code	Description
E	Engineer
R	Engineer’s Representative

8.1.13.2 WDD-13.1 Variation Order Message

WDD-13.1	Variation Order
Method	XML-based data standard

The following is a generic Variation Order as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.21:

APPENDIX 7.21 VARIATION ORDER FORM

VARIATION ORDER NO. _____

Dear Sir,

Contract No. _____

(Title)

_____

_____

In accordance with Clause 60 of the General Conditions of Contract, please carry out the following:

(For example:

X/1. Additional reinforcement to walls as per enclosed Sketch No. .....

X/2. Extend surface water channel by approximately 3 m as indicated on Site.

X/3. Surface finish to all external walls of the Pumping Station to be mosaic tile.

X/4. Clean out the existing manhole adjacent to Gate No. 2.)

* In accordance with Clause 62(1) of the General Conditions of Contract, Items Nos. ..... are to be executed on daywork basis.

Yours faithfully,

.....
Name/Designation of the Engineer
or Engineer's Representative

c.c. *Engineer/Engineer's Representative

* delete where inapplicable

The data structure of the WDD-13.1 Variation Order message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-13.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Variation Order	Variation Order	-	Variation Order
1.1	Variation Order Number	Identifier	Mandatory / Once	Variation Order Number
1.2	Contract Number	Identifier	Mandatory / Once	Contract Number
1.3	Contract Title	Text	Optional / Once	Contract Title
1.4	Order Content	Text	Mandatory / Once	Order Content
1.5	Item Number	Text	Optional / Once	Details of item numbers to be executed on daywork basis
1.6	Person Name	Name	Mandatory / Once	Order person name
1.7	Person Title	Text	Optional / Once	Order person title
1.8	Person Signature	Signature	Optional / Once	Order person signature
1.9	C C Person	Code	Mandatory / Once Len. = 1, Enumeration = E,R	C C Person

The code list used in this message is listed below:

Data component: CC Person

Code	Description
E	Engineer
R	Engineer's Representative

8.1.13.3 WDD-13.2 Standard Letter for Variation Order Message

WDD-13.2	Standard Letter for Variation Order
Method	XML-based data standard

The following is a generic Standard Letter for Variation Order as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.22:

APPENDIX 7.22 STANDARD LETTER FOR VARIATION ORDER

VALUATION OF VARIATION ORDER NO. _____

Dear Sir,

Contract No. _____

(Title)

_____

_____

I refer to Variation Order No. ..... dated .....

In accordance with Clause 61 of the General Conditions of Contract, the rate(s) for the following items of work in the said variation order shall be as follows:

Item No.	Description	Quantity/Unit	Rate $	Amount $

The above quantities are subject to re-measurement in accordance with the Contract.

* This valuation is/Items nos. ..... are based on prices current at the time of tender and are subject to Contract Price Fluctuations.

* This valuation is/Items nos. ..... are based on prices current on the dates on which the work was carried out and are not subject to Contract Price Fluctuations.

Yours faithfully,

.....
The Engineer for the Contract

b.c.c. D of A)
Relevant Consultants' Management Office) with current
(for consultant-managed contracts)) financial
Engineer's Representative) statement
STA (or responsible Accounts Officer), departmental headquarters)
SE/CA (or responsible Contract Adviser), departmental headquarters)

* delete where inapplicable

The data structure of the WDD-13.2 Standard Letter for Variation Order message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.2-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.2-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-13.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Valuation Of Variation Order	Valuation Of Variation Order	-	Valuation of variation order
1.1	Variation Order Number	Identifier	Mandatory / Once	Variation Order Number
1.2	Contract Number	Identifier	Mandatory / Once	Contract Number
1.3	Contract Title	Text	Optional / Once	Contract Title
1.4	Order Number	Identifier	Mandatory / Once	Order Number
1.5	Order Date	Date	Mandatory / Once	Order Date
1.6	Order Item	Order Item Information	Optional / Multiple	Order items
1.6.1	Item Number	Identifier	Mandatory / Once	Order Item Number
1.6.2	Item Description	Text	Optional / Once	Order Item Description
1.6.3	Order Quantity	Measure	Optional / Once	Order Quantity / Unit
1.6.4	Rate	Amount	Optional / Once	Price Rate

Level No.	Data Component	Type	Constraints	Definition
1.6.5	Amount	Amount	Optional / Once	Order Amount
1.7	Choice Prices Current At Time Of Tender	Code	Optional / Once Enumeration = 1,2,3	Choice Prices Current At Time Of Contract
1.8	Number List for Current At Time Of Tender	Text	Optional / Once	Number List
1.9	Choice Prices Current On The Dates	Code	Optional / Once Enumeration = 1,2,3	Choice Prices Current On The Dates
1.10	Number List for Current On the Date	Text	Optional / Once	Number List
1.11	Order Person Name	Name	Mandatory / Once	Order person name
1.12	Order Person Title	Text	Optional / Once	Order person title
1.13	Order Person Signature	Signature	Optional / Once	Order person signature

The code lists used in this message are listed below:

Data component: Choice Prices Current At Time Of Tender

Code	Description
1	Valuation is
2	Items Nos are
3	Not used

Data component: Choice Prices Current On The Dates

Code	Description
1	Valuation is
2	Items Nos are
3	Not used

8.1.13.4 WDD-13.3 Current Financial Statement Message

WDD-13.3	Current Financial Statement
Method	XML-based data standard

The following is a generic Current Financial Statement as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.23:

APPENDIX 7.23 CURRENT FINANCIAL STATEMENT

Appendix to Valuation of Variation Order No. .....

..... DEPARTMENT

..... OFFICE/REGION/DIVISION

CURRENT FINANCIAL STATEMENT

(For internal use only, not to be issued to Contractor)

Current approved contract sum (C) (Approval ref. ..... dated .....)	_____
Anticipated final value of billed items	.....
Value of VOs issued	.....
Value of other sums certified to date (e.g. claims)	.....
CPF certified to date	.....
Sub-total (X)	_____
Contingency available before issue of this valuation (P) = (C - X)	.....
Value of this valuation (V)	.....
* Contingency available after issue of this valuation (Q) = (P - V)	.....
Estimated value of other work not yet covered by valuation of variation orders	.....
Anticipated value of outstanding claims	.....
Anticipated further sum against CPF	.....
Any other items (give details)	.....
Sub-total (Z)	_____
# Anticipated further increase in contract sum (I) = (Z - Q)	.....
Anticipated Final Contract Sum (F) = (C + I)	==========
Note: The original contract sum was	.....
The original contingency was	.....

* if Q < 0, an increase in contract sum is required
# if Q > Z, I = 0

The data structure of the WDD-13.3 Current Financial Statement message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.3-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-13.3-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-13.3-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Current Financial Statement	Current Financial Statement	-	Current financial statement
1.1	Valuation Of Variation Order Number	Identifier	Mandatory / Once	Valuation of variation order number
1.2	Department	Text	Optional / Once	Department
1.3	Division	Text	Optional / Once	Name for Office / Region / Division
1.4	Division Type	Code	Optional / Once Enumeration = O,R,D	Office / Region / Division
1.5	Current Approved Contract Sum	Amount	Mandatory / Once	Current approved contract sum
1.6	Approval Reference	Identifier	Mandatory / Once	Approval reference
1.7	Approval Date	Date	Mandatory / Once	Approval date
1.8	Anticipated Billed Items	Amount	Optional / Once	Anticipated final value of billed items
1.9	Issued V O Value	Amount	Optional / Once	Value of VOs issued

Level No.	Data Component	Type	Constraints	Definition
1.10	Other Certified To Date Value	Amount	Optional / Once	Value of other sums certified to date
1.11	C P F Certified To Date Value	Amount	Optional / Once	CPF certified to date value
1.12	Issued Value Sub Total	Amount	Mandatory / Once	Subtotal of issued value
1.13	Contingency Available Before Valuation	Amount	Mandatory / Once	Contingency available before issue of this valuation
1.14	Valuation Value	Amount	Mandatory / Once	Value of this valuation
1.15	Contingency Available After Valuation Value	Amount	Optional / Once	Contingency available after issue of this valuation
1.16	Other Work Not Yet Covered Estimated Value	Amount	Optional / Once	Estimated value of other work not yet covered by valuation of variation orders
1.17	Anticipated Outstanding Claims	Amount	Optional / Once	Anticipated value of outstanding claims
1.18	Anticipated Further Sum Against C P F	Amount	Optional / Once	Anticipated further sum against CPF
1.19	Other Items Value	Amount	Optional / Once	Any other items (give details)
1.20	Other Items Details Description	Text	Optional / Once	Other items details description
1.21	Estimated Value Sub Total	Amount	Mandatory / Once	Estimated value sub total
1.22	Anticipated Further Increase In Contract Sum	Amount	Optional / Once	Anticipated further increase in contract sum

Level No.	Data Component	Type	Constraints	Definition
1.23	Anticipated Final Contract Sum	Amount	Mandatory / Once	Anticipated final contract sum
1.24	Original Contract Sum	Amount	Mandatory / Once	Original contract sum
1.25	Original Contingency	Amount	Mandatory / Once	Original contingency

The code list used in this message is listed below:

Data component: Division Type

Code	Description
O	Office
R	Region
D	Division

8.1.14 WDD-14 Contractor Submission

The Contractor Submission messages in this data domain are based on forms found in Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition) as well as proprietary forms used by construction consultants for communication of Contractor Submission information.

The WDD-14 data domain contains the following three messages:

1. WDD-14.0 Contractor's General Submission, refers to section 8.1.14.1 for more details.
2. WDD-14.1 Inventory Record Form for Furniture and Equipment Which Shall be Returned to the Contractor, refers to section 8.1.14.2 for more details.
3. WDD-14.2 Record Form For Bituminous Materials Delivered To Site, refers to section 8.1.14.3 for more details.
4. WDD-14.3 Mandatory Provident Fund Notification Form, refers to section 8.1.14.4 for more details.
5. WDD-14.4 Shotfirer's Charging Details, refers to section 8.1.14.5 for more details.
6. WDD-14.5 Contractor's Design Submission, refers to section 8.1.14.6 for more details.
7. WDD-14.6 Contractor's Material Submission, refers to section 8.1.14.7 for more details.

8.1.14.1 WDD-14.0 Contractor's General Submission Message

WDD-14.0	Contractor's General Submission
Method	XML-based data standard

The following is a generic Contractor's General Submission:

Contract No.:	
Contractor:	
Contract Title:	
Contractor's General Submission	
To:	
Title of Submission	
Submission Ref. No.:	Sheet 1 of 1
Proposed Location of Works:	Description of Contents:
Fill up the following items (if applicable):	
Specification Reference: Drawing Reference:	
Details: ☐ Please refer to attachment (__ hardcopies + __ electronic copies) ☐ See Below	
Originator:	Checked by:
Purpose of Submission: For Approval ☐ For Information ☐	
From: Name: Signature: Date:	Acknowledge Receipt with Date:
Remarks:	

The data structure of the WDD-14.0 Contractor's General Submission message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contractor General Submission	Contractor General Submission	-	Contractor General Submission Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Contractor	Name	Mandatory / Once	Contractor
1.3	Contract Title	Text	Optional / Once	Contract Title
1.4	Submission To	Text	Mandatory / Once	Submission To
1.5	Title Of Submission	Text	Mandatory / Once	Title Of Submission
1.6	Submission Reference Number	Identifier	Mandatory / Once	Submission Reference Number
1.7	Proposed Location Of Works	Text	Optional / Once	Proposed Location Of Works
1.8	Description Of Contents	Text	Optional / Once	Description Of Contents
1.9	Specification Reference	Text	Optional / Once	Specification Reference
1.10	Drawing Reference	Text	Optional / Once	Drawing Reference
1.11	Refer To Attachment Indicator	Boolean	Mandatory / Once	Refer To Attachment Indicator
1.12	Number Of Hardcopies	Quantity	Optional / Once	Number Of Hardcopies

Level No.	Data Component	Type	Constraints	Definition
1.13	Number Of Electronic Copies	Quantity	Optional / Once	Number Of Electronic Copies
1.14	Include Details Description Indicator	Boolean	Mandatory / Once	Include Details Description Indicator
1.15	Details Description	Text	Optional / Once	Details Description
1.16	Originator	Name	Mandatory / Once	Originator
1.17	Checked By	Name	Mandatory / Once	Checked By
1.18	Purpose Of Submission	Code	Mandatory / Once Enumeration = A,I	Purpose Of Submission
1.19	Submission From	Text	Mandatory / Once	Submission From
1.20	Submission From Name	Name	Mandatory / Once	Submission Name
1.21	Submission From Signature	Signature	Optional / Once	Submission From Signature
1.22	Submission From Date	Date	Optional / Once	Submission From Date
1.23	Acknowledge Receipt Name	Name	Mandatory / Once	Acknowledge Receipt Name
1.24	Acknowledge Receipt Designation	Text	Optional / Once	Acknowledge Receipt Designation
1.25	Acknowledge Receipt Signature	Signature	Optional / Once	Acknowledge Receipt Signature

Level No.	Data Component	Type	Constraints	Definition
1.26	Acknowledge Receipt Date	Date	Optional / Once	Acknowledge Receipt Date
1.27	Remarks	Text	Optional / Once	Remarks

The code list used in this message is listed below:

Data component: Purpose Of Submission

Code	Description
A	For Approval
I	For Information

8.1.14.2 WDD-14.1 Inventory Record Form for Furniture and Equipment Which Shall be Returned to the Contractor Message

WDD-14.1	Inventory Record Form for Furniture and Equipment Which Shall be Returned to the Contractor
Method	XML-based data standard

The following is a generic inventory record form for furniture and equipment which shall be returned to the contractor as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.8:

APPENDIX 7.8 INVENTORY RECORD FORM FOR FURNITURE AND EQUIPMENT WHICH SHALL BE RETURNED TO THE CONTRACTOR

CONTRACT NO : _____ CONTRACTOR : _____

CONTRACT TITLE : _____

Reference Clause No.	Detail Description of Items	Acknowledge receipt in Good Order by Government Staff				Acknowledge Return by Contractor		
		Name	Designation	Signature	Date	Name	Signature	Date

Original Engineer's Copy
Duplicate Contractor's Copy

Note : Both copies of the inventory shall be updated and signed immediately after an item is delivered to site or returned to the Contractor

The data structure of the WDD-14.1 Inventory Record Form for Furniture and Equipment Which Shall be Returned to the Contractor message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.1-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Inventory For Returned	Inventory For Returned	-	Inventory for returned document
1.1	Contract Number	Identifier	Mandatory / Once	Contract number
1.2	Contractor	Name	Mandatory / Once	Contractor
1.3	Contract Title	Text	Optional / Once	Contract title
1.4	Inventory For Returned Details	Inventory For Returned Record Content	Mandatory / Multiple	Inventory for returned details
1.4.1	Reference Clause Number	Identifier	Mandatory / Once	Reference clause number
1.4.2	Detail Description Of Items	Text	Mandatory / Once	Detail description of items
1.4.3	Ack By Govt Staff Name	Name	Mandatory / Once	Acknowledge receipt in good order by government staff name
1.4.4	Ack By Govt Staff Designation	Text	Optional / Once	Acknowledge receipt in good order by government staff designation
1.4.5	Ack By Govt Staff Signature	Text	Optional / Once	Acknowledge receipt in good order by government staff signature
1.4.6	Ack By Govt Staff Date	Date	Optional / Once	Acknowledge receipt in good order by government staff date
1.4.7	Ack By Contractor Name	Name	Mandatory / Once	Acknowledge receipt in good order by contractor name
1.4.8	Ack By Contractor Signature	Text	Optional / Once	Acknowledge receipt in good order by contractor signature

Level No.	Data Component	Type	Constraints	Definition
1.4.9	Ack By Contractor Date	Date	Optional / Once	Acknowledge receipt in good order by contractor date

8.1.14.3 WDD-14.2 Record Form For Bituminous Materials Delivered To Site Message

WDD-14.2	Record Form For Bituminous Materials Delivered To Site
Method	XML-based data standard

The following is a generic record form for bituminous materials delivered to site as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.15:

APPENDIX 7.15 RECORD FORM FOR BITUMINOUS MATERIALS DELIVERED TO SITE

Type of Bituminous Material _____ Quarry Order No. _____

Contract No. _____ Date _____ Weather _____ Temperature _____°C

Location	Source of Supply	Delivery Chit No.	Lorry No.	Time			Temperature °C			Remarks
				Left Quarry	Arrived Site	Departed Site	At Mixing Plant	On Arrival	When Placing	

Recorded by _____ Designation: _____

The data structure of the WDD-14.2 Record Form For Bituminous Materials Delivered To Site message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.2-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Bituminous Material Delivered	Bituminous Material Delivered	-	Bituminous material document
1.1	Type Of Bituminous Material	Text	Mandatory / Once	Type of bituminous material
1.2	Contract Number	Identifier	Mandatory / Once	Contract number
1.3	Date	Date	Mandatory / Once	Date
1.4	Quarry Order Number	Identifier	Optional / Once	Quarry order number
1.5	Weather	Text	Optional / Once	Weather
1.6	Temperature	Measure	Optional / Once	Temperature (degree Celsius)
1.7	Bituminous Material Delivered Details	Bituminous Material Record Content	Mandatory / Multiple	Bituminous material document details
1.7.1	Location	Text	Mandatory / Once	Location
1.7.2	Source Of Supply	Text	Optional / Once	Source of supply
1.7.3	Delivery Chit Number	Identifier	Optional / Once	Delivery chit number
1.7.4	Lorry Number	Identifier	Optional / Once	Lorry number
1.7.5	Time Left Quarry	Time	Mandatory / Once	Left quarry time

Level No.	Data Component	Type	Constraints	Definition
1.7.6	Time Arrived Site	Time	Mandatory / Once	Arrived site time
1.7.7	Time Departed Site	Time	Mandatory / Once	Departed site time
1.7.8	Temperature At Mixing Plant	Measure	Mandatory / Once	At mixing plant temperature (degree Celsius)
1.7.9	Temperature On Arrival	Measure	Mandatory / Once	On arrival temperature (degree Celsius)
1.7.10	Temperature When Placing	Measure	Mandatory / Once	When placing temperature
1.7.11	Remarks	Text	Optional / Once	Remarks
1.8	Recorded By	Name	Mandatory / Once	Recorded by Person
1.9	Designation	Text	Optional / Once	Designation of Record Person

8.1.14.4 WDD-14.3 Mandatory Provident Fund Notification Form Message

WDD-14.3	Mandatory Provident Fund Notification Form
Method	XML-based data standard

The following is a generic mandatory provident fund notification form as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.41:

APPENDIX 7.41 MANDATORY PROVIDENT FUND NOTIFICATION FORM

To: Senior Manager, Industry Schemes
Mandatory Provident Fund Schemes Authority
(Fax No. 2259 8821)

Notification of Commencement of Contract

Contract No.:	
Contract Title:	
Contract Sum:	
Date for the commencement of Contract:	
Construction Period:	
Location of Site:	
Type of Works: *	
Name of Contractor:	
Company address of Contractor:	
Telephone Number:	
Facsimile Number:	
Name of contact person:	
Estimated number of workers:	under direct employment _____ employed by sub-contractors _____ estimated total number _____
Name of Nominated Sub-contractor(s) (if any):	
Name of Domestic Sub-contractor(s) (if any):	
Remarks:	

Information provided by the Contractor to:

Name: _____
Post: _____
Office/Department/Consultant _____
Telephone No. _____
Date _____

* Types of work:
A Foundation works
B Civil engineering works
C Demolition and structural alternation works
D Refurbishment and maintenance works
E General building construction works
F Fire services, mechanical and electrical works
G Gas, plumbing and drainage works
H Interior fitting out works
I Others

The data structure of the WDD-14.3 Mandatory Provident Fund Notification Form message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.3-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.3-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.3-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	M P F Notification Form	M P F Notification Form	-	Mandatory Provident Fund Notification Form
1.1	Contract Number	Identifier	Mandatory / Once	Contract number
1.2	Contract Title	Text	Optional / Once	Contract title
1.3	Contract Sum	Amount	Mandatory / Once	Contract sum
1.4	Date For The Commencement Of Contract	Date	Mandatory / Once	Date for the commencement of Contract
1.5	Construction Period From	Date	Optional / Once	Construction period from date
1.6	Construction Period To	Date	Optional / Once	Construction period to date
1.7	Location Of Site	Text	Optional / Once	Location of site

Level No.	Data Component	Type	Constraints	Definition
1.8	Types Of Works	Code	Mandatory / Once Max. Len. = 1, Enumeration = A,B,C,D,E,F,G ,H,I	Type of works
1.9	Name Of Contractor	Name	Mandatory / Once	Name of contractor
1.10	Company Address Of Contractor	Text	Optional / Once	Company Address of Contractor
1.11	Telephone Number	Text	Optional / Once	Telephone number
1.12	Facsimile Number	Text	Optional / Once	Facsimile number
1.13	Name Of Contact Person	Name	Mandatory / Once	Name of contact person
1.14	Estimated Number Of Workers Under Direct Employment	Quantity	Optional / Once	Estimated number of workers under direct employment
1.15	Estimated Number Of Workers Employed By Sub-contractors	Quantity	Optional / Once	Estimated number of workers employed by sub-contractors
1.16	Estimated Number Of Worker Total Number	Quantity	Optional / Once	Estimated number of workers total number
1.17	Name Of Nominated Sub-contractor	Name	Optional / Multiple	Name of Nominated Sub-contractor(s)
1.18	Name Of Domestic Sub-contractor	Name	Optional / Multiple	Name of Domestic Sub-contractor(s)

Level No.	Data Component	Type	Constraints	Definition
1.19	Remarks	Text	Optional / Once	Remarks
1.20	Submitted To Name	Name	Mandatory / Once	Submitted to name
1.21	Submitted To Post	Text	Optional / Once	Submitted to post
1.22	Submitted To Office	Submitted To Office Info	Optional / Once	Submitted to office
1.22.1	Submitted To Office Type	Code	Mandatory / Once Max. Len. = 1, Enumeration = O,D,C	Submitted to office / department / consultant
1.22.2	Submitted To Office Name	Text	Mandatory / Once	Submitted to office name
1.23	Submitted To Telephone Number	Text	Optional / Once	Submitted to telephone number
1.24	Submitted To Date	Date	Mandatory / Once	Submitted to date

The code list used in this message is listed below:

Data component: Types of Work

Code	Description
A	Foundation works
B	Civil engineering work
C	Demolition and structural alternation works
D	Refurbishment and maintenance works

E	General building construction works
F	Fire services, mechanical and electrical works
G	Gas, plumbing and drainage works
H	Interior fitting out works
I	Others

Data component: Submitted To Office Type

Code	Description
O	Office
D	Department
C	Consultant

8.1.14.5 WDD-14.4 Shotfirer's Charging Details Message

WDD-14.4	Shotfirer's Charging Details
Method	XML-based data standard

The following is a generic Shotfirer's Charging Details form as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.42:

APPENDIX 7.42 SHOTFIRER'S CHARGING DETAILS
[REGULATION 56(1) OF DANGEROUS GOODS (GENERAL) REGULATIONS, CAP 295]

Date: _____

Name of Contractor: _____ Site Code: _____

Name of Shotfirers:

1. _____ MBC NO.: _____ 2. _____ MBC NO.: _____

3. _____ MBC NO.: _____ 4. _____ MBC NO.: _____

Time of Blasting: (1) _____ (2) _____ (3) _____

	Type	Qty Received	Qty Consumed	Qty Destroyed
Cartridged Explosives				
Bulk Explosives				
Detonators				
Accessories				

Shotfirer i/c: _____ (Name) _____ Signature

Countersigned by Explosives Supervisor No.: _____ _____ Signature

****

The following details of the above blast(s) are shown on the attached plans:
(1) the site code and date;
(2) the location of the blast(s);
(3) the layout of the blast holes, including the burden and spacing;
(4) the diameter, depth, inclination and subgrade drilling of the blast holes;
(5) the amount and type of explosives loaded into each hole;
(6) the initiation system, including full details of the delay sequence; and
(7) the charge weight/delay period.

These plans should be certified correct by the shotfirer i/c.

The data structure of the WDD-14.4 Shotfirer's Charging Details message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.4-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.4-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.4-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Shotfirers Charging	Shotfirers Charging	-	Shotfirer's Charging Details
1.1	Date	Date	Mandatory / Once	Date
1.2	Name Of Contractor	Name	Mandatory / Once	Name Of Contractor
1.3	Site Code	Identifier	Mandatory / Once	Site Code
1.4	Shotfirer Info Content	Shotfirer Info	Optional / Multiple	Shotfirer Information Content
1.4.1	Name Of Shotfirer	Name	Mandatory / Once	Name Of Shotfirer
1.4.2	M B C Number	Identifier	Optional / Once	MBC Number
1.5	Time Of Blasting	Time	Optional / Multiple	Time of Blasting
1.6	Shotfirers Charging Blast Record	Blast Record	Optional / Multiple	Shotfirer's Charging Blast Details
1.6.1	Blast Code	Code	Optional / Once Enumeration = C,B,D,A	Blast Code

Level No.	Data Component	Type	Constraints	Definition
1.6.2	Blast Type	Text	Optional / Once	Blast Type
1.6.3	Blast Qty Received	Quantity	Optional / Once	Blast Quantity Received
1.6.4	Blast Qty Consumed	Quantity	Optional / Once	Blast Quantity Consumed
1.6.5	Blast Qty Destroyed	Quantity	Optional / Once	Blast Quantity Destroyed
1.7	Shotfirer I C Name	Name	Mandatory / Once	Shotfirers i/c Name
1.8	Shotfirer I C Signature	Signature	Optional / Once	Shotfirers i/c Signature
1.9	Countersigned By Supervisor Number	Identifier	Optional / Once	Countersigned By Explosive Supervisor Number
1.10	Countersigned By Supervisor Signature	Signature	Optional / Once	Countersigned By Explosive Supervisor Signature

The code list used in this message is listed below:

Data component: Blast Code

Code	Description
C	Cartridged Explosives
B	Bulk Explosives
D	Detonators
A	Accessories

8.1.14.6 WDD-14.5 Contractor's Design Submission Message

WDD-14.5	Contractor's Design Submission
Method	XML-based data standard

The following is a generic Contractor's Design Submission form:

Contract No.:	
Contractor:	
Contract Title:	
Contractor's Design Submission	
To:	
Title of Submission	
Submission Ref. No.:	Sheet 1 of 1
Description of Contents:	
Details:	☐ Please refer to attachment (__ hardcopies + __ electronic copies) ☐ See Below
Fill up the following items (if applicable): Works Discipline: Designer: Independent Checking Engineer: Nature of Works (Permanent / Temporary): Applicable Standard: Design Drawings Provided (Yes / No): Design Calculation Provided (Yes / No): Originator:	Checked by:
Purpose of Submission:	For Approval ☐ For Information ☐
From: Name: Signature: Date:	Acknowledge Receipt with Date:
Remarks:	

The data structure of the WDD-14.5 Contractor's Design Submission message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.5-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.5-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.5-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contractor Design Submission	Contractor Design Submission	-	Contractor Design Submission Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Contractor	Name	Mandatory / Once	Contractor
1.3	Contract Title	Text	Optional / Once	Contract Title
1.4	Submission To	Text	Mandatory / Once	Submission To
1.5	Title Of Submission	Text	Mandatory / Once	Title Of Submission
1.6	Submission Reference Number	Identifier	Mandatory / Once	Submission Reference Number
1.7	Description Of Contents	Text	Optional / Once	Description Of Contents
1.8	Refer To Attachment Indicator	Boolean	Mandatory / Once	Refer To Attachment Indicator
1.9	Number Of Hardcopies	Quantity	Optional / Once	Number Of Hardcopies
1.10	Number Of Electronic Copies	Quantity	Optional / Once	Number Of Electronic Copies
1.11	Include Details Description Indicator	Boolean	Mandatory / Once	Include Details Description Indicator
1.12	Details Description	Text	Optional / Once	Details Description

Level No.	Data Component	Type	Constraints	Definition
1.13	Works Discipline	Text	Optional / Once	Works Discipline
1.14	Designer	Text	Optional / Once	Designer
1.15	Independent Checking Engineer	Text	Optional / Once	Independent Checking Engineer
1.16	Nature Of Works	Code	Optional / Once Enumeration = P,T	Nature Of Works
1.17	Applicable Standard	Text	Optional / Once	Applicable Standard
1.18	Design Drawings Provided	Boolean	Optional / Once	Design Drawings Provided
1.19	Design Calculation Provided	Boolean	Optional / Once	Design Calculation Provided
1.20	Originator	Name	Mandatory / Once	Originator
1.21	Checked By	Name	Mandatory / Once	Checked By
1.22	Purpose Of Submission	Code	Mandatory / Once Enumeration = A,I	Purpose Of Submission
1.23	Submission From	Text	Mandatory / Once	Submission From
1.24	Submission From Name	Name	Mandatory / Once	Submission Name

Level No.	Data Component	Type	Constraints	Definition
1.25	Submission From Signature	Signature	Optional / Once	Submission From Signature
1.26	Submission From Date	Date	Optional / Once	Submission From Date
1.27	Acknowledge Receipt Name	Name	Mandatory / Once	Acknowledge Receipt Name
1.28	Acknowledge Receipt Designation	Text	Optional / Once	Acknowledge Receipt Designation
1.29	Acknowledge Receipt Signature	Signature	Optional / Once	Acknowledge Receipt Signature
1.30	Acknowledge Receipt Date	Date	Optional / Once	Acknowledge Receipt Date
1.31	Remarks	Text	Optional / Once	Remarks

The code lists used in this message are listed below:

Data component: Nature Of Works

Code	Description
P	Permanent
T	Temporary

Data component: Purpose Of Submission

Code	Description
A	For Approval
I	For Information

8.1.14.7 WDD-14.6 Contractor's Material Submission Message

WDD-14.6	Contractor's Material Submission
Method	XML-based data standard

The following is a generic Contractor's Material Submission form:

Contract No.:
Contractor:
Contract Title:
Contractor's Material Submission
To:
Title of Submission
Submission Ref. No.: Sheet 1 of 1
Description of Contents:
Details: ☐ Please refer to attachment (__ hardcopies + __ electronic copies) ☐ See Below
Fill up the following items (if applicable)/Please refer to the attached submission: Type of Product or Services: Name of Product or Services: Name of Origin: Supplier's Name: Quantity of Sample Submitted and Other Description: Proposed Location of Use: Applicable Specification Clause: Originator: Checked by:
Purpose of Submission: For Approval ☐ For Information ☐
From: Name: Signature: Date: — Acknowledge Receipt with Date:
Remarks:

The data structure of the WDD-14.6 Contractor's Material Submission message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.6-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-14.6-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-14.6-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contractor Material Submission	Contractor Material Submission	-	Contractor Material Submission Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Contractor	Name	Mandatory / Once	Contractor
1.3	Contract Title	Text	Optional / Once	Contract Title
1.4	Submission To	Text	Mandatory / Once	Submission To
1.5	Title Of Submission	Text	Mandatory / Once	Title Of Submission
1.6	Submission Reference Number	Identifier	Mandatory / Once	Submission Reference Number
1.7	Description Of Contents	Text	Optional / Once	Description Of Contents
1.8	Refer To Attachment Indicator	Boolean	Mandatory / Once	Refer To Attachment Indicator
1.9	Number Of Hardcopies	Quantity	Optional / Once	Number Of Hardcopies
1.10	Number Of Electronic Copies	Quantity	Optional / Once	Number Of Electronic Copies
1.11	Include Details Description Indicator	Boolean	Mandatory / Once	Include Details Description Indicator
1.12	Details Description	Text	Optional / Once	Details Description

Level No.	Data Component	Type	Constraints	Definition
1.13	Type Of Product Or Services	Text	Optional / Once	Type Of Product Or Services
1.14	Name Of Product Or Services	Text	Optional / Once	Name Of Product Or Services
1.15	Name Of Origin	Name	Optional / Once	Name of Origin
1.16	Supplier Name	Name	Optional / Once	Supplier Name
1.17	Quantity Submitted And Other Description	Text	Optional / Once	Quantity Submitted And Other Description
1.18	Proposed Location Of Use	Text	Optional / Once	Proposed Location Of Use
1.19	Applicable Specification Clause	Text	Optional / Once	Applicable Specification Clause
1.20	Originator	Name	Mandatory / Once	Originator
1.21	Checked By	Name	Mandatory / Once	Checked By
1.22	Purpose Of Submission	Code	Mandatory / Once Enumeration = A,I	Purpose Of Submission
1.23	Submission From	Text	Mandatory / Once	Submission From
1.24	Submission From Name	Name	Mandatory / Once	Submission Name
1.25	Submission From Signature	Signature	Optional / Once	Submission From Signature

Level No.	Data Component	Type	Constraints	Definition
1.26	Submission From Date	Date	Optional / Once	Submission From Date
1.27	Acknowledge Receipt Name	Name	Mandatory / Once	Acknowledge Receipt Name
1.28	Acknowledge Receipt Designation	Text	Optional / Once	Acknowledge Receipt Designation
1.29	Acknowledge Receipt Signature	Signature	Optional / Once	Acknowledge Receipt Signature
1.30	Acknowledge Receipt Date	Date	Optional / Once	Acknowledge Receipt Date
1.31	Remarks	Text	Optional / Once	Remarks

The code list used in this message is listed below:

Data component: Purpose Of Submission

Code	Description
A	For Approval
I	For Information

8.1.15 WDD-15 Construction Milestone Data

WDD-15.0	Construction Milestone Data
Method	CSV-based data standard

The MPX format, a Microsoft Project proprietary text format, is supported by majority of project management software including Microsoft Project 98/2000, Primavera P3/4/5 and Suretrak 2.0/3.x. All these software packages support read/write of the MPX format file.

Since version 2002/2003, Microsoft Project has adopted the XML format as the file exchange standard. Although some software such as Primavera supports the new XML format, the XML format in Microsoft Project remains proprietary and only Microsoft Project solution can read/write this XML format. Other project management packages can only read the XML format but cannot save in this proprietary format.

All project management solutions have the capability to read and write project data in CSV format. Thus CSV remains the most universal means of importing and exporting project milestone information. Thus it is recommended the standard conversion format is in CSV with the following fields:

Data Component	Description	Data Type
Activity ID	Task Activity ID	Text
Activity Description	Task Activity Description	Text
Original Duration	Original Duration of Task Activity	Numeric + Planning Unit*
Early Start	Early Start Date of Task Activity	Date, Format: dd/mm/yyyy
Actual Start	Actual Start Date of Task Activity	Date, Format: dd/mm/yyyy
Early Finish	Early Finish Date of Task Activity	Date, Format: dd/mm/yyyy
Actual Finish	Actual Finish Date of Task Activity	Date, Format: dd/mm/yyyy
% Complete	Percent Complete of Task Activity	Text

All fields would be specified as text string during export, with the appropriate data formats to be specified separately. When importing into another project management solution, user would import the CSV along with the appropriate data formats for the corresponding fields using the project management solution's native conversion tool.

* Planning Unit include:- hour, day, week

8.1.16 WDD-16 BoQ/SoR

WDD-16.0	BoQ/SoR
Method	Reference to existing standard

The BoQ/SoR file format should define a common data interchange, which facilitates the creation and dissemination of electronic tenders and the preparation and submission of electronic tender returns. In addition, the BoQ/SoR file formulation should consider importation and exportation to and from various computer systems. In additional, validation mechanism should be in place for checking the submitted BoQ/SoR to ensure the Contractors do not modify protected fields.

8.1.16.1 Bill of quantities/Schedule of rates file format options

While many file format options could be considered, the three file formats considered are the most widely and commonly used within the construction industry for formulating the BoQ/SoR. The three file formats considered include Excel, eXtensible Markup Language (XML) and ASCII. Strengths and weaknesses are identified for each.

8.1.16.1.1 Excel

Most of the Works Departments are using Excel 97 or later version for the electronic dissemination of native BoQ/SoR files. The file formats have been used for electronic dissemination since August 2000. The Excel format is included with the Microsoft Excel desktop application. Therefore, no additional application software is required to use this file format.

8.1.16.1.1.1 Strengths

a) Although Excel file format is a proprietary format, it is an IT industry standard and is widely accepted by the Contractors and it has been a preferred format for Public Works Contracts;
b) Contractors can import the Excel BoQ/SoR into their own systems easily by converting the Excel file into a comma separated variable (CSV) file;
c) Contractors can use Excel or other office automation tools that support Excel file format to prepare their BoQ/SoR returns;
d) Formulae can be built into the Excel document, which reduce errors in calculating the total price;
e) Most project departments can prepare the BoQ/SoR using office automation tools or prepare the BoQ/SoR from their own systems and export to Excel file format; and
f) Most project departments can use the Excel BoQ/SoR for evaluating tenders and estimating cost.

8.1.16.1.1.2 Weaknesses

a) The mechanism to protect the cells from modification requires proficiency in using Microsoft Excel;

b) There are methods to circumvent the cell protection, such as copying the contents of the file into a new Excel file. Therefore, a checking program is needed to check whether the protected cells have been modified; and
c) The construction industry has the concern that the adoption of Excel file format encourages the monopoly of Microsoft.

8.1.16.1.2 eXtensible Markup Language

At present, no Works Department is using eXtensible Markup Language (XML) for dissemination of the BoQ/SoR. XML is generally used in a web-based environment for the exchange of data by defining the data format. However, XML requires Data Type Definition (DTD) to define the specification and additional application software to actually process the data based on the DTD.

Two XML specification standards for the construction or engineering industry are being developed. Building-Construction XML (bcXML) was initiated by eConstruct, a "pan-European group of construction-related organisations". According to the project plan, the specification would be completed by March 2002. Architecture, Engineering and Construction XML (aecXML) was initiated by Bently Systems Incorporated. The members are mainly from the United States of America. However, only a limited number of aecXML schemas have been drafted.

8.1.16.1.2.1.1 Strengths

a) XML is a widely accepted standard for data interchange;
b) XML is platform independent; and
c) XML supports a more dynamic structure than CSV or fixed length file. For example, different types of information can be defined for different types of works items. On the other hand, in a fixed length ASCII files, all work items have the same set of information.

8.1.16.1.2.2 Weaknesses

a) The XML specification standard for architectural, engineering and construction industry is still under development and not yet fully recognised by the industry. As a result, market support for these standards is minimal. Even if there were market solutions to support these XML standards, the Government departments and the Contractors would have to purchase these solutions or develop a compatible solution in-house, and thus increasing the cost of tendering.

8.1.16.1.3 ASCII File Format

No Works Department is currently using fixed length or CSV ASCII file formats for dissemination of the BoQ/SoR. However, fixed length or CSV file formats are commonly used for data interchange. Similar to XML, the file structure has to be defined and application software is required to process the data. The Construction Industry Trading Electronically (CITE) is an initiative

started in the United Kingdom to achieve electronic data exchange. CITE has defined a fixed length ASCII file format for exchanging the BoQ.

8.1.16.1.3.1 Strengths

a) Fixed length or CSV file formats can be easily imported into in-house systems or converted into Excel files;
b) The CITE format is supported by many software products for cost estimation; and
c) The format is not based on any proprietary software.

8.1.16.1.3.2 Weaknesses

c) Formulae are not supported to facilitate arithmetic calculations; and
d) Works Departments have to purchase software that support the CITE format for preparation of the BoQ. Although a freeware is available from the webpage of CITE, the freeware cannot meet all the requirements for preparation of BoQ, such as allow procuring department to provide a standard price rate and require tenderers to provide a mark-up or mark-down of the price. Moreover, local support of the freeware is limited and may not meet the departments' requirements.

8.1.16.2 Recommendation

Three file formats were examined. The Excel file format is recommended for the formulation of the BoQ/SoR as it meets the Government's current and on-going business needs. Moreover, all Works departments use Excel for BoQ/SoR preparation and it is the preferred file formats for Public Works Contracts as well based on feedback from the industry. There are market solutions available for verifying the BoQ/SoR submission in Excel file format. Therefore, the use of Excel file format for formulation of BoQ/SoR in accordance to the specifics as indicated in ETWB Technical Circular (Works) No. 19/2005.

8.1.17 WDD-17 CBS Standard/Cost Data

The Cost Breakdown Structure/Cost Data message in this data domain is based on the current standard submission layout found in Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition) and is used for exchange of Works related cost information among project participants.

The WDD-17 data domain contains the following message:

1. WDD-17.0 Cost Breakdown Structure/Cost Data

8.1.17.1 WDD-17.0 Running Abstract Message

WDD-17.0	Running Abstract
Method	XML-based data standard

The following is a generic cost breakdown structure/cost data submission based on the Running Abstract Form as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 9.10:

APPENDIX 9.10 RUNNING ASTRACT

Contract No. _____ Item No. _____

Item Description _____ Quantity _____

_____ Unit _____

_____ Rate _____

_____ Sheet No. _____

Date	Abstracted from	Quantity	Running Total	Location/Remarks	Interim Payment No.

The data structure of the WDD-17.0 Running Abstract message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-17.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-17.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Cost Breakdown Running Abstract	Cost Breakdown Running Abstract	-	Cost Breakdown Running Abstract Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Item Number	Identifier	Mandatory / Once	Item Number
1.3	Item Description	Text	Optional / Once	Item Description
1.4	Item Quantity	Quantity	Mandatory / Once	Item Quantity
1.5	Unit Of Measure	Text	Optional / Once	Unit Of Measure
1.6	Item Rate	Amount	Mandatory / Once	Item Rate
1.7	Sheet Number	Identifier	Optional / Once	Sheet Number
1.8	Cost Breakdown Data Content	Cost Breakdown Data Record	Optional / Multiple	Cost Breakdown Data Content
1.8.1	Abstracted Date	Date	Optional / Once	Abstracted Date
1.8.2	Abstracted From	Text	Optional / Once	Abstracted From
1.8.3	Abstracted Quantity	Quantity	Optional / Once	Abstracted Quantity
1.8.4	Running Total	Amount	Optional / Once	Running Total

Level No.	Data Component	Type	Constraints	Definition
1.8.5	Location or Remarks	Text	Optional / Once	Location or Remarks
1.8.6	Interim Payment Number	Identifier	Optional / Once	Interim Payment Number

8.1.18 WDD-18 Contract Rate Statistics

The Contract Rate Statistics message in this data domain is based on the current format in the Contract Rate Database System used among Works Group of Departments.

The WDD-18 data domain contains the following message:

1. WDD-18.0 Contract Rate Statistics
2. WDD-18.1 Contract Rate Information

8.1.18.1 WDD-18.0 Contract Rate Statistics Message

WDD-18.0	Contract Rate Statistics
Method	XML-based data standard

The following is a generic output from Contract Rate Statistics application.

Data Component	Description	Data Type
Code	Code ID	Text
ItemID	Item ID from BoQ	Text
WorksDescription	Description of Item	Text
Quantity	Item Quantity	Integer
Unit	Unit of Measure	Text
1stTenderRate	First Tender Rate	Amount
2ndTenderRate	Second Tender Rate	Amount
3rdTenderRate	Third Tender Rate	Amount
AwardedRate	Awarded Rate	Amount
Remark	Item Remark	Text
ContractSum	Contract Sum	Amount
Month	Month	Integer
Year	Year	Integer
TenderTime	Tender Time	Date Time
Particular	Item Particular	Text
Rank	Ranking of Item	Text
Ref_no	Reference Number	Text
District	District	Text
ysnNewSCC	New SCC	Boolean

The data structure of the WDD-18.0 Contract Rate Statistics message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-18.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-18.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contract Rate Statistics	Contract Rate Statistics	-	Contract Rate Statistics Document
1.1	Contract Rate Record Content	Contract Rate Record	Mandatory / Multiple	Contract Rate Record Content
1.1.1	Code I D	Identifier	Mandatory / Once	Code ID
1.1.2	Item I D	Identifier	Mandatory / Once	Item ID
1.1.3	Works Description	Text	Optional / Once	Works Description
1.1.4	Item Quantity	Measure	Optional / Once	Item Quantity
1.1.5	First Tender Rate	Rate	Optional / Once	First Tender Rate
1.1.6	Second Tender Rate	Rate	Optional / Once	Second Tender Rate
1.1.7	Third Tender Rate	Rate	Optional / Once	Third Tender Rate
1.1.8	Current Award Rate	Rate	Optional / Once	Current Award Rate
1.1.9	Remarks	Text	Optional / Once	Remarks
1.1.10	Percentage of Contract Sum	Percent	Optional / Once	Percentage of Contract Sum
1.1.11	Report Month	Numeric	Optional / Once	Report Month
1.1.12	Report Year	Numeric	Optional / Once	Report Year

Level No.	Data Component	Type	Constraints	Definition
1.1.13	Tender Time	Date	Optional / Once	Tender Time
1.1.14	Particular	Text	Optional / Once	Item Particular
1.1.15	Rank	Text	Optional / Once	Ranking of Item
1.1.16	Reference Number	Identifier	Optional / Once	Reference Number
1.1.17	District	Text	Optional / Once	District of Item
1.1.18	New S C C	Boolean	Optional / Once	Indicate an item which is to be new SCC (Special Condition of Contract)

8.1.18.2 WDD-18.1 Contract Rate Information

WDD-18.1	Contract Rate Information
Method	XML-based data standard

The following is a report for Contract Rate Information.

Contract Rate Information						
Contract No:						
Contract Sum (HK$):						
Tender Closing Date (mm/yyyy):						
Contract Title:						
New SCC: ☐		District:				
Reference No.:						
Contract Particular:						
Code	Item No.	Description	Quantity	Unit	Rate (HK$)	Remark

The data structure of the WDD-18.1 Contract Rate Information message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-18.1-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-18.1-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-18.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contract Rate Information	Contract Rate Information	-	Contract Rate Information Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Contract Sum	Amount	Mandatory / Once	Contract Sum (HK$)
1.3	Tender Closing Date	Date	Mandatory / Once	Tender Closing Date (mm/yyyy)
1.4	Contract Title	Text	Optional / Once	Contract Title
1.5	New S C C	Boolean	Mandatory / Once	New SCC (Special Condition of Contract)
1.6	District	Code	Mandatory / Once Enumeration = CTL,EST,ISL, KWL,KTS,KNT,NTH,SKG,STN,SSP,STH,TPO,TSW,TNM,WNC,WTS,YTM,YLN	District of the contract rate information-
1.7	Reference Number	Identifier	Optional / Once	Reference Number
1.8	Contract Particular	Text	Optional / Once	Contract Particular

Level No.	Data Component	Type	Constraints	Definition
1.9	Contract Rate Record Content	Contract Rate Record	Optional / Multiple	Contract Rate Record Content
1.9.1	Code	Identifier	Optional / Once	Code
1.9.2	Item Number	Identifier	Optional / Once	Item Number
1.9.3	Description	Text	Optional / Once	Description
1.9.4	Quantity	Quantity	Optional / Once	Quantity
1.9.5	Unit	Code	Optional / Once Enumeration = %,DAY,HA,HR,ITEM,KG,M,M2,M3,MM,MM2,MTH,N-D,NR,N-WK,SET,T,WK	Unit
1.9.6	Rate	Amount	Mandatory / Once	Rate (HK$)
1.9.7	Remark	Text	Optional / Once	Remark

The code lists used in this message are listed below:

Data component: ContractRateRecordContent.Unit

Code	Description
%	Percent
DAY	Day
HA	Hectare
HR	Hour
ITEM	Item
KG	Kilogram
M	Meter
M2	Square Meter
M3	Cubic Meter
MM	Millimetre
MM2	Square Millimetre
MTH	Month
N-D	Number-Day
NR	Number
N-WK	Number-Week
SET	Set
T	Tonne
WK	Week

Data component: District

Code	Description
CTL	Central & Western
EST	Eastern
ISL	Islands
KWL	Kowloon City
KTS	Kwai Tsing
KNT	Kwun Tong
NTH	North

SKG	Sai Kung
STN	Sha Tin
SSP	Sham Shui Po
STH	Southern
TPO	Tai Po
TSW	Tsuen Wan
TNM	Tuen Mun
WNC	Wan Chai
WTS	Wong Tai Sin
YTM	Yau Tsim Mong
YLN	Yuen Long

8.1.19 WDD-19 Reinforced Bar Schedule

The reinforced bar schedule messages in this data domain is based on the current standard submission format used among construction consultants for reinforced bar schedule. The data domain also makes reference the reinforced bar schedule standard Version 1.0 by the Centre for eBusiness in Construction (CITE) in the U.K.

The WDD-19 data domain contains the following message:

1. WDD-19.0 Reinforced Bar Schedule

8.1.19.1 WDD-19.0 Reinforced Bar Schedule Message

WDD-19.0	Reinforced Bar Schedule
Method	XML-based data standard

The following is a generic reinforced bar schedule submission as outlined in the Project Administration Handbook for Civil Engineering Works (PAH 2006 Edition), Appendix 7.13:

APPENDIX 7.13 BAR BENDING SCHEDULE

OFFICE / DIVISION _____ DEPARTMENT

CONTRACT NO. _____ BAR SCHEDULE NO. ☐☐☐ AMD ☐

TITLE _____ DRAWING NO. ☐☐☐☐☐☐☐☐

Location and member	Bar mark	Type and Size	No. of members	No. in each	Total No.	Shape code	A* mm	B* mm	C* mm	D* mm	E/R* mm	Length of each bar mm	Total length M#	Mass/metre kg %	Total mass kg %

Legends
* specified to nearest 5 mm
\# specified to nearest 10 mm
% specified to two decimal places

Prepared by	Designation	Date	Checked by	Designation	Date	Amendments

Note: This Schedule is prepared for the Contractors' guidance only. The Contractor shall be responsible for checking all dimensions of reinforcement on the Site and/or from the drawings and no claim will be allowed in respect of any inaccuracies in this Schedule.

The data structure of the WDD-19.0 Reinforced Bar Schedule message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-19.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-19.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-19.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Bar Bending Schedule	Bar Bending Schedule	-	Bar Bending Schedule
1.1	Office Or Division	Text	Optional / Once	Office / division
1.2	Department	Text	Optional / Once	Department
1.3	Contract Number	Identifier	Mandatory / Once	Contract number
1.4	Bar Schedule Number	Identifier	Mandatory / Once	Bar schedule number
1.5	Version Number	Identifier	Mandatory / Once	Version number
1.6	Title	Text	Optional / Once	Bar bending schedule title
1.7	Drawing Number	Identifier	Mandatory / Once	Drawing number
1.8	Bar Bending Schedule Record Details	Bar Bending Schedule Record	Mandatory / Multiple	Bar bending schedule record details
1.8.1	Location And Member	Text	Optional / Once Max. Len. = 2	Location and member
1.8.2	Bar Mark	Identifier	Mandatory / Once Max. Len. = 8	Bar mark

Level No.	Data Component	Type	Constraints	Definition
1.8.3	Type	Code	Mandatory / Once Max. Len. = 1, Enumeration = T,R	Type code
1.8.4	Size	Code	Mandatory / Once Max. Len. = 2, Enumeration = 06,08,10,12,16, 20,25,32,40,50	Size code
1.8.5	Number Of Members	Count	Mandatory / Once Max. Len. = 4	Number of members
1.8.6	Number of Bars In Each	Count	Mandatory / Once Max. Len. = 3	Number of bars in each bar schedule item
1.8.7	Total Number Of Bars	Count	Mandatory / Once Max. Len. = 4	Total number of bars
1.8.8	Shape Details	Shape Information	Mandatory / Once	Shape details
1.8.8.1	Shape Code	Identifier	Mandatory / Once	Shape Code
1.8.8.2	Shape Drawing Attachment	Attachment Item	Optional / Once	Shape drawing attachment
1.8.8.2.1	File	Name	Mandatory / Once	File name

Level No.	Data Component	Type	Constraints	Definition
1.8.8.2.2	Description	Text	Optional / Once	Description
1.8.8.3	Dimension A	Measure	Mandatory / Once	Dimension A measure (in mm)
1.8.8.4	Dimension B	Measure	Optional / Once	Dimension B measure (in mm)
1.8.8.5	Dimension C	Measure	Optional / Once	Dimension C measure (in mm)
1.8.8.6	Dimension D	Measure	Optional / Once	Dimension D measure (in mm)
1.8.8.7	Dimension E R	Measure	Optional / Once	Dimension E/R measure (in mm)
1.8.9	Length Of Each Bar	Measure	Mandatory / Once	Length of each bar (in mm)
1.8.10	Total Length	Measure	Optional / Once	Total length (in mm)
1.8.11	Mass Per Metre	Measure	Optional / Once	Mass / Metre (in kg/m)
1.8.12	Total Mass	Measure	Optional / Once	Total mass (in kg/m)
1.9	Prepare By Person Name	Name	Mandatory / Once	Prepared by person name
1.10	Prepared By Title	Text	Optional / Once	Prepared by title
1.11	Prepare Date	Date	Mandatory / Once	Prepare date
1.12	Prepared By Designation	Signature	Optional / Once	Prepared by designation

Level No.	Data Component	Type	Constraints	Definition
1.13	Checked By Person Name	Name	Mandatory / Once	Checked by person name
1.14	Checked By Title	Text	Optional / Once	Checked by title
1.15	Check Date	Date	Mandatory / Once	Check date
1.16	Checked By Designation	Signature	Optional / Once	Checked by designation
1.17	Amendments	Text	Optional / Once	Amendments

The code lists used in this message are listed below:

i. Data component: Bar Type Code

Code	Description
T	Bar Type T
R	Bar Type R

ii. Data component: Bar Size Code

Code	Description
06	Size 06
08	Size 08
10	Size 10
12	Size 12
16	Size 16
20	Size 20
25	Size 25

32	Size 32
40	Size 40
50	Size 50

8.1.20 WDD-20 Bore-hole Information

WDD-20.0	Bore Hole Information
Method	Reference to existing standard

Consultation with industry including Ove Arup indicated that the Association of Geotechnical and Geoenvironmental Specialists (AGS) standard would be the most appropriate reference for this data domain, since the AGS standard is commonly used within construction consultants. In addition, there is a large selection of software that can import and export geotechnical information in AGS standard for data exchange purpose.

It was recognized by AGS back in 1991 that a standard format would be necessary to facilitate the exchange of geotechnical data and thus led to the setting up of a Working Party to establish an interchange format which allowed transfer of data between parties with minimal change to the their computer systems. The outcome of this work was embodied in the First Edition of this document. The Second and Third Editions were published in 1994 and 1999 respectively containing a series of updates and developments reflecting the ongoing needs of the industry.

In 2003 the AGS commissioned a working party to review the capabilities of XML data and advise the main AGS Data Format committee on whether the use of XML in the next version of AGS would provide additional benefits. However, there is still a significant amount of work involved before the XML data format would be finalized.

8.1.20.1 Recommendation

It is recommended to use the current AGS 3.1 version for this data domain. In particular, Bore-hole Record definition within AGS 3.1 which includes trial pit record, in situ test data and laboratory test summaries.

8.1.21 WDD-21 Landslide Information

WDD-21.0	Slope Information
Method	Excel file based standard.

Consultation with CEDD indicated that for this data domain, the Buildings Department PNAP 168 Form for registration of slopes and retaining walls currently utilized by the Slope Information System would be required for capturing, updating and presentation of slope information within this data domain. The PNAP 168 Form is available in Excel format. Since this Excel file is a customized form based on the Data Alignment Measures (DAM) Standard for data exchange with CEDD, GEO and other departments backend systems, the current and any subsequent versions of this file would be used as this data domain standard.

8.1.21.1 Recommendation

It is recommended to use the current PNAP 168 Form in Excel format for this data domain.

8.1.22 WDD-22 Rain-gauge

The Rain Gauge message in this data domain is based on the current standard rainfall report format provided by CEDD/GEO and used among construction consultants for Rain Gauge.

The WDD-22 data domain contains the following message:

1. WDD-22.0 Rain Gauge

8.1.22.1 WDD-22.0 Rain Gauge Message

WDD-22.0	Rain Gauge
Method	XML-based data standard

The following is a generic rainfall report as provided by CEDD/GEO:

Table Name: Rainfall - Table
Dated from: 14-Sep-2004 00:00
To: 01-Oct-2006 00:00
Time Interval: 01 day(s) 00 hour(s) 00 minute(s)
Missing Data Note: * - 10% to 50% # - 50% to 100% X - 100%

Start Time	End Time	H12
2004/09/14,00:00	2004/09/15,00:00	0
2004/09/15,00:00	2004/09/16,00:00	0
2004/09/16,00:00	2004/09/17,00:00	0
2004/09/17,00:00	2004/09/18,00:00	0
2004/09/18,00:00	2004/09/19,00:00	11.5
2004/09/19,00:00	2004/09/20,00:00	18
2004/09/20,00:00	2004/09/21,00:00	0
2004/09/21,00:00	2004/09/22,00:00	14
2004/09/22,00:00	2004/09/23,00:00	3
2004/09/23,00:00	2004/09/24,00:00	0
2004/09/24,00:00	2004/09/25,00:00	0
2004/09/25,00:00	2004/09/26,00:00	2.5
2004/09/26,00:00	2004/09/27,00:00	0
2004/09/27,00:00	2004/09/28,00:00	0
2004/09/28,00:00	2004/09/29,00:00	0
2004/09/29,00:00	2004/09/30,00:00	0
2004/09/30,00:00	2004/10/01,00:00	1.5
2004/10/01,00:00	2004/10/02,00:00	0
2004/10/02,00:00	2004/10/03,00:00	0
2004/10/03,00:00	2004/10/04,00:00	0
2004/10/04,00:00	2004/10/05,00:00	0
2004/10/05,00:00	2004/10/06,00:00	0
2004/10/06,00:00	2004/10/07,00:00	0
2004/10/07,00:00	2004/10/08,00:00	0
2004/10/08,00:00	2004/10/09,00:00	0
2004/10/09,00:00	2004/10/10,00:00	0
2004/10/10,00:00	2004/10/11,00:00	0
2004/10/11,00:00	2004/10/12,00:00	0
2004/10/12,00:00	2004/10/13,00:00	0
2004/10/13,00:00	2004/10/14,00:00	0
2004/10/14,00:00	2004/10/15,00:00	0
2004/10/15,00:00	2004/10/16,00:00	0
2004/10/16,00:00	2004/10/17,00:00	0
2004/10/17,00:00	2004/10/18,00:00	0
2004/10/18,00:00	2004/10/19,00:00	0
2004/10/19,00:00	2004/10/20,00:00	0
2004/10/20,00:00	2004/10/21,00:00	0
2004/10/21,00:00	2004/10/22,00:00	0

The data structure of the WDD-22.0 Rain Gauge message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-22.0-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-22.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Rain Gauge	Rain Gauge	-	Rain Gauge Document
1.1	Table Name	Text	Mandatory / Once	Table Name
1.2	Date From	Date Time	Mandatory / Once	Date From
1.3	Date To	Date Time	Mandatory / Once	Date To
1.4	Time Interval	Text	Mandatory / Once	Time Interval
1.5	Missing Data Note	Text	Optional / Once	Missing Data Note
1.6	Rain Gauge identifier	Text	Mandatory / Once	Identifier of Rain Gauge Record
1.7	Rain Gauge Data Record Content	Rain Gauge Data Record	Mandatory / Multiple	Rain Gauge Data Record Content
1.7.1	Date Time Range From	Date Time	Mandatory / Once	Date Time Range From
1.7.2	Date Time Range To	Date Time	Mandatory / Once	Date Time Range To
1.7.3	Rain Level	Text	Mandatory / Once	Rain Level

8.1.23 WDD-23 Project Management and Programme Data

The Project Management and Programme Data messages in this data domain are based on various claim forms currently submitted by the consultants and are used internally within departments for monitoring of the progress of claims. The report submission formats are used for communication of Works Order information among construction consultants.

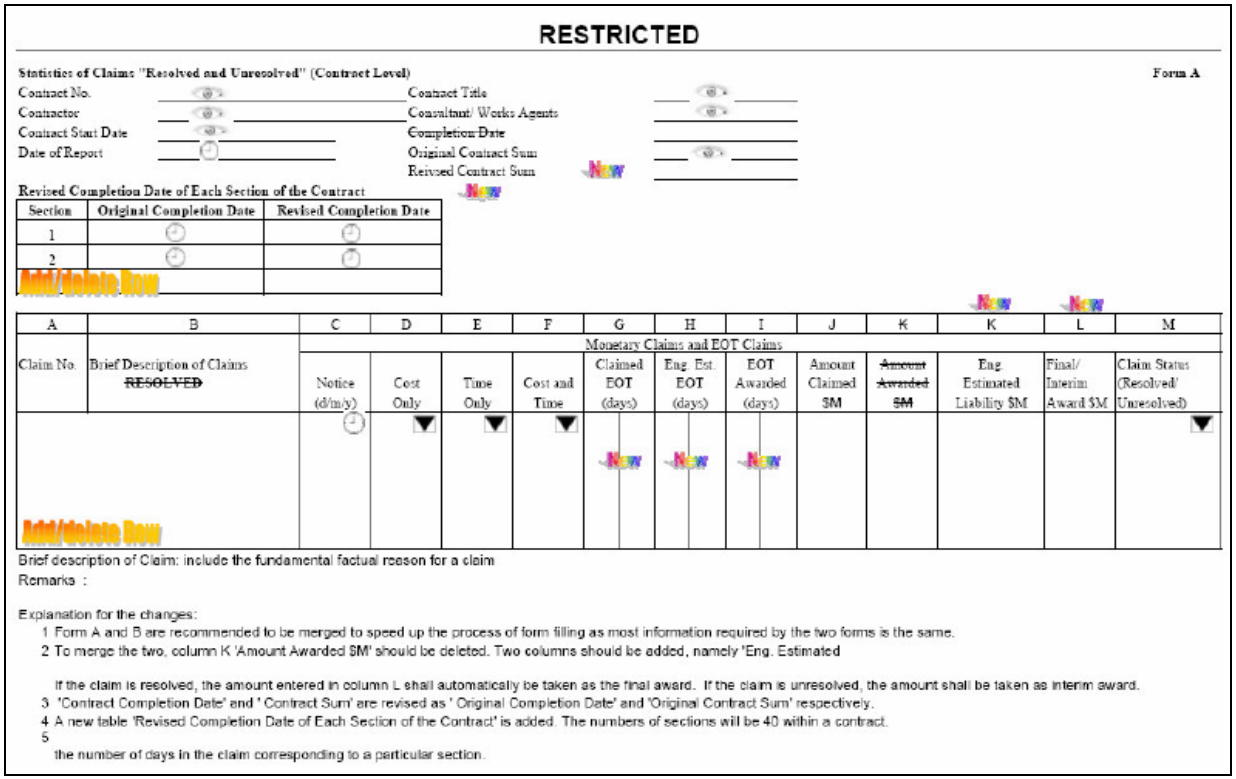
The WDD-23 data domain contains the following three messages:

1. WDD-23.0 Form (A) – Statistic of Claims, refers to section 8.1.23.1 for more details.
2. WDD-23.1 Form (C) – Claim Registry, refers to section 8.1.23.2 for more details.
3. WDD-23.2 Form (D) – Contract Information of Claim, refers to section 8.1.23.3 for more details.

8.1.23.1 WDD-23.0 Statistic of Claim Message

WDD-23.0	Statistic of Claim
Method	XML-based data standard

The following is a copy of the Form (A) - Statistic of Claim as presented in the WPIS Project Work Assignment Brief Appendix 8:



RESTRICTED

Statistics of Claims "Resolved and Unresolved" (Contract Level) — Form A

Contract No. _____ Contract Title _____
Contractor _____ Consultant/ Works Agents _____
Contract Start Date _____ Completion Date _____
Date of Report _____ Original Contract Sum _____
Revised Contract Sum _____

Revised Completion Date of Each Section of the Contract

Section	Original Completion Date	Revised Completion Date
1		
2		

Add/delete Row

A	B	C	D	E	F	G	H	I	J	K	K	L	M
		Monetary Claims and EOT Claims											
Claim No.	Brief Description of Claims ~~RESOLVED~~	Notice (d/m/y)	Cost Only	Time Only	Cost and Time	Claimed EOT (days)	Eng. Est. EOT (days)	EOT Awarded (days)	Amount Claimed $M	~~Amount Awarded $M~~	Eng. Estimated Liability $M	Final/ Interim Award $M	Claim Status (Resolved/ Unresolved)

Add/delete Row

Brief description of Claim: include the fundamental factual reason for a claim
Remarks :

Explanation for the changes:
1 Form A and B are recommended to be merged to speed up the process of form filling as most information required by the two forms is the same.
2 To merge the two, column K 'Amount Awarded $M' should be deleted. Two columns should be added, namely 'Eng. Estimated
If the claim is resolved, the amount entered in column L shall automatically be taken as the final award. If the claim is unresolved, the amount shall be taken as interim award.
3 'Contract Completion Date' and ' Contract Sum' are revised as ' Original Completion Date' and 'Original Contract Sum' respectively.
4 A new table 'Revised Completion Date of Each Section of the Contract' is added. The numbers of sections will be 40 within a contract.
5
the number of days in the claim corresponding to a particular section.

The data structure of the WDD-23.0 Statistic of Claim message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-23.0-1.0.xsd, the associated code list can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-23.0-1.0_codelist.xml and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-23.0-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Claims Statistic	Claims Statistic	-	Statistic Of Claims Document
1.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.2	Contract Title	Text	Optional / Once	Contract Title
1.3	Contractor	Text	Mandatory / Once	Contractor
1.4	Consultant Works Agents	Text	Mandatory / Once	Consultant / Works Agents
1.5	Contract Start Date	Date	Mandatory / Once	Contract Start Date
1.6	Date of Report	Date	Mandatory / Once	Date of Report
1.7	Original Contract Sum	Amount	Mandatory / Once	Original Contract Sum
1.8	Revised Contract Sum	Amount	Optional / Once	Revised Contract Sum
1.9	Revised Completion Date Of Each Section Details	Revised Completion Date Of Each Section	Mandatory / Multiple	Revised Completion Date Of Each Section Details
1.9.1	Section	Identifier	Mandatory / Once	Section Number

Level No.	Data Component	Type	Constraints	Definition
1.9.2	Original Completion Date	Date	Mandatory / Once	Original Completion Date
1.9.3	Revised Completion Date	Date	Mandatory / Once	Revised Completion Date
1.10	Claims Details	Monetary and EOT Claims Content	Optional / Multiple	Monetary and ETO Claims Details
1.10.1	Claim Number	Identifier	Optional / Once	Claim Number
1.10.2	Brief Description	Text	Optional / Once	Brief Description of Claims
1.10.3	Notice Date	Date	Optional / Once	Claim Notice Date
1.10.4	Claim Type	Code	Optional / Once Enumeration = CO,TO,CT	Claim Type
1.10.5	Claimed E O T	Measure	Optional / Once	Claimed Extension of Time (in days)
1.10.6	Eng Est E O T	Measure	Optional / Once	Engineer's Estimation Extension of Time (in days)
1.10.7	E O T Awarded	Measure	Optional / Once	Extension of Time Awarded (in days)
1.10.8	Amount Claimed	Amount	Optional / Once	Amount Claimed (in $M)
1.10.9	Eng Est Liability	Amount	Optional / Once	Engineer's Estimated Liability (in $M)
1.10.10	Final Interim Award	Amount	Optional / Once	Final / Interim Award (in $M)

Level No.	Data Component	Type	Constraints	Definition
1.10.11	Claim Status	Code	Optional / Once Enumeration = R,U	Claim Status

The code lists used in this message are listed below:

Data component: Claim Type

Code	Description
CO	Cost Only
TO	Time Only
CT	Cost and Time

Data component: Claim Status

Code	Description
R	Resolved
U	Unresolved

8.1.23.2 WDD-23.1 Claim Registry Message

WDD-23.1	Claim Registry
Method	XML-based data standard

The following is a copy of the Form (C) - Claim Registry as presented in the WPIS Project Work Assignment Brief Appendix 8:

FORM C

Claim Registry
(Situation as at)

Department _____
Development Office _____

	Claims Notified	Claims Resolved					Claims Unresolved									
			G	I	J	K		D1	E1	F1	G1	H1	I1	J1	J2	K1
Contract No.	Number	Number	E O T Claimed (days)	E O T Awarded (days)	Amount Claimed $M	Amount Awarded $M	Number	No. of Claims for Cost Only	No. of Claims for Time Only	No. of Claims for Cost and E O T	E O T Claimed (days)	Eng. Estimate on EOT (days)	E O T Awarded (days)	Amount Claimed $M	Eng. Estimated Liability $M	Interim Award $M
		Total								Total						

Note: Details on contract title and name of contractor to be separatley listed in Form D.

The data structure of the WDD-23.1 Claim Registry message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-23.1-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-23.1-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Claim Registry	Claim Registry	-	Claim Registry Document
1.1	Situation As At	Date	Mandatory / Once	Situation As At
1.2	Department	Text	Mandatory / Once	Department
1.3	Development Office	Text	Mandatory / Once	Development Office
1.4	Claims Record Content	Claims Record	Optional / Multiple	Claims Record Content
1.4.1	Contract Number	Identifier	Mandatory / Once	Contract Number
1.4.2	Claims Notified Record Content	Claims Notified Record	Mandatory / Once	Claims Notified Record Content
1.4.2.1	Claims Notified Number	Quantity	Mandatory / Once	Claims Notified Number
1.4.3	Claims Resolved Record Content	Claims Resolved Record	Optional / Once	Claims Resolved Record Content
1.4.3.1	Number	Quantity	Mandatory / Once	Claims Resolved - Number
1.4.3.2	E O T Claimed	Measure	Mandatory / Once	Claims Resolved - Extension Of Time Claimed (in days)
1.4.3.3	E O T Awarded	Measure	Mandatory / Once	Claims Resolved - Extension of Time Awarded (in days)

Level No.	Data Component	Type	Constraints	Definition
1.4.3.4	Amount Claimed	Amount	Mandatory / Once	Claims Resolved - Amount Claimed (in $M)
1.4.3.5	Amount Awarded	Amount	Mandatory / Once	Claims Resolved - Amount Awarded (in $M)
1.4.4	Claims Unresolved Record Content	Claims Unresolved Record	Optional / Once	Claims Unresolved Record Content
1.4.4.1	Number	Quantity	Mandatory / Once	Claims Unresolved - Number
1.4.4.2	Number Of Claims For Cost Only	Quantity	Mandatory / Once	Claims Unresolved - Number Of Claims For Cost Only
1.4.4.3	Number Of Claims For Time Only	Quantity	Mandatory / Once	Claims Unresolved - Number Of Claims For Time Only
1.4.4.4	Number Of Claims For Cost And E O T	Quantity	Mandatory / Once	Claims Unresolved - Number Of Claims For Cost And Extension Of Time
1.4.4.5	E O T Claimed	Measure	Mandatory / Once	Claims Unresolved - Extension Of Time Claimed (in days)
1.4.4.6	Eng Est On E O T	Measure	Mandatory / Once	Claims Unresolved - Engineer's Estimate On Extension of Time (in days)
1.4.4.7	E O T Awarded	Measure	Mandatory / Once	Claims Unresolved - Extension of Time Awarded (in days)
1.4.4.8	Amount Claimed	Amount	Mandatory / Once	Claims Unresolved - Amount Claimed (in $M)
1.4.4.9	Eng Est Liability	Amount	Mandatory / Once	Claims Unresolved - Engineer's Estimated Liability (in $M)
1.4.4.10	Interim Award	Amount	Mandatory / Once	Claims Unresolved - Interim Award (in $M)
1.5	Claims Resolved Total Record Content	Claims Resolved Total Record	Optional / Once	Claims Resolved Total Record Content

Level No.	Data Component	Type	Constraints	Definition
1.5.1	Total E O T Claimed	Measure	Mandatory / Once	Total - Claims Resolved - Extension Of Time Claimed (in days)
1.5.2	Total E O T Awarded	Measure	Mandatory / Once	Total - Claims Resolved - Extension of Time Awarded (in days)
1.5.3	Total Amount Claimed	Amount	Mandatory / Once	Total - Claims Resolved - Amount Claimed (in $M)
1.5.4	Total Amount Awarded	Amount	Mandatory / Once	Total - Claims Resolved - Amount Awarded (in $M)
1.6	Claims Unresolved Total Record Content	Claims Unresolved Total Record	Optional / Once	Claims Unresolved Total Record Content
1.6.1	Total E O T Claimed	Measure	Mandatory / Once	Total - Claims Unresolved - Extension Of Time Claimed (in days)
1.6.2	Total Eng Est On E O T	Measure	Mandatory / Once	Total - Claims Unresolved - Engineer's Estimate On Extension of Time (in days)
1.6.3	Total E O T Awarded	Measure	Mandatory / Once	Total - Claims Unresolved - Extension of Time Awarded (in days)
1.6.4	Total Amount Claimed	Amount	Mandatory / Once	Total - Claims Unresolved - Amount Claimed (in $M)
1.6.5	Total Eng Est Liability	Amount	Mandatory / Once	Total - Claims Unresolved - Engineer's Estimated Liability (in $M)
1.6.6	Total Interim Award	Amount	Mandatory / Once	Total - Claims Unresolved - Interim Award (in $M)

8.1.23.3 WDD-23.2 Contract Information of Claim Message

WDD-23.2	Contract Information of Claim
Method	XML-based data standard

The following is a copy of the Form (D) – Contract Information as presented in the WPIS Project Work Assignment Brief Appendix 8:

FORM D

Contract Information

Development Office _____

Claim Registry (Situation as at)

Contract No.	Contract Title	Consultant	Name of Contractor	Works Substantially Completed (Date)	Works on-going

The data structure of the WDD-23.2 Contract Information of Claim message is specified in the following table. The detailed schema definition can be found at http://www.wpis.gov.hk/wpis/wdd/v1.0/wdd-23.2-1.0.xsd and the XML data template file can be found at http://www.wpis.gov.hk/wpis/template/v1.0/wdd-23.2-1.0.tplt. These are also detailed in the Release Notes of Library of WPIS Batch 2 Schemas and Templates, Annex B.

Level No.	Data Component	Type	Constraints	Definition
1	Contractor Information Claim	Contractor Information Claim	-	Contractor Information of Claim Document
1.1	Development Office	Text	Mandatory / Once	Development Office
1.2	Claim Registry	Text	Mandatory / Once	Claim Registry
1.3	Situation As At	Date	Mandatory / Once	Date of Situation
1.4	Contractor Claim Details	Contractor Claim Record	Optional / Multiple	Contractor Claim Details
1.4.1	Contract Number	Identifier	Optional / Once	Contract Number
1.4.2	Contract Title	Text	Optional / Once	Contract Title
1.4.3	Consultant	Text	Optional / Once	Consultant
1.4.4	Name of Contractor	Name	Optional / Once	Name of Contractor
1.4.5	Work Completed Date	Date	Optional / Once	Work Substantially Completed Date
1.4.6	Works Ongoing	Text	Optional / Once	Works On-Going

8.1.24 WDD-24 Knowledge Management Information Distribution Standard

WDD-24.0	Knowledge Management Information Distribution
Method	Reference to existing standard

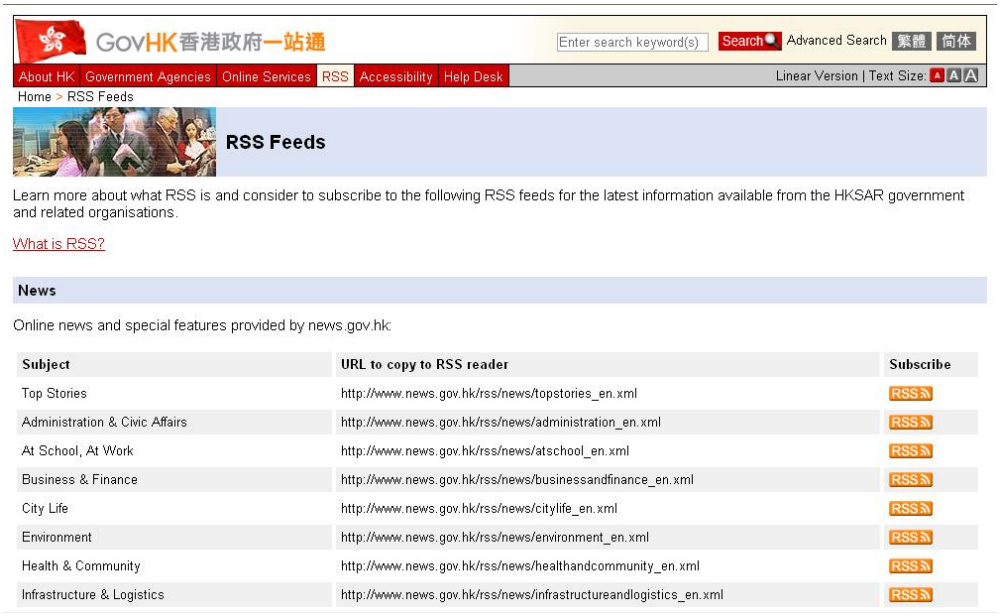
Knowledge management is a set of best practices for identification, creation, representation and distribution of knowledge within an organization with the prime objectives of improving operational efficiency, encouraging innovation, promoting collaboration and attaining higher project success rate through knowledge reuse, sharing and transfer. Currently, knowledge management information distribution can be done through Passive and Active modes. In Passive knowledge distribution mode, the knowledge consumer would need to pro-actively locate the information via available search facilities within the knowledge management system; whereas in Active knowledge distribution mode, a syndication mechanism is utilized to present updated information to the subscriber automatically.

The most common example of knowledge syndication can be found in online newsletters and forums, where information from diverse sources are aggregated and distributed. Subscribers receive custom, up-to-date information of their topics of interest without having to regularly check the sources for updates. The mechanism typically utilized by Active knowledge distribution mode is an international standard called RSS 2.0.

RSS stands for “Really Simple Syndication” which is an information syndication format. RSS is a dialect of XML. All RSS files must be conform to the XML 1.0 specification as published by W3C. An RSS message, at a minimum, is a document describing a “channel” consisting of URL-retrievable items. Each item consists of a title, link, and a brief description. The RSS 2.0 specification also supports an optional element called "enclosure" (attachment) which can be used for the distribution of any media type such as text, images, audio, video, and other application specific data e.g. MS Word or PDF files.

RSS 2.0 format is an efficient and effective means for distributing information and facilitating knowledge sharing among large audience. As an international standard for information syndication, RSS 2.0 format is widely used on the internet and among corporate intranets for knowledge distribution and sharing. RSS 2.0 has been adopted by the Hong Kong Government Portal (http://www.gov.hk) to provide up-to-date information to the public.

Information distributed via RSS on the Hong Kong Government Portal originates from various Government bureaux, departments and related organizations covering news, government initiatives and services etc. RSS subscribers can use an internet browser equipped with an RSS subscription function, an email service that support RSS subscription, or a dedicated RSS reader.



The following is an excerpt of an RSS message published by Hong Kong Trade Development Council (http://www.tdctrade.com/rss/hkTraderNews_en.xml) on the Hong Kong Government Portal:

```
<rss version="2.0">
        <channel>
                <language>en-uk</language>
                <title>
                Hong Kong Trader, a monthly online newsletter from the Hong Kong Trade
                Development Council.
                </title>
                <description>
                We provide business updates, success stories and China insights to help
                overseas firms capture opportunities in Hong Kong, the Chinese mainland
                and beyond
                </description>
                <link>http://www.hktrader.net/</link>
                <category domain="">tdctrade.com</category>
                <copyright>
                Copyright 2007 Hong Kong Trade Development Council. All rights reserved.
                </copyright>
                <image>
                        <title>tdctrade.com</title>
                        <url>http://www.tdctrade.com/rss/img/tdclogo_trader.gif?wt_img
                        =379</url>
                        <link>http://www.hktrader.net/</link>
                        <width>129</width>
                        <height>24</height>
                        <description>tdclogo</description>
                </image>
                <item>
                        <title>Passenger and airfreight numbers up</title>
                        <link>http://www.hktrader.net/200802/dn/2008feb15news1.htmw
                        jid=RSS&w_typ=trader&DCSext.dept=2&WT.mc_id=1003623
                        </link>
                        <pubDate>Fri, 15 Feb 2008 00:00:00 GMT</pubDate>
                        <description>HK's Cathay Pacific Airways and Dragonair carried
                        more than 2 million passengers in January, a rise of 17.8 per cent
                        on the same month last year. Airfreight carried by the two airlines
                        was also up by 9 per cent year on year. <i>Source:
```

```
                    SCMP</i><img
                    src="http://www.tdctrade.com/rss/img/blank_trader.gif?wt_img=4
                    565" border="0"><img
                    src="http://wtsdc.tdctrade.com/dcsk3op4sticfvhi0ojgvzxyn_4f4f/nj
                    s.gif?dcsuri=/nojavascript&WT.js=No&DCSext.dept=2&WT.mc_id=
                    1003615" border="0"><img
                    src="http://wtsdc.tdctrade.com/dcsk3op4sticfvhi0ojgvzxyn_4f4f/nj
                    s.gif?dcsuri=/nojavascript&WT.js=No&DCSext.dept=2&WT.mc_id=
                    1003609" border="0">
                    </description>
            </item>
        </channel>
</rss>
```

Similar to other XML-based documents, messages created using RSS 2.0 specification are in human-readable XML format. However, it could be overlaid with XSL (eXtensible Stylesheet Language) stylesheet to transform the XML standard into various formats that can be disseminated by other systems or applications. For a complete reference of the RSS 2.0 Specification, please refer to the official RSS site at http://blogs.law.harvard.edu/tech/rss.

8.1.24.1 Recommendation

It is recommended to use RSS 2.0 standard for WDD 24 since RSS 2.0 is one of the most efficient and widely accepted standard for knowledge and information distribution both internationally and locally.

9 Facilities to Assist the Use of WPIS

In order to facilitate user in applying the WPIS standard in exchanging electronic data in a standardized manner, specially developed WPIS Tools will be posted on the WPIS web page for public download.

It should be noted that the WPIS, being an information standard, does not prescribe any tools. Though WPIS Tools will be made available, their use is not mandatory or prerequisite for applying the WPIS in the preparation of WPIS data files. In fact, user can use the NotePad (which usually comes with Windows OS) to enter data into the WDD data file template or Adobe Acrobat Professional 9.0 (purchase required), or Adobe Reader 9.0 to enter and save data into PDF e-Forms of some WDDs to form the WPIS data file (see section 9.2 for more details about PDF e-Forms). Therefore, applying WPIS would not affect the use of other common software such as the Microsoft Office Suite.

9.1 WPIS Tools

To facilitate the use of WPIS XML based data standard, DEVB is in the process of developing 3 software applications for posting on the DEVB website for public download. These software applications will not form part of the WPIS data standard. They are:

1. WPIS File Composer
2. WPIS File Reader
3. WPIS Message System

It should be noted that user may choose **not** to install and run these software when using the WPIS data standard.

(1) WPIS File Composer is a Windows-based application and has the following major functions:

(a) define the data schema of the user defined data domain (UDD) and edit the corresponding data schema file;
(b) generate the WPIS dissemination protocol file;
(c) generate XML template from data schema;
(d) generate the data conversion protocol data file for transforming and mapping proprietary data set including PDF e-form to WPIS data domains or user defined data domains; and
(e) generate the WPIS compliant data file.

Note: (1) Apart from using the WPIS File Composer to generate the WPIS data file compliant to the concerned data domain, user could use the

Notepad to edit the corresponding data template file in order to generate the required WPIS compliant data file.

(2) Apart from using the UDD editor of the WPIS File Composer, user could use the Business Information Model (BIM) spreadsheet (http://www.xml.gov.hk/en/download/bim_v1_0.xls) and the script generator downloadable from OGCIO web site (http://www.xml.gov.hk/en/download/index.htm) to generate the data schema of his UDD.

(2) WPIS File Reader is a Windows-based application and has the following major functions:

(a) generate the data conversion protocol data file for transforming and mapping data set of WPIS data domains or user defined data domains to a formatted output PDF e-form;

(b) generate the XML Style Transformation (XSLT) report template file for transforming and mapping the WPIS compliant data file to formatted output;

(c) generate report of WPIS compliant data file based on the XSLT report template and PDF e-form template; and

(d) generate proprietary data file from WPIS compliant data file.

Note: (1) When the user has procured and installed the Adobe Acrobat 9.0 Professional, he could use the WPIS File Reader to save the output in PDF e-form format or the PDF e-form template electronically.

(2) When the user only has the Acrobat Reader, he could use the WPIS File Reader to print the hard copy of the PDF e-form **but** cannot save the PDF e-form electronically.

(3) WPIS Messaging System (WMS) will be implemented as Windows-based service to automate the dissemination of the incoming WPIS Messages to backend systems, if any or the receiver. This WMS will help automate the retrieval of WPIS messages through email (including POP3, SMTP), HTTP and FTP and disseminate the messages to the user or to his backend IT systems, if any according to the associated dissemination protocol data file attached in the WPIS emails.

It needs to emphasize that it is not a necessity to install and run the WMS, unless the user wishes to automate the receiving and disseminating the WPIS messages to the receiver or the backend IT systems, if any.

9.2 PDF e-form

Under the Works Project Information Standard (WPIS) framework, data files are encoded as ASCII text files in XML format. The resulting WPIS data files are in XML format and can be easily read and parsed as they are merely text files.

However, the WPIS data file does not carry information such as the company logo, directors, address, etc. Take the WPIS data file of WDD-6.0 "Concrete Test Cube Register Message" as an example. Recipient of the said data file would like to have the data printed bearing the logo and other information of the laboratory which did and reported the testing of which the data are encoded in the WPIS data file. However, the WPIS data file does not have the relevant information encoded.

To supplement the non-project related but essential information such as the company logo, etc. during the exchange of the project data, the PDF e-form is chosen as the presentation media for data capturing and display. Once data had been entered into the form, such information is captured in proprietary PDF format.

In order to facilitate exchange of data that complies with WPIS standard, the proprietary PDF format data must be transformed to WPIS compliant data format of the corresponding data domain.

To perform the above capability requires a PDF e-form to be created together with a data conversion protocol data file. The available PDF e-form files and associated data conversion protocol data files will be posted on the Development Bureau web site, http://www.wpis.gov.hk, for free download. In addition user can use Adobe Acrobat Professional 9.0 to create additional forms and use the software provided by DEVB to create the data conversion protocol data file.

PDF e-Forms and their data conversion protocol data files are the two components that allow users to exchange data. The sender uses Adobe Acrobat Professional 9.0 to enter data into the PDF e-Form of a WDD and save as a PDF e-form file containing data. The receiver could then transform the duly completed PDF e-form file to a WPIS data file by using the WPIS Composer, Reader or Standalone Data Conversion tool, along with the corresponding data conversion protocol data file.

Using PDF e-form is optional and this does not form part of the WPIS. To use PDF e-form you will require Adobe Acrobat professional 9.0 (purchase required), or Adobe Reader 9.0 to enter and save data into PDF e-Forms.

10 Overview of WPIS Documentation

The standards of procedures, rules and semantics that are used in formulating the data schemas of WDDs together with the library of the data schemas will be promulgated as the WPIS standard for the use of the Hong Kong construction industry.

The WPIS standard will be promulgated by DEVB. The WPIS standard comprises of two documents:

(a) The WPIS Reference Document on WPIS stating the standards of procedures, rules and semantics that are used in formulating the data schemas of WDDs. The WPIS Reference Document for the final standard is attached in Annex A; and

(b) The release notes of the Library of WPIS Schemas and Templates (e.g. code association files, date file templates). The release notes will cover the catalogue, details, explanatory notes and semantics of each WDD data schema. The release notes of the Library of WPIS Schemas and Templates is attached in Annex B.

The WPIS Reference Document and its release notes will be posted on the DEVB web site www.wpis.gov.hk for free download.

11 Overview of PDF e-Form Documentation

The PDF e-form documentation comprises two documents:

(a) The document on PDF e-form stating the details, explanatory notes, procedures, rules, and semantics in creating the e-form and corresponding e-form conversion protocol files. The PDF e-form Reference Document is attached in Annex C; and

(b) The release notes of the Library of the PDF e-form Schemas and their associated data files. The release notes will cover the catalogue, details, explanatory notes and semantics of each PDF e-form. The release notes of the PDF e-form Schemas and associated data files is attached in Annex D.

The WPIS PDF e-forms Reference Document and its release notes will be posted on the DEVB web site www.wpis.gov.hk for free download.

12 Glossary

AGS	- Association of Geotechnical and Geoenvironmental Specialists
BD	- Buildings Department
CEDD	- Civil Engineering and Development Department
CSSM	- Construction Site Safety Manual
DEVB	- Development Bureau
GLD	- Government Logistics Department
GEO	- Geotechnical Engineering Office
HKI&IDO	- Hong Kong Island and Islands Development Office
NTN&WDO	- New Territories North and West Development Office
OGCIO	- Office of Government Chief Information Officer
PAH	- Project Administration Handbook
PDF	- Portable Document Format
RSS	- Really Simple Syndication
UDD	- User-Defined Data Domain
W3C	- World Wide Web Consortium
WDD	- WPIS Data Domain
WPIS	- Works Project Information Standards
WSD	- Water Supplies Department
XML	- Extensible Markup Language
XSD	- XML Schema Definition

13 Consulting Working Group (CWG)

A WPIS Consulting Working Group (CWG) is formed so that representatives from local construction industries can be consulted to obtain their comments, recommendations and support during the process of standard development from Prototype Standard, to Draft Standard and to Final Standard.

The CWG consists of the following organizations:-

Organization
Development Bureau (DEVB)
Hong Kong Observatory (HKO)
Housing Department (HD)
Housing, Planning and Lands Bureau (HPLB)
Office of the Government Chief Information Officer (OGCIO)
Mass Transit Railway Corporation Limited (MTRC)
The Association of Architectural Practices (AAP)
The Association of Consulting Engineers of Hong Kong (ACEHK)
Hong Kong Construction Association (HKCA)
Hong Kong Electrical & Mechanical Contractors' Association (HKEMCA)
Hong Kong Federation of Electrical and Mechanical Contractors Limited (HKFEMCL)
Association of Consultant Quantity Surveyors (ACQS)
Joint Utilities Policy Group (JUPG)
The Hong Kong Institute of Architects (HKIA)
The Hong Kong Institution of Engineers (HKIE)
The Hong Kong Institution of Surveyors (HKIS)
Hong Kong Computer Society (HKCS)
City University of Hong Kong (CityU)
Hong Kong Institute of Vocational Education (HKIVE)
Hong Kong Polytechnic University (HK PolyU)
Hong Kong University of Science & Technology (HKUST)
University of Hong Kong (HKU)
Chinese University of Hong Kong (CUHK)
Hewlett-Packard HKSAR Limited (HP)

In addition to CWG, the project team has also consulted members and experts of the industry, government departments and solution vendors during the data domain collection and the data standard development process.

Annex A – WPIS Reference Document

< Please refer to WPIS WP3 – Annex A Reference Document V0.1.doc>

Annex B – Release Notes of Library of WPIS Batch No. 2 Schemas and Templates

< Please refer to WPIS WP3 - Annex B Release Notes V0.1.doc>

Annex C – PDF e-form Reference Document

< Please refer to WPIS WP3 - Annex C PDF E-form Reference Document V0.1.doc>

Annex D – Release Notes of Library of Batch No. 2 PDF e-Form Schemas and their Associated Data Files

< Please refer to WPIS WP3 - Annex D PDF E-form Release Notes V0.1.doc>