Collaborative Delivery Framework

Works Information

Smart Motorways Programme:

Tranche 4: M62 J10 to J12

Revised

Version	Comments	Author / Date

WORKS INFORMATION

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EMPLOYER'S WORKS INFORMATION SECTION

WI 100

Description of the Works

WI 100 Description of the works

Design, construction, testing and commissioning works are to be provided by the *Contractor* from time-to-time, as instructed by the *Employer* as part of the wider programme of works to be carried out under the Collaborative Delivery Framework (CDF).

The CDF is a collaborative framework developed to streamline delivery of the increased capital investment proposed for the future growth, development, and upgrade of the network.

The works are required to enhance the capacity, reliability of the UK strategic road network in order to provide better and enhanced journey time reliability for Highways England customers.

The specific works to be carried out under this Package Contract are described in WI 110 Scope of works.

WI 105 Employer's Objectives

The works are provided as part of the wider SR13 and SR14 investment programmes and are to be delivered in conjunction and collaboration with other CDF framework consultants and contractors.

The objectives of the framework are set out in Annex 1 of the Framework Information.

The main objectives of the Smart Motorways Programme, and schemes therein, are to increase capacity and thereby reduce congestion and improve journey time reliability. Other objectives are to:

- provide additional capacity while ensuring the safe and economic operation of the motorway;
- make the best use of existing infrastructure, where possible, by providing additional capacity within the limits of the existing highway boundary;
- suit the requirements of on-going maintenance, the needs of Operations Directorate (OD) and Information Technology Directorate (ITD), and minimise whole life costs;
- minimise detrimental effects on the surrounding road network;
- improve the currency and quality of information provided to drivers;
- support local development plans and the regional spatial strategy;
- Ensure that the scheme does not have a significant detrimental effect on Air Quality when compared to the 'do minimum' scenario.

The key objectives of these Package Contracts are:

- To place safety at the heart of delivery, changing the way we identify and manage health and safety in design, reducing the risk of exposing personnel to harm during construction, operation and maintenance.
- To deliver the schemes with a step change reduction in customer disruption compared to current methodology.
- To deliver the schemes with a focus on minimising network occupancy compared to current methodology*.
- To deliver the above objectives whilst reducing the overall cost to the economy

compared to current day practices.

- To facilitate the design and delivery of significant performance improvements compared to earlier Smart Motorway schemes.
- To create an organisation that is collaborative, focusses on relationships and has the safety of all at its heart.

* Network occupancy shall be measured in km -months as the total 'lane road space' occupied during the total duration taken for construction where a 'lane' equates to either the width of hard shoulder or lane 3 behind traffic management.

WI 110 Scope of works

The *Employer* is implementing highway technology interventions across the network identified as individual schemes that share similar characteristics e.g. no land take required; technology based. To maximize efficiencies in the scheme lifecycle, these schemes will be delivered by the *Employer* as an investment portfolio, or programme termed the Smart Motorway Programme (SMP). There is a focus on delivering operational outcomes on the network, resulting in legacy improvements for the customers.

The *Employer* is seeking to appoint a supplier to assist in delivering the SMP works and services for M62 Junction 10 to Junction 12.

The interventions deliver new and upgraded roadside technology infrastructure, and new and upgraded network assets and operating procedures that will support operating regimes that are aligned to the *Employer*'s business plan objectives.

The *Employer* has developed the Operational Concept (Design Fix 1) and will provide the Preliminary Design (Design Fixes 2 and 3, upto SGAR3) for this scheme.

The *Employer* seeks to appoint under CDF Lot 3 suppliers (*Delivery Partners*) to undertake subsequent works that includes:

- Phase 1: the initial familiarisation into the pre-construction phase relating to PCF Stage 5, including design, buildability reviews, construction planning, construction preparation activities, scheme target price preparation and agreement to enable swift and efficient commencement of the construction phase once approved and instructed by the *Employer*. It covers the period from Main Contract date, through delivery of the Stage 5, to the issue of the notice to proceed to construction.
- Phase 2: completion of design, the construction of the scheme, including provision of all permanent and temporary works, works testing, commissioning and handover. The Contractor undertakes all related activities necessary to provide the Works, including the production of all required deliverables relating to PCF Stages 6 and 7. It covers the period from the issue of the Notice to Proceed to Construction to the issue of the final Defects Certificate.

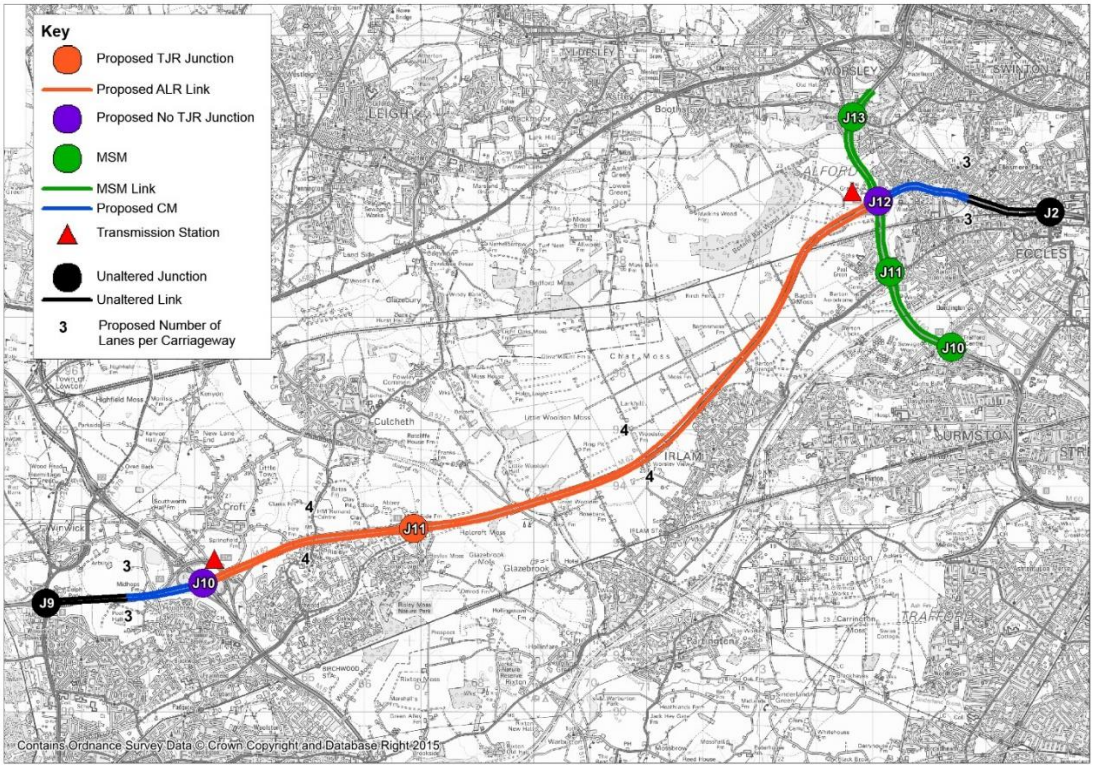
The scope of work for this scheme is as follows:

M62 Junction 10 to Junction 12

The M62 motorway is a key corridor in the Strategic Road Network (SRN), and the main east-west transport axis, connecting key areas of the country from Manchester to Liverpool. The M62 Smart Motorway (SM) scheme length between J10 (Warrington) and J12 (Manchester), and is approximately 16km. There are 3 junctions along the route, with Junction 10, the Croft Interchange, providing an important connection to the M6, the London to West Scotland motorway.

The M62 falls within the boundary of Highways England Area 10, currently operated under an Asset Support Contract, as well as the North West Regional Control Centre.

The section is currently dual 3-lane motorway (D3M) and, following agreement of the operational concept by the Smart Motorway Programme, the SM scheme will convert the hardshoulder into a permanent live lane, in accordance with IAN 161/15 "Smart Motorways", to create dual 4-lane (D4M) All-Lane Running.



The M62 J10-12 has been defined as a 'Single Option' scheme and is to be progressed from options within the Smart Motorways toolkit. The validated output from Stage 3 is to provide an 'All Lane Running' solution including:

- The upgrading of the central reserve to rigid concrete barrier (RCB)
- The provision of four permanent running lanes, by converting the hard shoulder into Lane 1, on the links J10 to J11, J11 to J12, in accordance with Interim Advice Note 161/15.
- The provision of redesigned junction layouts to accommodate lane gain and lane drop arrangements at the terminal junctions.

- No additional land required

The works to be undertaken are the design and construction of Smart Motorway 'All Lane Running' infrastructure, including but not limited to gantry works, provision of Variable Message Signs (VMS) and Emergency Refuge Areas (ERAs) and installation of technology in accordance with IAN 161/15. This notionally comprises the following asset quantities (NB: exact quantities to be confirmed by the Delivery Partner during Design Fix 4):

Proposed Assets	Type	Estimated Asset Quantities			
		New	Retain[1]	Remove	SMP Total
Vehicle Restraint	Central Reserve RCB	8.6 km			8.6 km
	Verge Mounted VRS	20.1 km			20.1 km
Drainage	Surface Water Channel	1.8 km			1.8 km
	Carrier Drain	0.1 km	26.9		27.0 km
	Kerb and Gully	20.1 km			20.1 km
Pavement	Lane 1/4 widening + hard shoulder	71,425m2			71,425m2
ERA	Emergency Refuge Areas	11			11
Structures	VMS		1		1
	Superspan Gantry	7	4		11
	Cantilever	20	12	2	32
Signs	MS4	38	6		77
	MS3	2	5		
	MS2	2		17	
	EMS		11	65	
	ADS, etc	13			
Signals	AMI	88	14		111
	ESS[2]	7	2	2	
	MS1				
MIDAS	Mainline Loop Sites	34	11	34	103
	Mainline Radar	24			
	Slip Loop Sites				
CCTV[3]	2nd Gen	15	14		29
ERT	354 Pod	11	1	1	13
HADECS	v3	2			2
ROTTMS	Remote Operated TTM	56			56

1 A detailed existing asset inventory assessment is required to determine individual asset status.
2 Retained ESS will be upgraded to post mounted AMIs.
3 Subject to visibility verifications.

The *Employer* shall complete the deliverables as required for Stage 3 PCF products. These are targeted at achieving agreement of the operational regime for each intervention as SGAR3. The deliverables are consistent across all schemes within the Smart Motorways Programme as follows:

- Technical Outputs:
  - Preliminary Design & key features (including digital model)
  - Design Strategy Record
  - Agreed scope of asset enablers (SMP) and asset renewals (OD)
  - Drainage Strategy
  - Preliminary Technology Design
  - Outline NRTS Design
  - Structures Scoping Report
  - Structures Options Report
  - Environmental Assessment Report
  - Environmental Management Plan
  - Environmental Mitigation Design
  - Geotechnical Statement of Intent
  - Preliminary Sources Study Report (where applicable)
  - Geotechnical Risk Register
  - PSCRG Technical Notes to advise on High Priority issues
  - Departures from Standard (DfS) Checklist

The Contractor shall validate these deliverables and then complete the detailed design.

EMPLOYER'S WORKS INFORMATION SECTION

WI 200

General constraints on how the Contractor Provides the Works

WI 200 General constraints on how the Contractor Provides the Works

WI 205 General constraints

Project risks

The *Employer* has carried out a risk assessment of the project and set out this analysis in a risk register. A copy of this list is included at Appendix K.

Following award of the contract the *Project Manager* combines the risks contained in Contract Data Part one with those in Contract Data Part two to form the first Risk Register.

The risks set out in this Risk Register are reviewed by the *Project Manager* and the *Contractor* at a risk reduction meeting within four weeks after the *starting date*.

The *Contractor* appoints a Risk Manager who:

- Is experienced in using a variety of risk management tools and procedures in accordance with industry best practice (ISO31000) guidelines, including:
    - Risk registers, templates and reports
    - Qualitative risk analysis techniques
    - Quantitative risk analysis techniques
    - Risk systems and data repositories
    - Risk escalations
- Actively identifies and manages both threats and opportunities within the risk registers
- Acts as the project-level risk management expert
- Is experienced in facilitating risk workshops
- Reviews the risk register monthly with project management teams and periodically with their Highways England Programme Risk Manager
- Provides monthly risk management registers, periodic reports and data analysis in the format required by the *Employer* to coincide with monthly reporting timescales.
- Promotes a consistent approach to risk management across the framework
- Works with their respective Highways England Programme Risk Manager to promote best-practice risk management knowledge share
- Uses Highways England's chosen risk management system, Xactium, to identify and manage risks.

In addition to this, the *Contractor:*

- Shares its risk registers, forecasts and final costs with other suppliers to allow risk reduction across the programme

- Reports separately on their financial position regarding project and programme risk
- Uses the *Employer's* Project Control Framework (PCF) products for risk management

Energy Efficiency Directive

The *Contractor*

- complies with the requirements of Procurement Policy Note 7/14 entitled "Implementing Article 6 of the Energy Efficiency Directive" ("**PPN 7/14**") in Providing the Works and
- ensures that any new products purchased by it for use partly or wholly in providing the Works comply with the standard for products in Directive 2012/27/EU.

The *Contractor* demonstrates to the *Project Manager* how any new products purchased by it for use partly or wholly in providing the Works comply with the requirements of PPN 7/14.

Environmental requirements

In providing the Works the *Contractor* complies with the *Employer's* environmental policy, which is to conserve energy, water, and other resources, reduce waste and phase out the use of ozone depleting substances and minimise the release of greenhouse gases, volatile organic compounds and other substances damaging to health and the environment.

Paper for written outputs produced by the *Contractor* relating to the contract complies with the relevant sustainable **Government Buying Standards** and is used on both sides where appropriate. Suppliers that have certified their products as meeting Government Buying Standards are identified on the buying solutions website www.buyingsolutions.gov.uk.

Goods purchased by the *Contractor* on behalf of the *Employer* (or which will become the property of the *Employer*) comply with the relevant minimum environmental standards specified in the **Government Buying Standards**.

Site Waste Management Plan

In order to reduce the need for waste disposal, the *Contractor* minimises the generation and environmental impacts of wastes arising during the Works and maximises opportunities for the re-use and recovery of wastes. The *Contractor* produces and maintains a site waste management plan.

The *Contractor* makes any necessary applications to the local authority and/ or the Environment Agency, under the terms of the Waste Management Licensing Regulations 1994 (as amended), and the Town and Country Planning Act (1990) for the storage, treatment, or disposal of wastes.

Construction Environmental Management Plan

Interim Advice Note (IAN) 183/14 provides guidance on the requirements of the Construction Environmental Management Plan (CEMP).

The *Contractor* prepares a CEMP in accordance with the *Employer*'s guidance and in advance of the commencement of the construction of the project. If so directed by the *Project Manager* the *Contractor* prepares the CEMP at an earlier time. An outline Environmental Management Plan is available from the *Project Manager*.

The CEMP is agreed with the appropriate Statutory Consultees, Local Authorities, and the *Employer* prior to implementation.

The *Contractor* reviews and updates the CEMP as necessary to ensure that it continues to ensure the satisfactory progress of the proposed project with respect to environmental management and mitigation.

Handover Environmental Management Plan

Interim Advice Note (IAN) 183/14 provides guidance on the requirements of the Handover Environmental Management Plan (HEMP).

The Contractor prepares a HEMP six months prior to Section 1 of the works. This covers the activities required to ensure the effective long-term management of environmental matters associated with the operation of the works. The HEMP is agreed with the appropriate statutory bodies and local authorities prior to implementation.

General Constraints applicable to the Contract

M62 J10-12:

- There is a requirement to commence some critical construction activities by the 31st of March 2018 before it is anticipated a Notice to Proceed can be issued. The *Contractor* is to agree this package with the *Project Manager* prior to commencement.
- It will be necessary to liaise with various national and local schemes across the North West region that have committed SoW dates coincident with the M62 J10-12 (SoW: March 2018; Open for Traffic: March 2020), to ensure that the impact of these schemes are fully taken into account, during design and construction. These include, but are not restricted too:
    - M6 J21a-26 Smart Motorway: March 2019
    - M60 J20-4 Smart Motorway: March 2019
    - M62 J20-25 Smart Motorway: September 2019
    - M56 J6-8 Smart Motorway: March 2020.
- The discrete and cumulative impacts from a number of these schemes, plus local authority schemes, in close proximity to the M62 corridor will require collaborative planning and coordinated roadspace across multiple parties. Network occupancy across the North West region will need to be carefully managed (e.g. road worker

exposure, customer disruption, cumulative impacts). The constraint that the required network occupancy may not be available must be actively managed.

- The M6 J21a-26 Smart Motorway scheme will commence construction prior to the completion of the M62 J10-12 works. As the projects intersect (M62 J10/ M6 J21a) there is a risk that the required network occupancy will not be available. This constraint must be actively managed.
- The asset data is currently being collated and assessed. There will be some gaps at the end of the Preliminary Design. A gap analysis is required to ascertain what is outstanding, and a risk based approach to data mitigation. The *Contractor* shall complete this works.
- Environment surveys will be required prior to construction, the number and type of these needs to be considered and planned to avoid delays to the scheme.

WI 206 Scheme Budget (including costs the *Employer* incurs with Others)

Please refer to Annex Q for the Scheme Budget.

WI 210 Insurance

The *Contractor* is required to have in place the Required Insurances described in the Insurance Table shown in Annex J appropriate for the applicable Lot.

WI 215 <u>Conflict of interest</u>

WI 215.1 The *Contractor* does not take an action which would cause a conflict of interest to arise in connection with this contract.

WI 215.2 The *Contractor* notifies his employees and subcontractors (at any stage of remoteness from the *Employer*), and procures that any subcontractor (at any stage of remoteness from the *Employer*) notifies its employees, who are engaged in Providing the Works that they must not take an action which would cause an actual or potential conflict of interest to arise in connection with the *works*.

WI 215.3 The *Contractor* ensures that any employee of the *Contractor* or of any subcontractor (at any stage of remoteness from the *Employer*) who is engaged in providing the Works completes a declaration of interests and conflict of interests in the form set out in Annex [●]. The *Contractor* issues to the *Project Manager* any completed declaration of interests and conflict of interests.

WI 215.4 The *Contractor*

- immediately notifies the *Project Manager* and
- procures that any subcontractor (at any stage of remoteness from the *Employer*) immediately notifies the *Contractor*

if there is any uncertainty about whether a conflict of interest may exist or arise.

WI 215.5 Following a notification from the *Contractor*, the *Project Manager* may

- require the *Contractor* to stop providing the Works until any conflict of interest is resolved or

- require the *Contractor* to submit to the *Project Manager* for acceptance a proposal to remedy the actual or potential conflict of interest.

A reason for not accepting the submission is that it does not resolve the conflict of interest. The *Contractor* amends the proposal in response to any comments from the *Project Manager* and resubmits it to the *Project Manager* for acceptance. The *Contractor* complies with the proposal once it has been accepted.

WI 215.6 A failure to comply with this section is treated as a substantial failure by the *Contractor* to comply with his obligations.

WI 220 Security and identification of people

Basic Security Checks

If requested by the *Project Manager* the *Contractor* carries out basic security checks on its employees and subcontractors before they are involved in providing the Works. The checks are carried out in accordance with the *Employer*'s procedures.

WI 240 Traffic management

During the following periods traffic management measures could cause traffic flows to be impeded or restricted.

- Bank Holidays
- Easter
- Christmas

During these periods where is it safe and efficient to do so the traffic management should be removed, unless agreed as part of the scope of works and schedule of delivery or otherwise agreed with the *Project Manager*.

WI 250 Consideration of Others

The *Contractor*

- registers the Site under the Considerate Constructor Scheme https://www.ccscheme.org.uk/
- complies with the Considerate Constructor Scheme's Code of Considerate Practice in Providing the Works
- Will foster, develop and share best practise in a Considerate Constructor environment

WI 255 Equality and Diversity

The *Contractor* assists the *Employer* in the achievement of its equality and diversity

requirements as set out in the Equality and Diversity Policies. (Link Below)

https://www.gov.uk/government/organisations/highways-england/about/equality-and-diversity

Inclusion Action Plan

The *Contractor* prepares an Inclusion Action Plan in accordance with Annex F and submits it to the *Project Manager* for acceptance within four weeks of the *starting date*.

Skills and Apprenticeships

WI 255.1 Overview

WI 255.1.1 In this paragraph,

- Contract Year is (as the case may be) the period commencing on the *access date* or each anniversary of the *access date* and ending 12 months later and Total Workforce is the total number for the relevant Contract Year (calculated on a fulltime equivalent basis) of
    - the *Contractor*'s direct and indirect employees,
    - subcontractors' employees and
    - agency staff

  who are engaged in providing the Works for more than 4 days in any month of the Contract Year.

WI 255.1.2 The *Contractor* delivers a number of new apprenticeships commencing in each Contract Year through this contract equating to the greater of

- 1 apprenticeship for every £5M by which the Price for Work Done to Date is forecast to or actually changes (whichever is the greater) or
- 2.5% of the Total Workforce forecast to be or actually engaged on this contract (whichever is greater)

during the relevant Contract Year, unless agreed otherwise with the *Project Manager*.

WI255.1.3 The *Contractor* ensures that

• the apprenticeships meet the approved apprenticeship standards, see https://www.gov.uk/government/collections/apprenticeship-standards (see https://www.gov.uk/government/collections/apprenticeship-standards or any later revision; and

• any alternative graduate scheme has been approved as apprenticeships by the Institute of Apprenticeships.

WI255.1.4 The *Contractor* may agree with the *Project Manager* that any reporting requirement under this paragraph WI280 may be undertaken in one report for all contracts between the *Employer* and the *Contractor*.

WI 255.2 Obligations

WI255.2.1 The *Contractor*

- from the Contract Date until Completion identifies
    - the skills needed to Provide the Works and
    - the scope for meeting those skills needed by the development of apprentices.

- retains any apprentices for the full period of their apprenticeship unless agreed otherwise with the *Project Manager* and;

- takes reasonable steps to retain those apprentices on the *works* after completion of their apprenticeship unless agreed otherwise with the *Project Manager*.

WI 255.2.2 The *Contractor* within 30 days of, and on each anniversary of, the Contract Date submits an annual report and proposal for acceptance by the *Project Manager including the following: -*

- recording the skills identified under paragraph WI255.2.1 and how any shortfall in staff skills within the *Contractor or* any subcontractor (at any stage of remoteness from the *Employer*) will be met,
- recording the skills to be developed by apprentices and how that development will be achieved,
- identifying the retention rate for and training delivered to, existing apprentices and
- identifying the number and type of new apprenticeships to be commenced in the first or next Contract Year having regard to Transport Infrastructure Skills Strategy: building sustainable skills [https://www.gov.uk/transport-infrastructure-strategy-building-sustainable-skills.pdf] and the *Employer*'s guidance on the types of apprenticeships for projects together with the planned start and completion dates of any proposed apprenticeships.

Reasons for not accepting the report are that it does not demonstrate how the *Contractor*

- complies with this contract,
- complies with any guidance issued by the *Employer*,
- supports the aims of the Transport infrastructure skills strategy: building sustainable skills or

- will successfully address any shortfall in staff skills within the *Contractor* or any subcontractor (at any stage of remoteness from the Employer).

WI255.2.3 The *Contractor* amends the annual proposal in response to any comments from the *Project Manager* and resubmits it for acceptance by the *Project Manager*. The *Contractor* complies with the annual proposal once it has been accepted.

WI255.2.4 The *Contractor* ensures that the *Project Manager* can identify all apprentices individually appointed under the requirements of this contract and provides a rolling three-month monitoring report to the *Project Manager* within five (5) working days of the start of each calendar month detailing performance against the annual proposal in respect of each apprentice appointed or proposed to be appointed under this contract but who has not completed the apprenticeship, including

- number of apprenticeships to be started that month,
- actual and planned start dates for existing and proposed apprenticeships,
- postcode of workplace,
- gender,
- ethnicity,
- level of apprenticeship (1 – 8) in accordance with the table WI255 below,
- apprenticeship framework or standard,
- occupation of apprenticeship (reported against the standard occupation classification (SOC) codes [Insert Hyperlink],
- category of apprenticeship
- planned apprenticeship finish date,
- whether the apprentice is still engaged on Providing the Works and
- national insurance number.

WI255.2.5 The *Contractor* provides a rolling three-month monitoring report to the *Project Manager* within five (5) Working Days of the start of each calendar month detailing performance in respect of the following for each apprentice appointed under this contract who has completed the apprenticeship including

- postcode of workplace,
- gender,
- ethnicity,
- Level of apprenticeship (1 – 8) in accordance with table WI255,
- category of apprenticeship,
- apprenticeship start date,
- apprenticeship completion date,

- whether the apprentice is still engaged in Providing the Works and
- national insurance number,
- the total number of apprentices that have been appointed in compliance with this contract and the total number of apprentices that are engaged in Providing the Works,
- the total number of apprentices that have been appointed in compliance with this contract but are no longer engaged in Providing the Works and
- the total number of apprentices that have been appointed in compliance with this contract but are no longer employed by the *Contractor* or a subcontractor (at any stage of remoteness from the *Employer*).

WI255.2.6 The *Contractor* completes and submits to the *Project Manager* within five (5) Working Days of the start of each calendar month the BIS apprenticeship data collection form.

WI255.2.7 The *Contractor*
Makes available to staff of the *Contractor* and any subcontractor (at any stage of remoteness from the *Employer*), information about the Government's apprenticeship programme and wider skills opportunities and uses reasonable endeavours to provide work experience placements for 14 to 16 year olds, work experience placements for other ages, student sandwich/gap year placements and graduate placements in relation to this contract.

WI255.3 National Skills Academy for Construction (NSAfC)

WI255.3.1 The *Contractor* submits a proposal, including
- an application to be considered under the *Employer*'s accredited NSAfC scheme and
- an employment and skills plan including methodology and details of how and what will be delivered and any associated measurement

The Contractor submits to the *Project Manager* within 4 weeks of the Contract Date detailing the *Contractor*'s proposals to achieve accredited NSAfC Project status under the *Employer*'s accredited NSAfC scheme within [6] months of the Contract Date (unless agreed otherwise with the *Project Manager*).

WI255.3.2 The *Contractor* in preparing his proposal considers
- any guidance issued by the *Employer* and
- guidance issued by the CITB.

If any conflict exists between the CITB guidance and the *Employer*'s guidance, the *Contractor* uses the *Employer*'s guidance in the development of his proposal unless agreed otherwise with the *Project Manager*.

Reasons for not accepting the report are that it does not demonstrate how the *Contractor*
- complies with this contract,
- complies with any guidance issued by the *Employer* or CITB,
- will successfully achieve the standard required for accredited NSAfC Project status within [6] months of the Contract Date or

- is not compatible with obligations on the Employer's under its accredited NSAfC scheme.

WI255.3.3 The *Contractor* amends the proposal in response to any comments from the *Project Manager* and resubmits it for acceptance by the *Project Manager*. The *Contractor* complies with the proposal once it has been accepted.

Description of Apprenticeship Levels- Table WI255			
Apprenticeship type	National qualification level	National qualification equivalent	Higher education equivalent
	Entry	Entry level certificate	
	1	GCSE (grade D to G)	
Intermediate	2	GCSE (A* to C)	
Advanced	3	AS and A level NVQ level 3	
Higher	4	Certificate of Higher Education NVQ level 4	Certificate of Higher Education Higher National certificate
	5	Higher National Diploma NVQ Level 4	Higher National Diploma Foundation degree
	6	NVQ level 4	Bachelor's Degree
	7	Postgraduate Diploma NVQ Level 5	Master's degree
	8	NVQ level 5	PhD

WI 260 Project Control Framework

The *Employer* operates a Project Control Framework (PCF) as part of its project management process. The PCF comprises a number of products relating to the life cycle of a project. These PCF products are produced, reviewed, updated, or refined at various stages of the project life cycle. The *Contractor* will be involved in production, review, and revision of the PCF products as the project life cycle evolves.

The end reviewers, including Operations Directorate (OD) and Customer Operations (CO) will be able to contribute to the *Contractor*'s Performance Indicators (PIs) on the basis of the quality of PCF products and PCF product satisfaction.

Highways England Project Governance

The *Contractor* provides supporting information and resources, as required, to assist the *Employer* with the relevant PCF stage gate assessment reviews, OGC gateway reviews and

Investment Authorisation processes for the scheme and shall allow such time as is necessary for these processes within his programme.

WI 285 Continual Improvement / LEAN

The *Contractor* operates processes for delivering innovation and continual improvement following the Highways England Lean guidance as measured on the Project by Simplified Lean Capability Assessment (simplified HELMA) and the procedures set out in Annex E.

WI 290 Category Management

The requirements for category management are prescribed in the *conditions of contract.*

The *Contractor* follows the procurement procedures prescribed in Annex G.

The *Contractor* records and reports CPF (Collaborative Performance Framework) scores for Category Suppliers.

Technology Category Suppliers

The *Contractor* follows the procurement procedures prescribed in Annex H.

Following the completion of construction and installation of Plant installed by the Category Suppliers, the *Contractor* demonstrates that the scheme is operating in accordance with the Works Information.

WI 295 Scheme Recovery Services

Unless otherwise specified in the Works Information or instructed by the *Project Manager,* the *Contractor* uses the *Employer's* outcome based specification for scheme recovery services. This specification replaces Appendix 1/20 of the Manual of Contract Documents for Highway Works (MCHW).

The *Contractor* follows the procurement procedures prescribed in Annex I for the appointment of any Subcontractor to undertake scheme recovery services.

WI 298 Behavioural Attributes

In Providing the Works the *Contractor* performs in accordance with the *Employer's* behavioural attributes, which are based on industry best practice and aligned with BS11000 - Collaborative Business Relationships, an established industry standard for collaboration.

The behavioural attributes are as follows;

- Collaboration
- Accountability
- Performance Improvement
- People and Relationships

- Stakeholders and Engagement

The *Contractor* takes all reasonable steps to ensure that these behavioural attributes are embedded and implemented by both direct employees and those in the supply chain on this Package Contract.

WI 299 Strategic Alignment Review Tool (StART)

In Providing the Works the *Contractor* performs in accordance with the *Employer*'s StART principles, which are:

- Leadership: delivering exemplary contracts, and fulfil our strategic agenda. Engage with the *Employer* for the long term and at all levels, and contribute to and influence the *Employer*'s strategic direction.
- Collaboration: work collaboratively across boundaries, build integrated relationships, are responsive and informed, and actively promote sharing and openness to build trust, manage risk and drive value.
- Supply Chain: develop the understanding, capabilities and working practices of their internal and external supply chains to deliver effective results consistent with the *Employer*'s strategic agenda.
- Delivering Value: mobilise all talents and resources to deliver smarter and more efficient ways of working, for example through innovations and lean process improvements.
- Diversity and Inclusion: draw on the talents of the widest labour market and to ensure employment policy and practice assures equality of opportunity and treatment.
- Sustainability: deliver better products and services which have reduced environmental impacts, have cleaner, more efficient production processes with negligible waste, take due account of people's different needs and of the impact on the health and well-being of local communities.

The *Contractor* takes all reasonable steps to ensure that these principles are embedded and implemented by both direct employees and those in the supply chain on this Package Contract.

The *Contractor* implements, operates, and delivers the StART improvement plan.

EMPLOYER'S WORKS INFORMATION SECTION

WI 300

Contractor's Design

WI 300 Contractor's design

WI 305 Design Responsibility

The *Contractor* undertakes the design of the whole of the *works*. The *Contractor* produces, updates, and refines the products required under the Project Control Framework (PCF) as described in this Works Information.

The *Contractor* develops the design from the SGAR3 design proposals developed by the *designer* and contained in Annex P. The *Contractor* satisfies himself as to the accuracy, completeness, constructability, and compliance with this contract of the SGAR3 (preliminary design) as developed to SGAR5 .

Unless the *Project Manager* agrees otherwise, the design complies with

- previous agreements entered into with interested parties,
- the Operational Concept agreed by the Programme Board, as modified up to SGAR3.
- any other permission, authorisation, agreements or similar made regarding the project.

Works to highways which are or will become the responsibility of a Local Authority are to comply with the requirements and standards of the responsible Local Highway Authority, or, where there are no such standards, the *Employer's* Work Specification. Initial contact with the Local Authority is made through the *Project Manager*.

During PCF Stage 5 the *Contractor* maintains a procedure within his Quality Plan which records the development of the design of the works. The record includes:

- details of changes to the design,
- the impact of works added to the Works Information by the *Project Manager*
- elements of the design where the *Contractor* and the *Project Manager* have agreed to deviate from agreements previously made,
- details of permissions, authorisation, agreements and similar made in connection with the project

The record provides a full audit trail of the development of the design of the *works* and includes any impact on the programme, the Risk Register, and the forecast total of the Prices. The *Contractor* reports these developments at the monthly progress meetings.

The *Contractor* shall satisfy themselves of the suitability of survey data provided within the Site Information prior to relying upon it. Any additional survey information required shall be the responsibility of the *Contractor*.

The Contractor will make available relevant subject matter experts to attend Peer to Peer meetings held for half a day every month per discipline. These sessions are to share best practise, provide group discussion and decisions on the key risks and opportunities appearing within the discipline and to provide items for decision and discussion to the Design & Engineering Services team within the Smart Motorways Programme. The meetings comprise of the following groups:

- Safety

- Highways
- Geotechnical
- Structures
- Technology
- Environmental
- BIM

WI 310 Employer's Design Criteria

The *Employer*'s design criteria for the Smart Motorways Programme are articulated through IAN161 and the 'Single Option Development Phase Process Map', which align with PCF and are based around five Design Fixes during the Development Phase.

The *Contractor* collaborates with the *Project Manager* to:

- develop the detailed design following the identification of buildability / design issues, unforeseen conditions or due to other reasons as instructed by the *Employer*;
- resolve Technical Queries or Requests for Information;
- provide Site Data loads in accordance with the works schedule;
- provide details to allow updates to the constructed record at the completion of the works;
- undertake design review of, and incorporates into the detailed design, any 'Contractor Design' elements of the permanent works, where the *Contractor* will retain design liability for such elements;
- promotes and assists in identifying and evaluating design and technical aspects of value engineering solutions to help deliver the scheme more sustainably and efficiently.

The *Contractor* considers maintenance and operation at every step of the design process.

WI 320 Design submission procedures

The *Contractor* provides a design and check certificate when he submits his design to the *Project Manager* for acceptance. The design certificate is signed by an appropriately qualified and experienced engineer other than the engineer who prepared the design. If the certifying engineer is not an employee of the *Contractor* he is a Subcontractor.

The *Contractor* complies with the procedures and processes specified by the *Employer.*

The *Contractor* submits the particulars of each element of his design to the *Project Manager* at least 21 days before he proposes to carry out the work relating to the design. The submission is made in accordance with core Clause 21 of the contract and the Works Information.

Separate submissions are made for each element of the design described in the PCF product 'Pre-Construction Design', unless the *Contractor* proposes and the *Project Manager* accepts an alternative breakdown of the design.

The *Contractor* provides a design and check certificate in the format included in Annex D with each submission.

The *Project Manager* returns the certificate within 21 days. Prior to returning the certificate the *Project Manager* may seek clarifications from the *Contractor*. Clarifications may take the form of revised designs. The certificate will be returned endorsed either:

- Accepted
- Accepted with comments, or
- Not accepted.

Where the submission is accepted the *Contractor* may proceed.

Where the submission is accepted with comments the *Contractor* may proceed once he has agreed methods of resolving the comments with the *Project Manager*

Where the submission is not accepted the *Project Manager* considers that there are areas where the submission fails to meet the requirements of the contract and the Works Information. The *Project Manager* describes the areas of concern and gives his reasons in accordance with the contract. The Contractor is not to proceed until such time as the concerns raised by the Project Manager have been fully addressed and the design has been accepted.

WI 325 Building Information Modelling (BIM)

The *Contractor* Provides the Services in compliance with the Government's Strategy for Building Information Modelling as set out in the Cabinet Office Government Construction Strategy paper dated May 2011. In summary *"….Government will require fully collaborative 3D BIM (with all project and asset information, documentation and data being electronic) as a minimum by 2016. A staged plan will be published with mandated milestones showing measurable progress at the end of each year.*"

The Employers Information Requirements (EIR) are included in Annex N. These requirements will be implemented by the *Contractor* through the Project BIM Execution Plan (BEP).

Creation of Delivery Plans

WI325.1 The *Employer* arranges for a clause in substantially the same terms as clause Z66 to be incorporated into all other Project Agreements.

WI325.2 The functions of the *Information Manager* are set out in Annex 12 to the Framework Information.

WI325.3 Prior to the commencement of each Stage, the *Employer* creates and issues to the *Contractor* a delivery plan (the "Information Delivery Plan") for the relevant Stage based on the Employer's Information Requirements and the Model Production and Delivery Table.

WI325.4 Within two weeks of the Information Delivery Plan being issued, the *Contractor* updates the BIM Execution Plan to comply with the Information Delivery Plan and submits it to the *Project Manager* for acceptance.

WI325.5 The *Project Manager* reviews the updated BIM Execution Plan and verifies that it complies with the Information Delivery Plan. The *Project Manager* updates the Model Production and Delivery Table as needed.

Production of Specified Models by the Contractor

WI325.6 The *Contractor* develops the following documents for acceptance by the *Project Manager*:

- Supply Chain BIM Capability Assessment,
- GIS Strategy and Implementation Plan, and
- Design Management Plan (BS 7000-4 compliant), along with a simple BIM strategy document.

within 4 weeks of award.

WI325.7 The *Contractor*

- produces the Specified Models (excluding any material forming part of the Specified Models which is provided to the *Contractor* by or on behalf of the *Employer*) at each Stage to the relevant Level of Definition specified in the Model Production and Delivery Table and in accordance with the updated BIM Execution Plan,
- validates the Specified Models against the requirements set-out in the Employer's Information Requirements and the Information Delivery Plan,
- delivers the Specified Models to the *Project Manager* and other Project Team Members,
- uses the Models in accordance with any procedures in the *Employer*'s Information Requirements,
- co-operates with the *Information Manager* and other Project Team Members and
- otherwise complies with the *Employer*'s Information Requirements.

The *Contractor* develops its design(s) as a complete Project Information Model. The *Contractor* hosts the Project Information Model on the Common Data Environment (CDE).

The *Contractor* uses the verified Composite Graphical Model for the purposes of, but not limited to:

- Delivery of Asset Information Model (refer to the EIR & ADMM)
- Site utilisation planning
- 3D co-ordination
- Design reviews
- Phase planning and programme management (4D)

- Cost Interrogation and Earned Value Analysis (5D)
- Safety Improvement and Communications
- Risk Management
- Sustainability

Upon Completion, the *Contractor* submits a complete “as constructed” Composite Graphical Model, and “as built” drawing definitions and reports for acceptance by the *Project Manager*.

The *Contractor* records and reports all benefits of BIM to the *Project Manager*, through the approved *Employer* efficiency process along with producing relevant case-studies as specified by the *Employer*.

WI 335 Copyright/licence

There are no additional requirements in excess of those contained in the Contract.

EMPLOYER'S WORKS INFORMATION SECTION

WI 400

Completion

WI 400 Completion

WI 405 Completion definition

The work to be done by the Completion Date for the whole of the *works* is all the work included in this contract.

Traffic management measures which could cause traffic flows to be impeded or restricted are to be removed before Completion of the whole of the *works*.

WI 410 Sectional Completion definition

The work to be done by the Completion Date for a *section* of the *works* is all the work included in the *section*.

Table 410.1 – Definition of the Sections of the *Works*

Section	Definition
Section 1	Open for traffic date
Section 2	All works in the Scheme except those included in section 3
Section 3	Aftercare and management of environmental landscaping and planting

Landscape and Ecology

The Contractor undertakes maintenance and aftercare of landscape and ecological Works after Completion of Section 1 landscape and ecological Works has been certified as follows:

- Landscaping (Section 2 Works) 24 months
- Ecological mitigation (Section 3 Works) 24 months

The *Contractor* determines the maintenance and aftercare programme to enable him to achieve the landscape performance requirements for the landscape elements stated in DMRB Volume 10, Section 0, Part 8 (HA 93/01), Chapter 4 and as stated in MCHW Series 3000 which is compiled by the *Contractor* as part of his design. The aftercare programme is to include for periodic joint inspections with the *Employer* or his representative or agent for approval by the *Project Manager*.

The *Contractor* inspects, corrects, and replaces defective landscape and ecological *Works*, including replacement of defective plants, throughout the specified maintenance and aftercare period on a periodic basis agreed with the *Project Manager*

WI 435 Pre-Completion arrangements

The *Contractor* executes a Detailed Local Operating Agreement (DLOA) which clearly defines the roles and responsibilities of the Parties and Others.

The *Contractor* prepares a detailed Commissioning and Handover Plan which addresses the *Employer*'s requirements for take over and Completion within 3 months of Notice to Proceed to Construction. This Plan is issued to the *Project Manager* and to Others as instructed by the *Project Manager*, for acceptance within 3 months.

This Plan will include as a minimum the following PCF Products:

- Technology Commissioning Plan
- Handover Schedule
- H&S File agreed contents
- ASC Civils Handover Certificates, including agreed Documentation
- RTMC Technology Handover Certificates, including agreed Documentation
- RCC Technology Handover Certificates, including agreed Documentation

When the *Contractor* considers that a part of the *works* is complete and ready to be taken over by the *Employer*, he signs the statement on the form attached at Annex C, obtains the signature of the Authority responsible for the future operation of that part of the *works*, and submits it to the *Project Manager* for certification of take over.

WI 445 Documents

The *Contractor* provides the documents for the *Employer* to take over the *works* at the time required by and in accordance with Highways England current procedures.

The *Contractor* shall comply with the requirements of IAN 182 to enable successful handover into operation and maintenance. This shall include a complete "as constructed" Composite Graphical Model, and "as built" drawing definitions and reports.

The *Contractor* delivers to the *Employer* on Completion the final 'deliverable' version of any data in the Asset Data Management Manual. Asset inventory and as-built data is required to be uploaded to the *Employer*'s relevant Integrated Asset Management system (or other system specified by the *Employer*).

The *Contractor* manages developments in technology site data for schemes through regular coordinated and collaborative forums, such as Site Data Advisory Groups (SDAGs).

The *Contractor* returns the Works Information or any other material relating to the *works* to the *Project Manager* at the *defects date.*

WI 450 Handover between Contractors

If required, the *Contractor* arranges for the receipt through the *Project Manager* of all information relating to the scheme from the *Contractor* previously appointed for the delivery or procurement of the *works* or otherwise.

If required, the *Contractor* arranges for the transfer through the *Project Manager* of all information relating to the scheme to the *Contractor* subsequently appointed for the delivery or procurement of the *works* or otherwise.

EMPLOYER'S WORKS INFORMATION SECTION

WI 500

Programme

WI 500 The Programme

(1) The programme is more than just a bar chart it's a collection of documents (including narrative, histograms, resources and costs) incorporated into the programme for completing the works.

WI 505 Programme Requirements

(1) In addition to the requirements of the *conditions of contract*, the *Contractor* shall resource load, with man hours, cost and quantities, any programme for acceptance, within the period stated in the Contract Data. The resource loading of the programme for acceptance will facilitate the use of earned value techniques for assessment of progress, cost and performance.

(2) The first Accepted Programme will be used as the Performance Measurement Schedule, for assessing progress with respect to Earned Value Analysis (EVA) techniques, and for production of the *Contractor's* programme graphs (refer to WI510, and WI510.6).

(3) The *Contractor's* revised programme for acceptance will be measured against the Performance Measurement Schedule. The *Contractor* shall not amend the Performance Measurement Schedule, without the prior approval of the *Project Manager.*

(4) All programme activities shall be logically linked in order to maintain the integrity of the critical path, and float calculations. The programme start activity does not require a predecessor, and the final activity, does not require a successor.

(5) As requested by the *Project Manager*, the *Contractor* shall carry out quantified schedule risk analysis (QSRA) and / or quantified cost & schedule risk analysis (QCSRA) on the Accepted Programme, to assess the confidence levels of achieving key milestones. Dependent on the stage of the project, these risk modelling exercises may be on the entire programme, or elements of the programme, relating to key phases of the Project. In order to carry out the QSRA / QCSRA, the programme shall meet a number of key requirements, for example, removal of all constraints, unless they can be justified. These requirements will be confirmed to the *Contractor* once the first programme for acceptance has been submitted.

(6) The *Contractor* shall also provide a report that outlines the assumptions made in carrying out the QSRA & / or QCSRA, the modelling parameters, along with details of any duration uncertainties that have been applied, and the risk register with the probabilities and likely delays clearly linked to activities.

(7) Within the *Contractor's* Programme for acceptance, the *Contractor* is to aggregate the time risk allowance that the *Contractor* has identified, clearly showing time risk allowance in front of Key Dates relating to key sections of the *works* as identified in Contract Data Part 2.

(8) The *Contractor* shall include in his revised programme actual resources used, physical percent complete and man hours, the Price for Work Done to Date

(PWDD).

(9) The *Contractor* submits within four weeks of the *starting date*, to the *Project Manager* for acceptance, detailed procedures for the establishment and revision of programmes including the responsibilities for and methods to be used to measure the actual progress achieved, and the plan for maintenance and further development of all the resource loading, in accordance with the requirements of the Works Information.

(10) The *Contractor* submits a programme for acceptance using Primavera Enterprise Version 16.1.3 or above.

(11) Primavera settings and template programme are provided by the *Project Manager*. Primavera settings will enable consistent presentation of the programme in relation to the *Employer's WBS and* reporting periods. The programme for acceptance incorporates all activity coding as specified in the SMP standard template Activity Code List.

(12) Deltek Acumen Fuse

i. The Programme submitted shall be of a suitable standard to provide a Deltek Acumen Fuse Quality score % depending on the stage of the Design Fix (DF) and / or construction as shown in the table below.

Stage	**DF 0-4**	**DF4-5**	**Construction**
Score	>65%	>75%	>80%

ii. These quality Acumen Fuse targets will be reviewed and revised as required.

iii. The Fuse Schedule Index is based upon nine core metrics that all pertain to the overarching quality of a plan. The standard weightings and thresholds for each of the nine metrics will be used initially. These nine metrics will be periodically reviewed and revised as necessary.

(13) All programmes submitted for acceptance shall include the information listed in clauses 31, and 32 of the conditions of contract together with the following information:

a. the dates when the Contractor plans to submit any particulars of the design required by the Works Information;

b. the dates when the *Contractor* plans to submit any particulars of the design of any items of Equipment required by the Works Information;

c. the dates from the *Contractor*'s procurement schedule when any key items of Plant and Materials and Equipment are required at Site;

d. the dates for any *establishment of f*abrication facilities and dates for

fabrication of materials;

e. all major milestones to Completion of the works; the agreed dates when documents are submitted for acceptance by the *Project Manager*, in r*espec*t of design or third party consents;

f. details *of all consents, permits an*d lic*enses* development, *submission* and approvals, inc*ludin*g:

   i. the dates when the *Contractor's* consent s*ubmis*sions are made, and

   ii. the dates when all necessary approvals and consents from the *Employer* or Others are required, allowing sufficient time for each stage of the development, submission, and approval process, in accordance with the requirements of the Works Information, and also allowances for resubmission;

g. the agreed dates when, in order to provide the Works in accordance with the programme, the *Contractor* requires information to be provided by the *Employer* or Others;

h. the dates of submission of any quality plans;

i. the dates of submission of any safety plans;

j. the dates of submission for acceptance by the *Project Manager* of the *Contractor's* safe systems of work, together with the *Project Manager's* approval periods (in accordance with the requirements of the Works Information);

k. the dates of submission of any logistics plan;

l. the dates of commencement of all permanent and temporary construction and installation activities;

m. the dates of factory and site inspection and tests

n. the dates of submission of any design documents; and any other deliverables required by this Contract

o. details of any utility supplies development, submission and approvals, allowing sufficient time for each stage of the process, and also allowances for resubmission;

p. details of any 3rd party interfaces and/or submissions development, submission and approvals allowing sufficient time for each stage of the process and also allowances for resubmission

(14) A programme for acceptance is to be developed with a work breakdown structure (WBS) provided by the *Project Manager*. The structure of the WBS shall not be altered without prior agreement of the *Project Manager*.

(15) The Contractor supplies a reference document which defines the scope of work represented by each element within the provided WBS (to the lowest level

within the WBS).

(16) The Activity ID numbering system, Activity Codes and Project Calendars, including a summary of statutory holidays applied to calendars for each year of this Contract is set within the Highways England P6 environment.

(17) The Primavera calendars are set in days, and no activity exceeds a 14 calendar day duration unless agreed with the *Project Manager*.

(18) In preparing the programme for acceptance the Contractor complies with the following:

a. the Prices are loaded by the Contractor onto a sufficient quantity of activities as to allow a detailed planned value baseline curve to be created by the Contractor for the purpose of earned value analysis;

b. a clearly identified critical path from the starting date to the completion date;

c. the schedule is to identify sub critical paths of 10 days float, or less, to the critical path;

d. contractually agreed key dates and the completion date for each section of the works are represented;

e. the requirements of the conditions of contract are complied with interfaces with other works controlled by the Employer and that they are represented as one milestone at the end of a string of activities to be delivered by others to allow co- ordination and integration with the Contractor's works.

f. actual progress achieved on each operation activity and affect upon remaining work;

g. effects of implemented compensation events;

h. how Contractor plans to mitigate delays, correct notified defects & any other changes that Contractor proposes to make.

(19) All programme submissions are clearly titled, numbered and dated, with the programme data date clearly visible within the Gantt chart. Layout is as per supplied WBS which aligns with the Employers reporting requirements.

(20) If the number of any activities of a repetitive or multiple nature is such that there is a risk of causing confusion by including them in the programme, the Contractor may present details of such activities in a tabular format subject to having obtained the prior consent of the *Project Manager*. The format provides cross-references to the programme by way of activity identification numbers, to enable reconciliation with the remainder of the programme. When the relevant programme has been accepted, such details become part of the Accepted Programme.

(21) The programme for acceptance allows sufficient time for the process of review, revision and further review of all drawings, documents and other submissions to the *Project Manager* so that such processes may be completed without delaying the placing of orders and the execution of the works.

(22) The level of resource is substantiated by the production rates and manpower details described in the programme narrative and by the sequencing and

deployment plan described in the safe system of work.

(23) The *Contractor* submits a programme for acceptance in the following format:

a. the full programme in logical linked gantt chart form clearly showing the critical path(s), all activity early start dates, late start dates and total float, in hard copy and .pdf electronic file format; and

b. the full programme Primavera .xer file, and .plf (primavera layout) files by electronic data transfer. The export format of the .xer file is to be advised by the *Project Manager*, to ensure compatibility with the current version of the Employer's Primavera Enterprise system. The change log is submitted with the data files and any changes to calendars particularly noted (refer to WI525).

(24) The *Contractor*'s summary schedule shall be submitted in hard copy and .pdf electronic file format.

(25) The activity ID shall form a unique identification, for activities within the *Contractor*'s programme for acceptance.

(26) All programmes submitted by the *Contractor* for acceptance by the *Project Manager* shall be accompanied by a programme narrative and shall contain as a minimum the following requirements:

a. format of activity descriptions including any abbreviations used;

b. staffing plan indicating total manpower required per reporting period, inclusive of sub-contractors;

c. list of the major construction Equipment and Plant items including types, number of units, unit capacities, the proposed time each piece will be deployed and the activities on which it will be deployed;

d. description of the production rates, man power build-ups etc used to determine the durations for key activities;

e. the activity calendars used, particularly non-standard work patterns;

f. holidays, weather windows and other non-work periods;

g. description of the critical path(s);

h. listing of key interfaces with the *Project Manager* or others and the dates those interfaces are planned to occur; and listing of information required by the *Contractor* to meet his stated programme together with the date that information is required.

i. any variance in available aggregated time risk allowance should be identified within the programme narrative, together with reasons;

j. details of any significant changes including revisions to critical path since the previous Accepted Programme;

k. impact on progress;

l. details of changes to key dates, milestones, and associated float;

m. list of implemented compensation events included and their impact;

n. any delay mitigation measures incorporated;

o. any other changes the *Contractor* has made along with a description of

their impact on the Accepted Programme; and

p. changes incorporated based on comments raised by the *Project Manager* regarding earlier Accepted Programmes.

WI 510 Timing

(1) In addition to the requirements of the conditions of contract, the *Contractor* shall maintain a hierarchy of programmes that support each other whilst keeping detail at the appropriate level within the hierarchy. The programme hierarchy is identified below, including performance graphs, derived from the programme as described within section WI510.6 below:

Programme Level	Description	Comments
Level 1	The *Contractors* Summary Schedule.	A 1-2 page A3 summary of the Accepted Programme, showing key elements of the *works*, and *works* phases to Completion of the *works*. The specific format, and software used for creation of this schedule are to be agreed by the *Project Manager* (refer to WI510.1).
Level 2	The *Contractor's* Summary Design, Procurement, Fabrication, Construction and Commissioning Schedules.	Fully logic-linked Critical Path Method (CPM) network summary of the Level 3, Accepted Programme. The specific format and level of detail are to be agreed with the *Project Manager*. The schedule is developed and maintained within Primavera Enterprise 16.1.3 or later (refer to WI510.2).
Level 3	The *Contractor's* Accepted Programme	Cost and resource loaded logic linked CPM network, which the *Contractor* uses to plan the *works*, report progress, for earned value management (refer to section WI535), together with all requirements within Clauses 31.2, and 32.1 of the *conditions of contract*. The schedule is developed and maintained in Primavera enterprise 16.1.3 or later
Level 3	The *Contractor's* Design Schedule	Fully logic linked CPM network, containing all design deliverables, and all design activities. The *Contractor's* design schedule is a sub-network of the *Contractor's* Accepted Programme (WI510.4).
Level 4	The *Contractor's* Procurement Schedule	The Contractor's procurement schedule as described in WI 510.5 and WI 855.1 identifies all of the following: i. Sub contract package listing; Dates for procurement of sub contract works including tender period, scope and

		sub contract terms; ii. Start on Site dates for identified sub contract packages; and iii. Duration of sub contract works.
Level 4	The *Contractor*'s Weekly Work Plan	A four-weekly rolling schedule, (one week look back, and three weeks look ahead) covering day to day activities as described in WI515. The specific format, and software used for creation of this schedule are to be agreed by the *Project Manager*.
Level 4	*Contractor*'s Programme Performance Graphs	A suite of graphs derived from the *Contractor*'s performance measurement schedule, and latest Accepted Programme (or most recently submitted programme for review by the *Project Manager*). (Refer to section WI510.6)
Level 4	*Contractor*'s Commissioning & Start up Programme	Fully logic-linked CPM network for use in co-ordinating all activities involved in commissioning. The schedule is developed and maintained within Primavera 16.1.3 or later (refer to WI510.7).
Level 4 / Level 5	*Contractor*'s Possession Programmes	Detailed programmes produced by the *Contractor* for all works undertaken during possessions, closures or blockades of the operational railway. These programmes shall have a maximum time unit of 1.0 hour unless agreed otherwise with the *Project Manager*. The specific format, and software used for creation of this schedule are to be agreed by the *Project Manager* (refer to WI510.8).

(2) In addition to the above summary schedules, the *Contractor* shall produce a summary schedule in time-chainage format. An updated summary schedule shall be included within each four weekly report by the *Contractor*.

(3) All programmes created by the *Contractor,* in relation to any of the works, are to be made available to the *Project Manager* if requested, in the software format in which they were created.

WI 510.1 Contractor's Summary Schedule

(1) The *Contractor* shall submit a summary schedule, in a format accepted by the *Project Manager*, with each programme submitted for acceptance. The summary schedule is used as the basis for developing and reporting contract schedules to management and key stakeholders from initiation through all project completion phases. The summary schedule is developed in time-scaled

format with typically not more than 200 activities and contained on 1-2 sheets of A3 size. The summary schedule highlights the critical path, major milestone events and events important to the overall management of the Project.

(2) Summary schedule activities are related to Accepted Programme activities with the status of each summary schedule activity “rolled up” from the Accepted Programme.

(3) The summary schedule shall be produced within software to be agreed by the *Project Manager* (Microsoft Excel, or Microsoft Visio). The *Contractor*’s summary schedule will not simply be summarised primavera output.

WI510.2 Contractor’s Summary Design, Procurement, Fabrication, Construction & Commissioning Schedule

(1) The *Contractor* shall submit a summary design, procurement, fabrication, construction & commissioning logic linked CPM network which is a summary of the level 3 Accepted Programme with each revision of the programme for acceptance.

WI510.3 The Contractor’s Accepted Programme

(1) The Accepted Programme shall be used by the *Contractor* to direct his work by providing parameters for the more detailed Implementation programmes and tools such as the Procurement Schedule and Weekly Work Plan. It is also used to identify and resolve schedule problems, measure the impact of compensation events and delays, assist in earned value calculations and develop recovery plans. Programmes shall be developed by the *Contractor* using CPM / network analysis techniques to produce a coherent schedule that covers the entirety of the *Contractor*’s awarded scope.

(2) The information to be included in a programme for acceptance shall include, but not be limited to, the requirements listed within WI 505.

WI510.4 The Contractor’s Design Schedule

(1) The *Contractor* shows all design deliverables, and design activities, in a schedule to be developed in a logical format as a sub-network of the Accepted Programme. This sub- network is capable of review as a stand-alone programme but when integrated forms part of the whole programme submitted for acceptance. The design programme is developed with a number of control points, relating to specific design deliverables, to be agreed by the *Project Manager*.

WI 510.5 Contractor’s Procurement Schedule

(1) The *Contractor*’s Procurement Schedule identifies each purchase order and

subcontract to be placed by the *Contractor*. The Procurement Schedule is the most detailed procurement programme in the hierarchy and shall support the requirements of the Accepted Programme. Each item in the schedule is tracked from the issue of a requisition or design package through various control points concluding with delivery to site. Typical control points may include; produce bid documents; invitation to tender (ITT); bids received; contract award; subcontract design complete; start manufacture; factory test; first shipment; site delivery; and final shipment.

(2) The Procurement Schedule is typically produced in Microsoft Excel or Microsoft Access format as a standalone document separate from the primavera programme. However, every activity within the Procurement Schedule, is derived from, and can be related back to, an activity which exists within the *Contractor*s Accepted Programme (or most recently submitted Programme for review by the *Project Manager*).

(3) With the *Project Manager*'s acceptance, the *Contractor* may use its own procurement tracking system.

WI 510.6 Contractor's Programme Performance Graphs

(1) The *Contractor* shall prepare graphs to assist in demonstrating the viability of the *Contractor*'s programme in terms of cost, quantities, production rates and resources required to support the programme. The *Contractor* shall provide graphs derived from the *Contractor*'s Performance Measurement Schedule, and latest programme for acceptance (or most recently submitted programme for review by the *Project Manager*).

(2) The *Contractor* shall provide updated graphs as part of the submission of a programme for acceptance by the *Project Manager*. The graphs will show planned, actual, and forecast to go. The format and number of these graphs shall be agreed by the *Project Manager*. The minimum requirements will be:

a. bulk quantities (e.g. concrete poured, rebar: steel fixed, excavation: muck away).
b. resource usage graphs;
c. cost and cash flow graphs;
d. earned Value Management graphs (refer to WI535, Earned Value Management);
e. aggregated time risk allowance usage (refer to WI505).

WI 510.7 Design/ Delivery Partner's Commissioning and Start up Programme

(1) The *Contractor* shall produce a detailed commissioning and start up programme to illustrate in detail the sequence and operations required to complete the commissioning (inclusive of document preparation) and handover stage of the Contract. These programmes shall be submitted by the *Contractor*

in logic linked CPM format produced in Primavera. Initial versions of the commissioning & start up programme, if required by the *Project Manager*, shall be submitted to the *Project Manager* for review and acceptance at least 6 months prior to the first commissioning activity starting.

WI 510.8 Design/ Delivery Partner's Possession Programmes

(1) Detailed programmes shall be produced by the *Contractor* for all works undertaken during possessions, minor closures or major closures of the strategic roads network. These programmes shall have a maximum time unit of 1.0 hour unless agreed otherwise with the Project Manager. These programmes shall also be subjected to risk analysis by the *Contractor* to ensure that work is completed during the possession, minor closure or major closure, or that alternative action can be taken to ensure that infrastructure is handed back on time.

WI515 Weekly Work Plan

(1) For each element of work in hand, the *Contractor* issues a work plan(s), no later than 0900 on Monday of each week. The Weekly Work Plan comprises a four week rolling programme (one week look back, and three weeks look ahead) covering day to day activities. This Weekly Work Plan is in Gantt chart format and is to be resource loaded with critical labour resources, Equipment, Plant and Materials by discipline. The *Contractor* uses the Weekly Work Plan to plan and schedule his work on a weekly basis.

(2) Each activity within the Weekly Work Plan is derived from and can be related back to an activity which exists within the *Contractor*s Accepted Programme (or most recently submitted programme for review by the Project Manager).

(3) The headings include safety, progress, programme, design, quality, access, environment, commercial, and issues.

(4) The Weekly Work Plan indicates the timing of all proposed hold points in the inspection and test plans identified by the Project Manager, for inspection by the Project Manager or the Supervisor or by Others who have the right of inspection.

(5) There is a narrative report on each section/discipline of the works describing the progress over the week look back and planned for the three weeks look ahead and this shall include design activities.

(6) The *Contractor* identifies all works planned to be completed within the previous week, at the time of production of the last Weekly Work Plan, and what has actually been achieved.

(7) The *Contractor* clearly shows any change in aggregated time risk allowance, free float and terminal float (Refer to WI505).

(8) The *Contractor* provides details of all activities planned to be started within the

previous week, at the time of production of the last Weekly Work Plan, and whether they have actually achieved their start date. Any variance is to be identified.

(9) The *Contractor* provides reasons for not achieving any planned activity start dates. Reasons for not achieving planned activity start dates are categorised, in line with a list of categories to be agreed by the Project Manager and dependant upon the stage the Project is currently within.

(10) The number of activity start dates not achieved, falling within each category, are listed, and summarised as a percentage of the total number of planned activity starts for the previous week.

(11) The data collected is used by the *Contractor* to identify any constraints which are preventing him from working to schedule. The *Contractor* provides details of all actions that he intends to take to recover any lost time.

(12) The format of the Weekly Work Plan is to be agreed by the Project Manager, and the Weekly Work Plan is submitted in electronic format and hard copy.

(13) The Weekly Work Plan is discussed at a Work Plan meeting to be held at the time of issue of the Weekly Work Plan (refer to Appendix 05-01). The Project Manager is to be invited to attend the Weekly Work Plan meeting. The Project Manager requires the *Contractor*'s staff accountable for the delivery of the works to present their section and account for the performance and the Weekly Work Plan.

WI520 Methodology Statement

(1) The *Contractor* provides a narrative with each programme submitted for acceptance to explain how the programme has been put together, with reference to the safe system of work and includes an explanation of:

q. cycle times and work sequences;
r. the deployment of *Contractor*'s Equipment and labour;
s. the production rates used in determining durations;
t. the shifts assumed in determining durations;
u. the breakdown of labour requirements by trades;
v. intended working hours; and
w. the schedules of quantities used in developing the programme.

(2) The programme narrative is to be in sufficient detail to enable the durations, leads and lags in the programme to be reconciled and substantiated, and to enable the projected levels of labour (by trade) and staff and flows of goods, Materials, Plant and Equipment identified are to be substantiated.

WI 525 Revised Programme

(1) Revised programmes submitted for acceptance include the information listed in clause 32 of the conditions of contract together with the following information:

a. change log detailing all new activities;
b. changed durations;
c. changed calendar assignments;
d. changed dependencies; and
e. changed assumptions – either amended, removed or added

(2) The *Contractor* submits an updated programme in Primavera .xer, as well as .pdf format on the Monday of week 1 of the Employer reporting period with the data date in the programme set to the Sunday (beginning) of week 1.

(3) Physical progress is reported and recorded (updated) on programme activities by the *Contractor* during each Employer reporting period using physical percentage complete and activity remaining duration as the basis for 'progress status'.

(4) The *Contractor* implements earned value management within the Accepted Programme by applying the actual and remaining costs each period at an acceptable level of detail as agreed with the Project Manager as described in WI540.

WI 530 Inspection, Test and Sample Schedule

(1) The *Contractor* identifies on the programme for acceptance the nature and purpose of all dates or constraints in relation to inspections, tests and sampling that require to be notified and co-ordinated with the Employer.

WI 535 Earned Value Management

WI 535.1 General

(1) The *Contractor* shall carry out detailed performance measurement using Earned Value Analysis (EVA) techniques and produce a four weekly report (as described in WI 800) for review by the Project Manager.

(2) This will require the integrated reporting of:

a. programme;
b. cost;
c. quantities;
d. man hours; and
e. earned value.

(3) At each periodic update, in line with the project meeting and reporting cycle, the following items shall be progressed:

a. activities which have actually started, shall have the actual start date input;

b. activities which have actually finished, shall have the actual finish date input, the physical percent complete shall be set to 100% and the remaining duration shall be 0;

c. activities in progress shall have their physical percentage complete updated based upon cumulative Earned Value relating to physical works complete;

d. for activities relating to design works, the physical percentage complete shall be determined by achievement of control points, as agreed by the Project Manager; and

e. the programme shall then be scheduled to the progress cut-off date. Significant changes to the critical path, re-sequenced work and significant float erosion and any negative float shall be clearly explained in the programme narrative.

(4) Templates for Earned Value reporting will be provided to the *Contractor* electronically by the Project Manager, within two weeks of the starting date

.

WI 535.2 Resource and Cost Loading the Programme

(1) The *Contractor* shall ensure that the programme for acceptance is fully loaded with man hours, the total of the Prices and quantities for performance measurement purposes using suitable resource profiles, agreed with the Project Manager, which reflect the work-off for each activity.

(2) For the purposes of performance reporting and measurement, the Accepted Programme shall only be adjusted by agreement between the *Contractor* and the Project Manager, to reflect the effects of implemented compensation events and / or significant changes to planned work sequences. The emphasis is to establish an accurate baseline from which to measure subsequent performance.

WI 535.3 Cost Loading

(1) The *Contractor* shall cost load the programme for acceptance at a suitable level, to be agreed by the Project Manager for the works, as defined within Contract Data Part 2.

(2) Each four weekly reporting period, the *Contractor* shall update, in the revised programme, for acceptance by the Project Manager, the cost loading to reflect the Price of Work Done to Date (PWDD) and the *Contractor*'s assessment of forecast costs to go, including the impact of implemented compensation events.

(3) Sufficient cost shall be allocated to tail-end and finishing activities including

snagging and Completion package preparation, in order to avoid overvaluing work in the earlier stages.

WI 535.4 Resource Loading

(1) The *Contractor* shall resource load the programme for acceptance with resources and quantities, at a suitable level, to be agreed by the Project Manager.

(2) Each four weekly reporting period, the *Contractor* shall update, in his revised programme submitted for acceptance, the resource loading to reflect actual resources used to date and the *Contractor*'s assessment of forecast to go, including the impact of trends and implemented compensation events.

WI 535.5 Budget Maintenance within Primavera

(1) The *Contractor* shall not change, or move cost or resources between activities on the Accepted Programme without the Project Manager's acceptance.

WI 535.6 Planned Expenditure (BCWS: Budgeted Cost for Work Scheduled)

(1) The Accepted Programme will be the basis of the planned expenditure unless the Project Manager instructs otherwise.

(2) Each reporting period, data shall be exported from Primavera at a summary level (the appropriate level to be agreed by the Project Manager) and formatted into a Performance Measurement Data Summary (PMDS) which will then translate the data into graphs for comparison with earned value, PWDD and forecast Defined Cost to completion data. The Earned Value graphs shall show the early start and late start BCWS profile envelope, which shall be generated from data downloaded from Primavera to the PMDS within Excel.

WI 535.7 Earned Value (BCWP: Budgeted Cost for Work Performed)

(1) The earned value shall be calculated by the *Contractor* for each four weekly reporting period following a quantitative analysis of physical works completed to date. This analysis shall be translated into physical percentage complete for each programme activity and cost component, consolidated to summary activities agreed by the Project Manager and incorporated into a Cost Value Report (CVR) for comparison with PWDD. The CVR template will be provided to the *Contractor* by the Project Manager within two weeks of the starting date.

WI 535.8 Price for Work Done to Date (PWDD) (ACWP: Actual Cost for Work Performed)

(1) The Price of Work Done to Date (PWDD) (including monies paid and accruals

for works performed up to the cut-off date of reporting period) shall be related to each element of works.

(2) Coding of each activity within the programme as defined within Contract Data, Part 2, shall allow all costs to be summarised by programme summary activities (as agreed with the Project Manager) and cost component (e.g. people, Equipment, etc.).

(3) This data shall then be incorporated by the *Contractor* into the CVR, for comparison with Earned Value.

WI 535.9 Cost to Completion

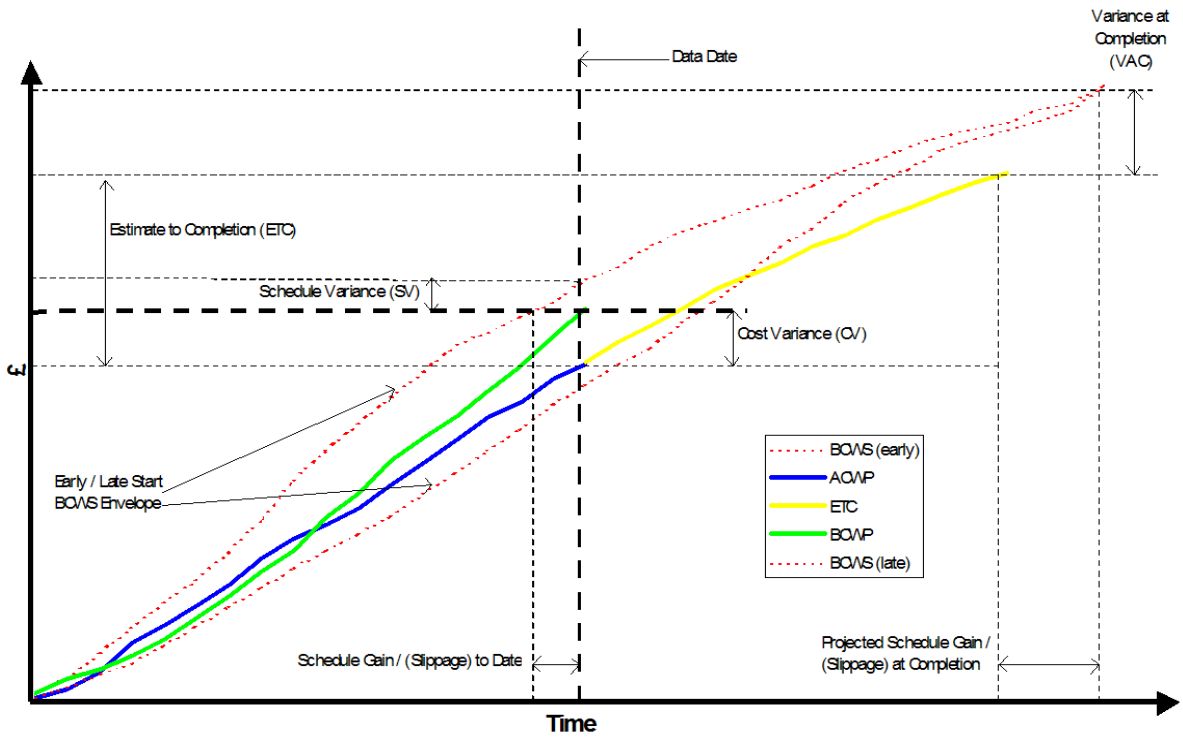
(1) Each reporting period the *Contractor* will produce a forecast of the remaining expenditure (total Defined Cost less PWDD) phased over the remainder of this Contract. This will show separately, the original scope of works, and any implemented compensation events.

(2) Separately, the *Contractor* will also show his forecast remaining expenditure associated with notified compensation events and early warning notices.

WI 535.10 Performance Measurement Analysis

(1) The *Contractor* shall present the relevant performance measurement data in the project performance measurement data analysis report template with accompanying performance curves as shown in Appendix 05-01, for inclusion within the four weekly progress report.

Appendix 05-01: Earned Value Performance Measurement Curves



Performance indicators are generated from the relationships of the following:

BCWS (early)	Budgeted Cost of Work Scheduled (Planned: Early Start dates);
BCWS (late)	Budgeted Cost of Work Scheduled (Planned: Late Start dates);
BCWP	Budgeted Cost of Work Performed (Earned Value);
ACWP	Actual Cost of Work Performed (Actual);
BAC	Budget at Completion (Current Target Price);
ETC	Estimate to Completion (Current Cost Forecast to Go); and
EAC	Estimate at Completion (Current Cost Forecast)

The Current Performance Indicators are:

Cost Variance	= BCWP – ACWP
Schedule Variance (Cost)	= BCWP BCWS
Schedule Variance (Schedule)	= Current Date – Earned Date
Cost Performance Index (CPI)	= BCWP / ACWP
Schedule Performance Index (SPI)	= BCWP / BCWS

NB: CPI or SPI greater than 1 is Favourable, whereas less than 1 is Unfavourable.

The Forecast Completion Performance Indicators are:

Cost Variance at Completion	= EAC – BAC
Schedule Variance at Completion	= Planned – Forecast Completion Date

EMPLOYER'S WORKS INFORMATION SECTION

WI 600

Quality Assurance

WI 600 Quality Assurance

WI 610 Quality Management

The *Contractor* provides the Services under a quality management system which complies with the *conditions of contract*.

WI 620 Standards and Specifications

Except where otherwise directed; all materials, workmanship, designs and assessments are to comply with the *Employer's* current standards and procedures as amended from time to time or, for *Contractor* designed elements, the time the relevant design certificate is signed.

The *Employer's* standards and procedures include, but are not limited to:

i. Standards, Advice Notes, Technical Memorandums and Interim Memorandums contained in the Design Manual for Roads and Bridges published by The Stationery Office (TSO).

ii. The *Employer*'s Work Specification (See WI2000), to be completed by the *Contractor*'s designer during PCF Stage 5. Draft requirements, current at the date of issue of this document, are included for reference.

iii. Notes for Guidance to the Specification for Highway Works, published by TSO as Volume 2 of the Model Contract Document for Highway Works.

iv. Highway Construction Details, published by TSO as Volume 3 of the Model Contract Document for Highway Works.

v. Interim Advice Notes, issued by Highways England.

vi. Highways England's Advice Manual for the New Roads and Street Works Act 1991 – Diversionary Works (SA10/05).

vii. Road Circulars and other documents, available from Highways England or Department for Transport.

viii. Other documents from third party bodies called up in the Works Information, Annexes and Numbered Appendices.

ix. The Numbered Appendices to the Specification for Highway Works which are to be completed by the *Contractor* for the design elements carried out by him. Where the Specification for Highway Works calls for information to be included in the Specification Appendices, and this information is not contained in the Works Information, then the *Contractor* shall include this information in the appropriate Numbered Appendix. This information shall be provided with the Design Data for each item of work.

x. The Traffic Signs Regulations and General Directions 2002 (as amended) or any successor including the Traffic Signs Manual.

xi. Local Transport Notes, available from the Department for Transport website.

xii. Smart Motorway Programme Design Guide – Version 3.0, under Major Projects Instruction 041 (MPI-41)

xiii. Smart Motorway Programme, Programme Instructions

If a standard or procedure subsequently changes, the *Contractor* complies with the revised standard or procedure if instructed to do so by the *Project Manager*.

Unless otherwise stated in this Works Information, the Technical Approval Authority for the works is Highways England.

WI 630 Quality Plan

The *Contractor* produces a Quality Plan in accordance with the requirements of ISO 9001 and keeps a controlled copy of the plan available for inspection at all times by the *Employer*, the *Project Manager* and their representatives.

The *Employer's* Quality Plan requirements include, but are not limited to:

- ISO 9001 – Quality Management Systems - Requirements
- GD 2/16 – Quality Management Systems for Highway Design Activities
- ISO10005 – Quality Management Systems - Guidelines for quality plans

Appendix 1/24 of the *Employer*'s Work Specification (See WI2000) details the minimum requirements to be incorporated within the *Contractor*'s Quality Plan.

The Quality Plan shall include competency measures and controls. The Quality Plan will detail how the organisation shall:

a). Identify the role or position of the individual with the assigned responsibility for assessing competency and for assigning competent individuals to project specific activities.
b). Ensure that competency requirements to do work are determined and include a review against the DMRB, NHSS, EU and UK legislation.
c). Ensure that competency assessments are undertaken against the competency requirements which assess capability, competence and experience on the basis of appropriate education, training and/ or experience.
d). Where applicable, take action to acquire the necessary competence and evaluate the effectiveness of the actions taken; including provision of training and mentoring, or the reassignment, hiring or contracting of personnel.
e). Retain appropriate documented information as evidence of competence.

WI 640 Quality Statement

The additional quality aspects to be covered in the *Contractor*'s Quality Statement are set out within the Request for Quotation (RFQ) document. The responses must not conflict with or contradict with the *Suppliers* quality statements originally submitted under the overarching CDF Framework.

The *Contractor's* Quality Statement is to be incorporated into the Quality Plan, with adherence to the commitments to be reported on a monthly basis.

EMPLOYER'S WORKS INFORMATION SECTION

WI 700

Tests and Inspection

WI 700 Tests and inspection

WI 705 Tests to be completed

As part of the *Contractor's* Quality Plan a fully detailed inspection and test plan shall be submitted to the *Employer* for approval.

The *Contractor* has responsibility for all on-site and off-site testing. The *Contractor* agrees a schedule of testing in advance with the *Project Manager*. The *Contractor* also undertakes any additional testing required by the *Project Manager*.

The *Contractor* prepares all testing requirements for the *works* in the form of a completed Numbered Appendix 1/5. The information in Table NG 1/1 in the Notes for Guidance is deemed to be the minimum testing requirement.

Numbered Appendix 1/5 should include all required on-Site and off-Site testing, indicating clearly where testing is to be carried out off-Site. All tests are performed in a laboratory accredited by UKAS, or its European equivalent, and the *Contractor* complies in all respects with UKAS standards, publications and guidance notes. The *Contractor*'s testing proposals are included in the Construction Quality Plan which forms part of the *Contractor*'s Proposals.

The *Contractor*'s testing proposals are viewed as a working document throughout the duration of the contract and are reviewed and updated at regular intervals to ensure that the *Contractor* is fulfilling his obligations under the contract. During construction, the *Contractor* submits all testing proposals to the *Project Manager* as Design Data at monthly intervals or whenever it is updated, whichever is the sooner.

The *Contractor* takes into account when preparing Appendix 1/5 that routine tests carried out by manufacturers and suppliers in compliance with British Standards or other standards and specifications are not required to be entered in Numbered Appendix 1/5. However, where a test certificate is provided by such a supplier it must be indicated.

Within 3 months of issue of the Taking Over Certificate the *Contractor* submits to the *Project Manager* a report giving a summary of all testing and commissioning undertaken during construction and commissioning of the *works*. The report shall include certificates of compliance.

WI 725 Performance measurement

The *Project Manager* uses the current version of the Collaborative Performance Framework (CPF) as amended from time to time, in order to actively measure the *Contractor*'s performance.

The *Contractor* records performance against each of the indicators in the CPF and assists the *Employer* in the development of this measurement framework by proposing and developing ways in which improvements can be made to the Framework. No changes are implemented unless agreed in writing by the *Project Manager*.

Performance Review

The *Contractor* undertakes a performance review addressing all aspects of performance on a quarterly basis, or as instructed by the *Employer*.

The *Employer* leads additional annual reviews to assess all aspects of *Contractor* performance and trends in Performance Indicators (PIs).

Staff Performance

The *Contractor* promotes individual improvement of its staff which may include employees of

- the *Contractor*
- any Subcontractor or
- any supplier of the *Contractor*,

through mentoring, coaching and training.

The *Contractor* works with its staff to set individual objectives and targets that are aligned with the requirements of the specific scheme.

WI 730 Tests and inspections of Plant

Not used

WI 735 Defects

Following notification of a Defect, the *Contractor* submits to the *Project Manager* for acceptance the corrective and preventative action that he proposes to take to deal with the nonconformity. The *Contractor* does not take action to deal with the nonconformity until the *Project Manager* has accepted his proposals.

Within one week of the *Contractor* submitting the proposed corrective and preventative action to him for acceptance, the *Project Manager* either accepts the proposal or notifies the *Contractor* of his reason for not accepting it. A reason for not accepting the proposed action is that:

- it does not take action required to ensure that nonconformities do not recur or
- it does not comply with the Works Information.

If the *Project Manager* does not accept the proposed action, the *Contractor* submits a revised proposal to the *Project Manager* for acceptance within one week.

The *Contractor* corrects nonconformities and takes action to eliminate the causes of actual or potential nonconformities within a time which minimises the adverse effect on the *Employer* or Others and in any event before carrying out any operation the same or similar as that in respect of which the nonconformity occurred.

The *Contractor* notifies the *Project Manager* when the proposed actions have been taken and provides with his notification verification that the defective part of the *works* has been corrected.

EMPLOYER'S WORKS INFORMATION SECTION

WI 800

Management of the Works

WI 800 Management of the works

The *Contractor* actively manages the *works* and the integration of the *works* with activities of the *Employer* and Others involved in the delivery of schemes and programmes of work under CDF.

The *Contractor* prepares the following management plans within four weeks of the Contract Date:

- a Project Plan - encompassing his management of the works, quality, safety and environmental management. This is to be produced during the Development Phase and approved prior to commencement of the Works.
- Schedule Management Plan
- Quality Management Plan
- Risk Register

The *Contractor* prepares the following management plans within eight weeks of the Contract Date:

- Stakeholder Management Plan
- Commercial Management Plan
- Information Management Plan
- Environmental Management Plan
- Communications Management Plan
- Commissioning Test and Integration Plan
- Issues Log
- Lessons Learned log
- Traffic Management Plan
- Waste Management Plan.

Management plans may be combined and cover multiple schemes being undertaken by the same *Contractor* under the SMP. The *Employer*'s aspiration is that these management plans shall be harmonised collaboratively across the SMP *Contractors.*

The *Contractor* keeps a controlled copy of the Management Plans available for inspection at all times by the *Employer*, the *Project Manager* and their representatives.

All management plans are updated at a frequency required to ensure the quality and effective integration of the works being delivered.

WI 805 Commissioning Report

The *Contractor* submits a commissioning report to the *Project Manager* within 2 weeks of the *starting date*. The commissioning report contains a summary of:

- a description of the *Contractor's* proposed method for Providing the Works (Clauses 20 and 31) as included in the first programme, or, if not yet submitted, intended to be included in the first programme;

- the *Contractor's* programme (Clause 31) or, if not yet submitted, the intended first programme;
- proposals and recommendations for changes or additions to the Works Information, including evidence as to why it would be advantageous to the *Employer* to make these changes or additions, and
- proposals for any subcontractors as already submitted under Clause 26 and current intentions for future subcontracting of the works (which will still require submission under Clause 26).

The commissioning report must not contradict any of the requirements described in the conditions of contract or the Works Information.

The *Project Manager* may ask the *Contractor* to clarify parts of the commissioning report, giving his reasons for the requested clarifications. Acceptance of the commissioning report does not change the requirements for submission and acceptance under the conditions of contract. Acceptance of the commissioning report does not constitute an instruction from the *Project Manager* to change the Works Information.

WI 810 Communications

Standard proformas shall be agreed between the *Contractor* and the *Project Manager* during the Development Phase including PMI's, TQ's, EWN, NCR's etc. These are to be populated in Annex D, and will be developed post-award.

The *Contractor* catalogues and indexes all documents and Communications.

Provision of cost information

A Work Breakdown Structure (WBS) incorporating a cost breakdown structure is prescribed by the *Employer.* The *Contractor* submits financial information in accordance with this WBS. It is intended that the *Contractor* will report Earned Value Management (EVM) performance against a standard Work Breakdown Structure (WBS) specified by the *Project Manager.*

Earned Value Reporting

The *Contractor* provides a verified monthly electronic Commercial Reporting and Monitoring System (CRaMS) form (on the current version or any replacement) to the *Project Manager* on the last working day of the reporting period.

The outline requirements for Cost Capture as required by the *Employer's* Cost Intelligence Team are detailed below.

Data to be supplied after signing of tender includes

1) A bill of quantities structured and coded to the latest Work Breakdown Structure with a six column split (staff, labour, plant and materials, equipment, subcontract and other)
2) Resource rate build ups and schedules
3) Subcontractor comparison sheets
4) Full set of successful subcontractors quotations
5) A summary of all successful subcontractors quotations on a template provided by the *Project Manager*
6) Clause 31 programme in P6 format ".xer" (or equivalent) and in .pdf format.

7) Full set of drawings used to price the tender.
8) Completion of scheme characteristics template provided by the *Project Manager*
9) Priced *Contractor's* stage 5 risk register.
10) *Contractor's* rate card
11) Gantry Schedule where appropriate

Data to be supplied by the *Contractor* after contract award includes

1) Initial order values for the order placed with the successful subcontractors, summarised against the original quotation (item 5 above) on the template provided,
2) Final outturn costs and the value of any change events summarised by subcontractor against the original subcontract order.

Invoicing

The *Contractor* includes on his invoices the requisition number and, where appropriate, the purchase order number. The *Contractor* submits with each invoice such records as the *Employer* requires.

A Work Breakdown Structure (WBS) incorporating a cost breakdown structure is prescribed by the Employer. All invoicing by the *Contractor* shall be in accordance with this WBS and the *Contractor* shall ensure that its Subcontractors make financial submissions in the same WBS format. All costs are to be coded to the latest Work Breakdown Structure with a six column split (staff, labour, plant and materials, equipment, subcontract and other).

The *Contractor* is to notify the *Employer* of the name and address of his bank, the account name and number, the bank sort code of the 'Project Bank Account' and any other details required to facilitate payment by the *Employer* to the *Contractor*.

Project Bank Account

The *Contractor* is to provide details of the Named Suppliers who will enter into the deeds for the Project Bank Account pursuant to Clause Z23.

Data Collection System

The *Contractor* properly captures all costs within a data collection system specified by the *Employer* for use on the scheme in respect of applications for payment.

If the *Employer*'s minimum requirements for the *Contractor's* data collection system are not met, the *Contractor* shall be required to affect such modifications or enhancements to its own data collection system, or those of its supply chain, as are required, to meet the *Employer*'s requirements. Any investment costs associated with implementing such enhancements shall be borne totally by the *Contractor* or its Subcontractor and not charged back to the *Employer*.

If at any point the *Employer's* minimum requirements for data collection systems are not being met and consequently the *Employer* has a valid concern with the financial controls being operated by the *Contractor* or its supply chain, the *Employer* shall give formal notice to the *Contractor* and all payments due to the *Contractor* will be reduced until the matter is rectified to the *Employer's* satisfaction.

A Commodity Breakdown Structure (CBS) incorporating a cost breakdown structure is prescribed by the *Employer* and is set out in Annex O. The *Contractor*'s data collection system must have the capability to capture and code costs to Commodity Breakdown Structure Level 3 (on the current version or any replacement). The *Employer* shall also require the Contractor to allocate costs to the level of detail at Commodity Breakdown Structure Level 4.

The *Contractor* shall be required to provide the *Employer* with full transparency and audit rights to its own costs and those of its supply chain. The *Employer* reserves the right to carry out a range of overt and covert reviews and detailed audits to verify and provide assurances that all costs and resources have been properly incurred by the *Contractor* and its Subcontractors and that they accord with the defined standard Schedule of Cost Components and/or subcontract terms.

The *Contractor* is required to replicate a similar cost audit regime when dealing with the reimbursable costs of Subcontractors and other related parties. The *Employer* shall have rights of access to *Contractors* at lower tier levels to audit/verify reimbursable costs that have been applied for. Subcontractor audits will not be carried out without the *Contractor's* prior notification and, where the *Employer* agrees, involvement.

The *Employer's* expectation is that verification reviews and audits will be carried out as an integral part of the *Contractor's* process for the review of Price for Work Done to Date and Price for Work Done to Completion. The *Employer* requires that the *Contractor's* internal process and scope of these compliance reviews are approved by the *Employer* and that for all Schemes the *Employer* would require an audit plan to be developed for the *Employer's* review prior to implementation. For higher risk Subcontractors accounts the *Employer* expects that a robust schedule of verification checks and audits are carried out by appropriately qualified personnel to ensure that at all times the *Employer* achieves value for money.

The *Contractor* is required to provide the *Employer* with appropriate information and details and read-only access to the *Contractor's* data collection system accounts and records in order to allow all cost and verification reviews to be conducted and agreed in a timely manner.

If the *Contractor* fails to provide such timely information, and/or access, and that failure results in a delay to agreement of new rates and costs that are to be used for reimbursement of Defined Cost, then there shall be no liability on the *Employer* to adopt new rates and thereafter back date any rate increases beyond the date when agreement is reached (unless the *Employer* agrees an extension of time). In addition, it will prejudice any right the *Contractor* otherwise may have had to interest. In cases where the annual commercial review has been delayed by the *Employer*, the *Employer* shall make payment for costs at the previously agreed rates, or forecast new rates, until changes are agreed. Once the new rates are agreed the *Employer* shall apply the new rates from the date that the agreement should have been reached and make any additional payments resulting from the difference between the old rates and the new rates.

The *Contractor* must keep current records of all costs, directly-employed staff and operatives so that these can be validated by the *Employer* within a period of at least 24 months from the date on which such costs were incurred through sampling, inspection or audit, or 12 months after Completion, whichever is the later date. If the *Contractor* chooses to archive this information, retrieval costs from archive will not be allowed as Defined Costs, similarly archive costs will not be allowed as Defined Costs (such costs considered being out with the Schedule of Cost Components and included in the *Fee*). The *Contractor* must also ensure that there are similar obligations on its Subcontractors and that the *Employer* has a similar right to audit the contemporary records they are required to maintain.

Audit/reviews carried out by the *Employer* shall embrace any or all of the following in respect of which the *Contractor* is required to provide ready access to the *Employer* or the *Employer's* representatives, albeit on a controlled basis:

- all company accounts (statutory, management, divisional, Scheme);
- Scheme cost reports;
- staff and labour payroll;
- subcontract accounts and records;
- purchase ledger systems;
- *Contractor* procurement and other contract files;
- ordering systems;
- discount and rebate information;
- internal cross charges;
- Scheme specific bank statements;
- variance analysis reports; and
- cash flow statements

The *Employer* shall also require access to the same information from time to time in assessing the effect of compensation events and/or assessing the amount due at each assessment date. This list is not exhaustive and the *Employer* or the *Employer's* representative may request access to other records and sources of information. Access to such other records will be subject to the *Contractor's* prior agreement.

Provision of electronic documents and data

If information is to be exchanged electronically, the *Contractor* complies with the *Employer's* procedures for safeguarding the connection and the format of transmitted data.

Electronically stored data is provided in a format capable of transfer to readily available equipment in general use.

WI 814 Information Systems

The *Contractor* complies with the *Employer*'s information systems requirements.

WI 815 Information security

The *Contractor* collects the following personal data on behalf of the *Employer*:

- contact details of people involved as *key persons* and stakeholders

When processing personal data on behalf of the *Employer*, the *Contractor* complies with the following requirements.

The *Contractor* complies with the *Employer's* security policy and procedures, set out in the documents "Statement of Highways England IT Security Policy" and Chief Information Officer Memos 01/09, 05/08 and 04/08 or any subsequent amendments thereto.

The *Contractor* prepares a robust Information Security Plan complying with the *Employer's* security policy and submits it to the *Project Manager* for acceptance. The *Contractor* includes the security plan in its quality management system. The security plan includes procedures which:

- ensure compliance with the Data Protection Acts;
- protect information against accidental, unauthorised or unlawful processing, destruction, loss, damage or disclosure of Personal Data;
- ensure that unauthorised persons do not have access to Personal Data or to any equipment used to process Personal Data;
- protect IT systems from viruses and similar threats;
- provide for disaster recovery, and in particular ensure that the Personal Data is safely backed-up; and
- provide for the vetting of its employees and Subcontractors' staff in accordance with the *Employer's* staff vetting procedures as indicated in Annex B.

The *Contractor* provides training for its employees and Subcontractors in accordance with the security plan.

The *Contractor* does not use any confidential or proprietary information provided to or acquired by it for any purpose other than to provide the Works. The *Contractor* implements measures to prevent the disclosure of such information by his employees or Subcontractors.

On Completion or earlier termination, the *Contractor* gives to the *Project Manager* all personal data held by them and destroys electronic and paper copies of such data in a secure manner.

Data Handling Requirements

The *Contractor* complies with the *Employer*'s Data Handling policy when working on the *Employer*'s systems or handling the *Employer*'s data.

A system on which the *Contractor* holds any *Employer*'s data, including back-up data, is a secure system that complies with the Security Policy.

If the *Employer*'s data is corrupted, lost, stolen or sufficiently degraded as a result of the *Contractor*'s default so as to be unusable, the Contractor immediately reports this to the *Employer*. The *Employer* may:

- require the *Contractor* (at the *Contractor*'s expense) to restore or procure the restoration of *Employer*'s data to the extent and in accordance with the requirements specified; and/or
- itself restore or procure the restoration of *Employer*'s data, and shall be repaid by the *Contractor* any reasonable expenses incurred in doing so to the extent and in accordance with the requirements specified.

WI 820 Meetings

Progress Meetings

Following the award of the contract, the first meeting will be the kick off meeting to confirm protocols between the parties and run through all aspects of project governance and reporting. The *Contractor* shall convene and attend monthly progress meetings with the *Project Manager*. The following attendees from the *Contractor* at these meetings are required unless otherwise agreed by the *Project Manager:*

- Contractors Project Manager
- Design Manager;
- Planner
- Commercial Manager
- Environmental coordinator;
- Health and safety coordinator; and
- Support staff deemed necessary for the meeting or as requested by the *Project Manager*.

The monthly progress meetings are held at a location to be agreed between the *Contractor* and the *Project Manager*.

The *Contractor* prepares the agenda for the monthly progress meeting and forwards it to the *Project Manager* at least four (4) working days prior to the meeting.

The *Contractor* prepares and issues minutes of the meeting to the *Project Manager* for acceptance within five (5) working days of the date of the meeting. The minutes include an abbreviated action list with assigned responsibilities and timescales by which actions will be closed out.

The *Contractor* prepares and submits to the *Project Manager*, at least two (2) working days in advance of the meeting, a monthly progress report to include the following information:

- Progress report for period covered by meeting;
- Information related to project performance indicators; (inc percentage complete for each phase/package in progress)
- Programme for next reporting period;
- Actual start dates of activities commenced since the previous updates and reasons for any changes from the approved Scheme programme;
- Actual completion dates of activities completed since the previous update and reasons for any changes from the approved Scheme programme;
- The anticipated time for completion, in working days, for activities in hand; (inc activity percentage complete)
- Any change requested by the *Contractor* to the programmed completion date and the reasons for any change;
- Proposals for retrieving of any slippage to the approved scheme programme;
- Design status issues; (including any information required from the Employer)

- Certificate status;
- Confirmation of scheme costs estimate and budget forecast;
- Payment schedule – agreement of compensation events;
- Insurance related issues;
- Subcontractors;
- Quality matters;
- Safety CDM issues;
- Risk register; and
- Media community liaison, publicity, and advertising matters

Other Meetings

During the Phase 1 the *Contractor* shall propose a calendar of meetings for the detail design and Construction Phase which shall include but not limited to:

- Early Warning Review Meetings;
- Risk Review Meetings;
- Traffic Management Meetings;
- Safety Meetings;
- Design Review Meetings;
- Environmental Coordination Meetings;
- Technical Working Group Meetings;
- Consultations with Third Parties;
- Operator and Maintainer Liaison Meetings;
- Core Responders Liaison Meetings;
- Risk Reduction Meetings;
- Quality Audit Meetings;
- Other Meetings with the *Project Manager*;
- Public Relations and Liaisons;
- National Roads Telecommunications Services (NRTS) & Regional Technology Maintenance Contractor (RTMC) Coordination Meetings;
- ASC Co-ordination Meetings;
- Commissioning & Handover Meetings.
- Consultations with Third Parties
- Public Relations and Liaisons

The *Contractor* shall, from time to time, also attend other meetings scheduled by the Employer to assist in sharing knowledge and shaping the Smart Motorways Programme. These shall include, but not be limited to:

- Technical Leadership Group Meetings;
- Peer to Peer Group Meetings
- Efficiency Review Group Meetings.

WI 821 Reporting

The *Contractor* is to co-ordinate and issue the monthly Project Dashboard during Construction utilising the standard Employers template.

WI 825 Personnel

The *Contractor* complies with the ***Employer's*** Personnel security Procedures set out in Annex B.

Basic Security checks are required when Contractors staffs are:

- working in the *Employer*'s premises, including offices, Regional Control Centres (RCC), the National Traffic Control Centre (NTCC) and any outstations owned and/or operated by the *Employer*;
- usage of the Employer's Information Systems; or
- working unsupervised in any other capacity.

The personnel identified in Annex L are required to be appointed under this contract, in addition to those Key People identified in Contract Data Part Two.

WI 835 Public communications

The *Contractor* discusses and seeks approval from the *Employer* before any corporate communications or publicity activity is undertaken by the *Contractor* on behalf of the *Employer*.

The *Contractor* keeps the *Employer* informed of any significant community issues and any public meetings being held to discuss major projects issues.

The *Contractor* liaises with the *Employer* before accepting any invitations to appear at public meetings or events related to work being undertaken on behalf of the *Employer*.

Where required, the *Contractor* works with the *Employer* to create specific communication plans. The objectives and outcomes of the plan(s) are set by the *Employer.*

The *Contractor:*

- populates and maintains a stakeholder management tracker, to set out and record engagement and progress with key stakeholder groups for all major schemes; and
- is committed to regular and open communication with the *Employer* and its internal / external stakeholders.

<u>Branding, Marketing, and Publicity</u>

The *Contractor* complies with ‘Highways England’s visual identity specifications.

- Employers visual identity specifications: What you need to know’;
- ‘Writing with style: Highways England’s tone of voice and style guide’

The *Employer*’s branding is present on all scheme-related materials.

The *Contractor* assists with regular information updates for the *Employer*’s websites. The *Contractor* does not set up independent websites or develop independent logos or branding for the *Employer*’s major projects.

The *Contractor* undertakes information and communications activity as is required, while observing any spending or operational restrictions in force at that time.

The *Contractor* agrees the extent of communication and publicity with the *Project Manager*, through the development of agreed programme / scheme communication plans.

Programme /scheme communication plans make use of existing approved material, so far as is practicable.

EMPLOYER'S WORKS INFORMATION SECTION

WI 900

Working with the Employer and Others

WI 900 Working with the Employer and Others

The *Contractor* does not enter into commitments when dealing with third parties that might impose any obligations on the *Employer* except with the consent of the *Employer*.

The *Contractor* shall work with the other organisations identified in the *Employer*'s Work Specification (See WI2000, Appendix 1/16 and clause 116 of the Specification for Highway Works).

WI 905 Sharing the Working Areas with the Employer and Others

The *Contractor* cooperates with, and shares the Working Areas with the following organisations:

i) Highways England's Regional Control Centres (RCC's)

ii) Maintenance Service Providers

   a. Maintaining Agent Contractor (MAC),

   b. Asset Support Contractor (ASC),

   c. Regional Technology Maintenance Contractor (RTMC).

iii) National Roads Telecommunications Services (NRTS) Provider and their installation Contractors;

iv) Distribution Network Operators;

v) Specialist Contractors:

   a. Specialist HADECS Contractor;

   b. Specialist AMI / MS4 / MS3 Contractors;

   c. Specialist Surveillance CCTV Contractors;

vi) Other Statutory undertakers carrying out works required by this contract.

vii) Other Contractors:

   a. Adjacent Highways England Scheme Contractors;

   b. Collaborative Delivery Framework (CDF) Contractors,

   c. Asset Support Framework (ASF) Contractors,

   d. Category Management Contractors.

   e. Local Authority Contractors

viii) Network Rail in relation to their infrastructure;

ix) Others as the *Project Manager* may instruct.

WI 915 Coordination

The *Contractor* co-operates with other Suppliers in obtaining and providing information which they need in connection with work under the Framework.

The *Contractor* shall comply with the special requirements of Statutory Bodies identified in the *Employer*'s Work Specification (See WI2000, Appendix 1/16).

The *Contractor* considers joint approaches to Operations Directorate (OD) / Information Technology Directorate (ITD) with schemes in the same region, wherever possible.

The *Contractor* provides a programme to OD and ITD senior users of their Stage Gate Review (SGAR) and PCF timescales.

The *Contractor* programmes works in a manner that minimises the impact on the customer, working in conjunction with MP and OD/ ITD.

The *Contractor* programmes any PCF product review requests at least 6 weeks in advance, and ensures that all programmed dates are met.

The *Contractor* pursues practices where design, supply, construction and operational specialists work alongside each other, developing integrated solutions.

The *Contractor* co-locates teams where appropriate and encourages information sharing, communication, concurrent working and a proactive delivery culture.

The *Contractor* shares information; communicates openly with the *Employer*, continuously shares lessons learnt and achievements and enables embedded learning.

EMPLOYER'S WORKS INFORMATION SECTION

WI 1000

Services and Other Things To Be Provided

WI 1000 Services and other things to be provided

Services provided by the *Contractor* for the use of the *Employer* and Others are identified in the *Employer*'s Work Specification (See WI2000, Appendix 1/1, 1/2 and 1/3).

EMPLOYER'S WORKS INFORMATION SECTION

WI 1100

Health and Safety

WI 1100 Health and Safety

WI 1105 Health & Safety Requirements

Before commencing the construction phase of the works, the *Contractor* confirms to the *Project Manager* that adequate welfare facilities are in place.

The *Contractor* operates an occupational health management system in line with the requirements of HSE's construction occupational health management model.

The *Contractor* complies with *Employer's* Interim Advice Note 128/15AR Highways England Supply Chain Health and Safety Incident Reporting ("**IAN 128**"), or its later update or replacement, including any time periods required by IAN 128. If no time period is specified in IAN 128 the *period of reply* applies unless agreed otherwise by the *Project Manager*.

If any incident occurs that the *Contractor* considers is not within the remit of IAN 128 then the *Contractor*

- notifies the *Project Manager* of the incident and
- reports the incident as if the incident was in the remit of IAN 128 if required by the *Project Manager*.

Any document that would otherwise fall to be disclosed by the *Contractor* to the *Employer* may be withheld by the *Contractor* provided the *Contractor*'s legal advisor confirms to the *Project Manager* that the document is

- a confidential communication between the *Contractor* and its legal advisor for the purposes of seeking or giving legal advice that the legal advisors would normal expect to be given legal privilege in the normal course of its business with the *Contractor* or
- a confidential communication between the C*ontractor* or its legal advisers and third party where the communication came into existence with the dominant purpose of being used in connection with contemplated, pending or actual litigation in adversarial proceedings (as opposed to investigations or fact finding inquiries).

The *Contractor* issues the information in the Health and Safety file to the *Project Manager* at Completion of the whole of the *works*.

The *Contractor* and the *Employer* notify each other of any known special health and safety hazards which may affect the performance of the *works*. The *Contractor* informs and instructs people employed by him on the hazards and any necessary associated safety measures.

Employer's Health and Safety Requirements

The *Contractor* embraces and contributes to Highways England's Aiming for Zero initiative.

The *Contractor* complies with the ***Employer***'s rules, regulations, health and safety policies and any safety and security instructions notified to the *Contractor.*

The *Contractor* complies with the minimum requirements specified in Highways England's 'raising the bar' guidance.

Additional Reporting Requirements for Principal Contractors

Reporting requirements for Incidents involving Highways England's employees, consultants, contractors & sub-contractors etc

Note:
This reporting requirement is supplementary to and does not replace other contractual reporting requirements i.e. IAN 128/15/r. It aims to ensure that
Highways England's regional senior managers are informed of incidents through internal Highways England's procedures.

Where the *Contractor* is appointed as Principal Designer under the Contract, the *Contractor* must comply with the below "Requirements of Principal Designer":

Requirements of Principal Designer

Where the *Contractor* is appointed as Principal Designer under the Contract, the*Contractor* fulfils the duties of Principal Designer in respect of all the services to which the Construction (Design and Management) Regulations 2015 apply.

The *Contractor* as Principal Designer meets the criteria in the HSE Guidance on the Construction (Design and Management) Regulations 2015. As the Principal Designer, the *Contractor* ensures that the design work in the pre-construction phase contributes to the delivery of positive health and safety outcomes. This includes that, as far as is reasonably practicable, foreseeable risks to health and safety are identified and once the risks have been identified the Principal Designer follows the approach to managing them as set out in the general principles of prevention in Appendix 1 of the HSE Guidance on the Construction (Design and Management) Regulations 2015.

Requirements of Principal Contractor

Immediately following an incident on Site which involves a Highways England employee, consultant, contractor, sub-contractor or other member of the supply chain which has resulted in the following occurrences, the *Contractor*, reports, as soon as is reasonable (and in line with NILO procedures), brief details of the incident directly by telephone to the ***Employer's*** relevant Regional Control Centre (RCC) on the 24/7 duty operations number.

When contact is established with the RCC, the reporting authority is to state that the incident should be handled under the HE "National Incident Liaison Officer (NILO)" procedures.

- i) Death of any Highways England employee, consultant, contractor, sub-contractor or other member of the supply-chain, from an injury sustained while undertaking duties in connection with their work on this Package Contract.

- ii) Serious injury (as defined by the HSE) of any Highways England employee, consultant, contractor, sub-contractor or other member of the supply-chain, sustained while undertaking duties in connection with their work on this Package Contract.

- iii) Minor injury of any Highways England employee, consultant, contractor, sub-contractor or other member of the supply-chain sustained while undertaking duties in connection with their work on this Package Contract, no matter how slight.

- iv) Any collision or incident involving a: "TO vehicle, winter service vehicle, any other works vehicle or any type of supply-chain vehicle, which strikes (or is struck by) a third-party vehicle (even if there is no injury or no damage to any party) while undertaking duties in connection with their work on this Package Contract.

WI 1110 HSMM Action Plan

WI 1110 HSMM Action Plan	
WI1110.1	In this Works Information, HSMM Plans are
	· a completed Health and Safety Maturity Matrix (HSMM) for the *Contractor* or each Consortium Member in the form required by the *Employer*, recording the level of safety maturity within the organisation at the date of the HSMM,
	· an implementation plan, setting out the actions to be taken by the *Contractor* or each Consortium Member over a period of 12 months following the date of the HSMM in order to improve the scores recorded in the HSMM by not less than the percentage specified from time to time by the *Employer*, including the timescale for each action
	· a health and safety maturity matrix action plan (HSMM Action Plan) setting out the specific actions to be taken under this contract by the *Contractor* and its subcontractors (at any stage of remoteness from the *Employer*) in order to support delivery of the improvements identified in the implementation plans for the *Contractor* or each Consortium Member.
WI1110.2	The *Contractor* prepares the HSMM Action Plan and submits it to the *Project Manager* not later than 6 weeks following commencement.
WI1110.3	The HSMM Action Plan is based on the HSMM and the associated implementation plan produced by the *Contractor* (or, where the *Contractor* is a joint venture, by each Consortium Member). It details the specific actions to be taken under this contract by the *Contractor* and its subcontractors (at any stage of remoteness from the *Employer*) in order to support delivery of the improvements identified in the implementation plans for the *Contractor* or each Consortium Member.
WI1110.4	The *Contractor* updates the HSMM Action Plan
	· as needed to support delivery of the improvements identified in the implementation plans and, in any case,
	· on each anniversary of the date specified in paragraph WI1140.2 or another date agreed with the *Employer* under paragraph WI1140.7.
	The annual updates are based on the updated HSMM and implementation plans produced by the *Contractor* (or, where the *Contractor* is a joint venture, by each Consortium Member).

WI1110.5	The *Contractor* keeps a controlled copy of the HSMM Action Plan available for inspection by the *Employer* and his representatives (including the *Project Manager* and the *Supervisor*) at all times.
WI1110.6	The *Project Manager* notifies the *Contractor* if at any time he considers that the HSMM Action Plan
	· does not comply with the requirements of this contract or
	· is not capable of delivering the improvements identified in the implementation plans.
	Following such notification, the *Contractor* reviews the HSMM Action Plan and reports to the *Project Manager* setting out his proposed changes. If the *Project Manager* accepts the proposals, the HSMM Action Plan is changed.
WI1110.7	If the *Contractor*, (or, where the *Contractor* is a joint venture, a Consortium Member) has other contracts with the *Employer*, the Parties may agree with the *Employer*
	· for the preparation of the initial HSMM required by this contract, if the *Contractor* (or, where the *Contractor* is a joint venture, a Consortium Member) has prepared an HSMM under another contract with the *Employer* in the last 12 months, the *Contractor* or Consortium Member may rely upon that HSMM assessment,
	· where the *Contractor* (or, where the *Contractor* is a joint venture, a Consortium Member) has submitted an HSMM Action Plan under another contract with the *Employer*, the *Contractor* may use that HSMM Action Plan under this contract with any necessary amendments annexed and
	· the *Contractor* may update the HSMM Action Plans under this and other contracts as a core action plan with contract specific annexes within [four] weeks after the *Contractor* (or, where the *Contractor* is a joint venture, each Consortium Member) produces its updated HSMM and implementation plans.

W I 1115 Legal requirements

The *Employer* appoints the *Contractor* to act as Principal Contractor and Principal Designer for the purposes of the Construction (Design and Management) Regulations 2015. The *Contractor* provides information to the *Project Manager* to demonstrate that individuals proposed for appointment to carry out the duties of the Principal Designer possess the skills, knowledge and experience to meet the requirements given in the Health and Safety Executive's guidance on regulations (L153), "Managing Health and Safety in Construction".

EMPLOYER'S WORKS INFORMATION SECTION

WI 1200

Subcontracting

W I 1200 Subcontracting

WI 1205 Restrictions or requirements for subcontracting

1205.1 The *Contractor* obtains a minimum of 3 competitive quotations for the appointment of any Subcontractor or supplier for works/ services with a value in excess of £50,000.

1205.2 All structural steelwork including the fabrication and erection of new steelwork and the dismantling, modification, fabrication, refurbishment and re-erection of existing steelwork for bridgeworks, footbridges, sign gantries and other similar structures is to be undertaken by a steelwork contractor listed in the "Bridgeworks Scheme of the Register of Qualified Steelwork Contractors" for the type and value of the work to be undertaken, or equivalent. This requirement may also be satisfied, if necessary, by registration and audit under an approved equivalent registration scheme from another member state of the European Union provided that the scheme ensures corresponding levels of safety, suitability and fitness for purpose.

1205.3 Enquiries about the Register of Qualified Steelwork Contractors should be made to:

The Register of Qualified Steelwork Contractors
4 Whitehall Court
London
SW1A 2ES

1205.4 Subject to WI1205.5, the *Contractor* ensures that all

- Subcontractors and
- sub-subcontractors

are Named Suppliers.

1205.5 The *Contractor* may propose to the *Project Manager* that a Subcontractor or sub-subcontractor is not a Named Supplier. The *Contractor* does not appoint a Subcontractor (and ensures that a Subcontractor does not appoint a sub-subcontractor) who is not a Named Supplier unless the *Project Manager* has accepted the *Contractor*'s proposal. A reason for not accepting the *Contractor*'s proposal is that it is practicable for the Subcontractor or sub-subcontractor to be a Named Supplier.

1205.6 The *Contractor* submits the proposed contract data for each subcontract to the *Project Manager* for acceptance, and for the purposes of clause 26.4 this WI1205.6 is the *Project Manager*'s instruction to the *Contractor* to make the submission.

1205.7 When procuring a Relevant Subcontract, the *Contractor* complies with the requirements of WI1400 in addition to WI1205 and WI1210.

WI 1210 Acceptance procedures

1210.1 Before advertising any proposed subcontract the *Contractor* submits to the *Project Manager* for acceptance

- the proposed subcontract in full,
- a report demonstrating how the proposed subcontract meets all the obligations and requirements for any subcontract under this contract and

- how the proposed subcontractors meets all the obligations and requirements for any subcontracting obligations under this contract.

1210.2 Reasons for the *Project Manager* not accepting the proposed subcontract or Subcontractor are

- the proposed subcontract does not meet the requirements or obligations of this contract,
- the proposed Subcontractor does not meet the requirements or obligations of this contract or
- the Subcontractor's appointment will not allow the *Contractor* to Provide the Works.

EMPLOYER'S WORKS INFORMATION SECTION

WI 1300

Title

WI 1300 Title

WI 1305 Marking

To prepare Equipment, Plant and Materials which are outside the Working Areas for marking by the *Supervisor*, the *Contractor:*

- marks the Equipment, Plant and Materials in the location they are stored so as to show that their destination is the Working Areas and that they are the property of the *Employer*,
- provides to the *Supervisor*;
    - evidence that the title to the Equipment, Plant and Materials has passed to the *Contractor* and
    - a schedule identifying the location they will be stored in until they are brought to the Working Areas and giving the value of each item of the Equipment, Plant and Materials Plant or Materials stored.

EMPLOYER'S WORKS INFORMATION SECTION

WI 1400

Acceptance or Procurement Procedure (Options C, D, E and F)

WI 1400 Acceptance or procurement procedure (Options C, D, E and F)

Procurement of a Relevant Subcontract[1]

1400.1 The *Contractor* awards any Relevant Subcontract on the basis of the most economically advantageous tender (as defined in the Public Contracts Regulations 2015) following a fair, transparent and competitive process proportionate to the nature and value of the Relevant Subcontract. The *Contractor* conducts the financial assessment of any Relevant Subcontract tenders on a whole life cost basis.

1400.2 The *Contractor* advertises any Relevant Subcontract in accordance with Procurement Policy Note 16/15 "Procuring steel in major projects" unless the *Project Manager* agrees that to do so would be disproportionate to the nature and value of the Relevant Subcontract.

1400.3 In procuring all Relevant Subcontracts, the *Contractor* takes into account

- compliance by the Relevant Subcontractor with
  - health and safety legislation and the protection of any staff involved in any production or manufacturing process of any steel material or steel product,
  - welfare legislation or
  - employment legislation,
- the carbon footprint of any steel materials or steel products used in or to Provide the Works so as to minimize any carbon emissions,
- the social integration of disadvantaged workers or members of vulnerable groups among the staff performing the contract and used to Provide the Works, such as the long-term unemployed (defined as people who have been unemployed for 12 months or more),
- the Relevant Subcontractor's commitment to provide training in the skills needed
  - to perform any Relevant Subcontract or
  - to Provide the Works,

  such as the hiring of apprentices and
- the whole life cost and cost-effectiveness of any steel materials or steel products used in or to Provide the Works, including the cost (measured over the life-cycle of the material or product in question) of
  - transport or transportation,
  - insurance,
  - assembly and disposal and
  - use, including
    - the cost of energy and other resources,
    - maintenance costs and

- costs associated with environmental impacts, including the cost of any emissions in its production or manufacture.

1400.4 The *Contractor* submits the proposed assessment criteria, assessment methodology and scoring methodology for any proposed Relevant Subcontract to the *Project Manager* for acceptance before advertising any proposed Relevant Subcontract. Reasons for the *Project Manager* not accepting the submission are that the proposed assessment criteria, assessment methodology or scoring methodology

- are not transparent (as defined in the Public Contracts Regulations 2015),
- will not allow equal treatment of all tenderers (as defined in the Public Contracts Regulations 2015)
- do not reflect Crown Commercial Services' publication "Steel procurement in major projects - Guidance on the application of social issues" or
- do not comply with this contract.

1400.5 Before advertising any proposed Relevant Subcontract the *Contractor* submits to the *Project Manager* for acceptance

- the proposed Relevant Subcontract in full and
- a report demonstrating how the proposed Relevant Subcontract meets all the obligations and requirements for a Relevant Subcontract under this contract.

1400.6 A reason for the *Project Manager* not accepting the proposed Relevant Subcontract is that it does not meet the requirements or obligations of this contract.

1400.7 The *Contractor* submits to the *Project Manager* for acceptance the name of the proposed Relevant Subcontractor and a report demonstrating

- how the proposed appointment complies with this contract,
- how the proposed Relevant Subcontractor demonstrates and meets the assessment criteria and
- how the assessment methodology and scoring methodology have been complied with.

Reasons for the *Project Manager* not accepting the proposed appointment of a Relevant Subcontractor are that

- the tender assessment does not comply with the accepted assessment methodology or scoring methodology,
- the tender assessment does not demonstrate how the Relevant Subcontractor meets the assessment criteria,
- the Relevant Subcontractor's appointment will not allow the *Contractor* to Provide the Works or
- the Relevant Subcontractor's appointment will not comply with this contract.

EMPLOYER'S WORKS INFORMATION SECTION

WI 1500

Accounts and Records
(Options C, D, E and F)

WI 1500 Accounts and records (Options C, D, E and F)

None

EMPLOYER'S WORKS INFORMATION SECTION

WI 1600

Parent Company Guarantee
(Option X4)

WI 1600 Parent Company Guarantee

The form of Parent Company Guarantee is set out in Annex A.

Legal Opinion for non-United Kingdom Registered Companies

Any legal opinion provided by the *Contractor* in support of a Parent Company Guarantee from a non-UK registered company includes (among others) the following matters:

- confirmation that
    - the Controller is a corporation duly incorporated in the relevant jurisdiction, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated,
    - the Controller has full power to execute, deliver, enter into and perform its obligations under the Parent Company Guarantee,
    - all necessary corporate, shareholder and other action required to authorise the execution and delivery by the Controller of the Parent Company Guarantee and the performance by it of its obligations under it have been duly taken,
    - execution by the proposed signatories in accordance with the method of execution proposed will constitute valid execution by the Controller,
    - the execution and delivery by the Controller of the Parent Company Guarantee and the performance of its obligations under it will not conflict with or violate
        - the constitutional documents of the Controller,
        - any provision of the laws of the jurisdiction in which it is incorporated,
        - any order of any judicial or other authority in the jurisdiction in which it is incorporated or
        - any mortgage, contract or other undertaking which is binding on the bidder or its assets and
    - (assuming that it is binding under English law) the Parent Company Guarantee constitutes legal, valid and binding obligations of the Controller enforceable in accordance with its terms,
- notification of any other formalities to be complied with under local law which may be necessary to enforce the Parent Company Guarantee in the Controller's place of incorporation, including (for example) notarisation, legalisation or registration of the Parent Company Guarantee,
- notification of whether withholding is required to be made by the Controller in relation to any monies payable to *Employer* under the Parent Company Guarantee,
- confirmation of whether the *Employer* will be deemed to be resident or domiciled in the foreign jurisdiction by reason of its entry into the Parent Company Guarantee and
- confirmation that the Controller and its assets are not entitled to immunity from suit, pre-judgment attachment or restraint or enforcement of a judgment on grounds of sovereignty or otherwise in the courts of England and Wales in respect of proceedings against it in relation to the Parent Company Guarantee.

EMPLOYER'S WORKS INFORMATION SECTION

WI 2000

Employer's Work Specification and Drawings

WI 2000 Employer's work specifications and drawings

WI 2005 Employer's work specification

The *Employer*'s Work Specification is to be completed by the *Contractor* during PCF Stage 5. The draft requirements, current at the date of issue of this document, are included below for reference.

Specification

The Specification referred to in the Works Information is the 'Specification for Highway Works' current at the Contract Date, published by TSO (formerly HMSO) as Volume 1 of the Manual of Contract Documents for Highway Works, as modified and extended by the following:

(i) Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures;

(ii) Appendix 0/2: Contract-specific minor alterations to existing Clauses, Tables and Figures;

(iii) The Numbered Appendices listed in Appendix 0/3.

Insofar as any of the Numbered Appendices may conflict or be inconsistent with any provision of the Specification for Highway Works the Numbered Appendices shall always prevail.

Any reference in the Contract to a Clause number or Appendix shall be deemed to refer to the corresponding Substitute Clause number or Appendix listed in Appendix 0/1 or 0/2.

Where a Clause is altered any original Table/Figure referred to in the Clause shall apply unless the Table/ Figure is also altered. Where a Table/Figure is altered any reference in a Clause to the original Table/Figure shall apply to the altered Table/Figure.

Where a Clause in the Specification relates to Equipment, Plant or Materials which are not required for the *works* it shall be deemed not to apply.

Any Appendix referred to in the Specification which is not used shall be deemed not to apply.

WI 2010 Drawings

The Drawings are listed in Appendix 0/4 of the Specification.

Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures

List of Additional Clauses, Tables and Figures

Clause N°.	Title
1502.7AR	GENERAL REQUIREMENTS
1502.8AR	GENERAL REQUIREMENTS
1504.5AR	SITE RECORDS
1504.6AR	SITE RECORDS
1508.6AR	INSTALLATION OF CABINETS AND SIGNAL POSTS

List of Substitute Clauses, Tables and Figures

Clause N°.	**Title**

List of Cancelled Clauses, Tables and Figures

Clause N°.	**Title**
1709	**CONCRETE - SURFACE IMPREGNATION**

Additional Clauses, Tables and Figures

Clause No.	Title
1502.7 AR	**GENERAL REQUIREMENTS** **Commissioning** Commissioning The Contractor shall undertake the Contractor's roles and responsibilities as described in Appendix 15/1. The Contractor shall allow sufficient time in his programme (schedule) for the commissioning activities as described in Appendix 1/13.
1502.8 AR	**GENERAL REQUIREMENTS** **Technology Competency** The Contractor shall be prepared to demonstrate to the satisfaction of the Overseeing Organisation, in advance of commencing works, the competency of engineers to carry out the connection, testing and commissioning of each of the following: i) Surveillance Closed Circuit Television (CCTV); ii) Motorway Incident Detection and Automatic Signalling (MIDAS); iii) Ramp Metering iv) Communications Cabling Infrastructure; v) Power Cable Infrastructure; vi) Emergency Roadside Telephones (ERTs). The Contractor shall allow adequate time in his programme for the approval procedure including any additional engineers required for System Testing and Integration with the NWRCC.

Clause No.	Title
1504.5 AR	**SITE RECORDS** **Additional Drawing Information** In addition to those items listed in 1504.1, the Contractor shall record the following information on the drawings: i) Surveillance CCTV camera positions and types ii) MIDAS loops and outstation equipment iii) Ramp metering loops and outstation equipment iv) Message signs and Signals; v) Ambient Light Monitors vi) HADECS camera positions and types; vii) HADECS mock camera positions and types; viii) For each 600GP, 609 EI, 609 P and 609 LP cabinets; the destination of each circuit, location and details of any cable reduction joints; and ix) For every cabinet, post, detector loop, telephone, gantry structure and chamber, the exact marker post location where this differs from the marker post location shown on the design drawings; In addition to the above, the Contractor shall record all cable and electrical test results in accordance with the requirements of BS 7671 and HA specifications MCG1022, and MCH1540. The Contractor shall also record (in the BS 7671 test results), the fuse or MCB ratings for the 609 EI, 600GP, 609 P and 609LP cabinets.
1504.6 AR	**DECOMMISSION / REMOVAL RECORDS** The Contractor shall record details of all items of equipment and cables removed.

List of Substitute Clauses, Tables and Figures

Clause No.	**Title**

List of Cancelled Clauses, Tables and Figures

Clause No.	**Title**
1709	CONCRETE - SURFACE IMPREGNATION

Appendix 0/2: Contract-specific minor alterations to existing Clauses, Tables and Figures;

PART A: Volume 1 Specification

Clause No.	Alterations to be made
SERIES 1500	MOTORWAY COMMUNICATIONS
	CABLES
1506.1	Sub-clause (i), delete TR2150 and replace with TRH2583 Sub-clause (ii), delete TR2151 and replace with TRH2583 Sub-clause (iii), delete TR2152 and replace with TRH2583 Sub-clause (iv), delete TR2158 and replace with TRH2583 Sub-clause (v), delete TR2017 and replace with TRH2583 Sub-clause (vi), delete TR2160 and replace with TRH2583 Sub-clause (vii), start of line 1 insert 'Non-armoured or' Sub-clause (vii), delete TR2031 and replace with TRH2583 Sub-clause (viii), delete TR2029 and replace with TRH2583
1506.2	Sub-clause (i), delete TR2153 and replace with TRH2583 Sub-clause (ii), delete TR2161 and replace with TRH2583
	TERMINATION AND JOINTING OF POWER SUPPLY CABLES FOR COMMUNICATIONS
1516.3	Line 8, delete 'C chamber' and replace with 'A chamber' as shown on the Drawings.
	CABLES TESTING
1518.2	Line 2, delete 'TR 2150-2153' and replace with 'TRH2583' Line 3, delete 'TR 2158-2161' and replace with 'TRH2583'
1518.3	Line 2, delete '(for armoured copper cables), MCG 1055 (for armoured fibre cables), or MCG 1099 (for non-armoured cables), as appropriate'

Clause No.	Alterations to be made	Appendix
APPENDIX F		
1.	**British Standards**	
	At item “BS7671”: Delete “Sixteenth” and replace with “Seventeenth” **Add the following to Appendix F** BSEN 12966 Road Vertical Signs – Variable Message Traffic Signs	
5.	**Department of Transport; Department of Environment, Transport and the Regions; Scottish Development Department The Scottish Office; Welsh Office; and Department of the Environment for Northern Ireland Publications**	
	After item (ii), add: (iii) DfT and HA Branding Guidelines for Contractors (iv) HA Visual Identity - Requirements for our Suppliers	

Clause No.	Alterations to be made	Appendix
APPENDIX F		
7.	**HIGHWAYS ENGLAND (TRAFFIC SYSTEMS AND SIGNING) PUBLICATIONS** (www.tssplansregistry.org)	
	Delete items: (ii) to (xiii) and (xvi) to (xvii)	
	After item (xx), add:	
	(xxi) DMRB Design Manual for Roads and Bridges (Including Interim Advice Notes) (xxii) MCE 0107 NMCS2 Advanced Motorway Indicator (AMI) Equipment Requirements (xxiii) MCE 0110 NMCS2 Ambient Light Monitor (ALM) Equipment Requirements (xxiv) MCE 1126 NMCS Internet Interface Specification (xxv) MCE 1137 NMCS IP Address Plug Type 9300 Hardware and Software Requirements (xxvi) MCE 1175 Plinth 610 (xxvii) MCE 1229 Specification for Secure Type 600 Cabinet (xxviii) MCE 2214 Motorway Signal Mark 4 – Requirement for Signal Equipment (Display and Communications Electronics) (xxix) MCE 2239 Second Generation CCTV Television Base Station Specification (xxx) MCE 2240 Second Generation CCTV Centre-to-Field Communication Specification (xxxi) MCE 2241 Second Generation CCTV Television Slave Station Specification (xxxii) MCE 2245 CCTV Outstation, including use on All-Lane Running sections Requirements Specification (xxxiii) MCE 2536 Specification for CCTV Outstation Camera Cable & Connector (xxxiv) MCG 1069 NMCS 2 Test Strategy (xxxv) MCG 1072 Signal Site Equipment Acceptance Test Specification (xxxvi) MCG 1080 NMCS 2 Data System Test	15/1

		Specification	
	(xxxvii)	MCG 1089 NMCS2 MIDAS Outstation Acceptance Test Specification	
	(xxxviii)	MCG 1092 NMCS2 MIDAS System Acceptance Test Specification	
	(xxxix)	MCG 1101 Test Specification for Second Generation CCTV Television Slave Station	
	(xl)	MCG 1110 Second Generation CCTV - System Performance and Testing	
	(xli)	MCG 1101 Test Specification for Second Generation CCTV Television Slave Station	
	(xlii)	MCG 1111 Testing the Picture Quality Levels of the NRTS Switched Video Network	
	(xliii)	MCG 1202 NMCS Electrical Power Supply Tests for Electronic Motorway Signals and Message Signs	
	(xliv)	MCH 1349 Maintenance & Operational Requirements for New Systems & Equipment	
	(xlv)	MCH 1382 Installation Tests for Roadside Camera Sites Guidance	
	(xlvi)	MCH 1399 NMCS Maintenance Instruction. Notification of Change of Equipment. Quantities for Maintenance	
	(xlvii)	MCH 1540 Specification for the Installation of detector Loops on Motorways and All-Purpose Trunk Roads	
	(xlviii)	MCH 1652 Communications Records Drawings Computer Aided Drawings Standard	15/1
	(xlix)	MCH 1737 Procedure for producing and updating NMCS Transmission Maintenance Drawings (formerly titled 'CAD System')	
	(l)	MCH 1755 NMCS2 MIDAS Outstation Site Acceptance Procedures	
	(li)	MCH 1780 NMCS2 Logging – Formats and Guideline	
	(lii)	MCH 1959 Second Generation CCTV Interface of the CCTV System to the National Roads Telecommunications Contract	
	(liii)	MCH 1960 Second Generation CCTV Management Overview	
	(liv)	MCH 1980 Process for Commissioning and Handover of Technology Systems	

	(lv)	MCH 1983 Emergency Roadside Telephone Type 354 Implementation Guide	
	(lvi)	MCH 2471 Ramp Metering Installation	
	(lvii)	MCH 2472 Ramp Metering Configuration Setup and management Guidelines	
	(lviii)	MCH 2473 Ramp Metering Calibration Guidelines	
	(lix)	MCH 2489 Meteorological Sensor Installation	
	(lx)	TR 1100 General Specification for Motorway Signs Signalling and Communications Equipment	
	(lxi)	TR1249 Distributor Type 901	
	(lxii)	TR 2130 Environmental Testing for Motorway Communications Equipment	
	(lxiii)	TR 2033 Weatherproof Cable Assemblies	
	(lxiv)	TR 2062 Data Link Connection Boxes Type 9902, 9903 and 9904	
Clause No.	**Alterations to be made**		
	(lxv)	TR 2482 Specification for Highways Agency Digital Enforcement and Compliance systems (HADECS)	
	(lxvi)	TR 2603 Technical Specification for Remote Controlled Temporary Traffic Management Signs for use on the Highways Agency Strategic Road Network	
	(lxvii)	TRH 2583 General Regulation Highways Agency Cables	
	(lxviii)	Information Statement : Highways Agency Digital Enforcement and Compliance System (HADECS) Version 3 (Side Fire Operation) Scheme Guidance	

Clause No.	Alterations to be made	
APPENDIX F	**NATIONAL ROADS TELECOMMUNICATION SERVICE (NRTS) DOCUMENTATION**	
	(i) "NRTS Special Requirements: HA Contractors Obligations (GC-PS037)" (document reference GYS/RGD/PRS/0048)	15/1 and 15/2
	(ii) GYS/RGD/TSP/0056 - NRTS – Service Solution Specification: Passive Network Elements (PS-DS200-01)	
	(iii) GYS/RGD/TSP/0080 - NRTS – Service Solution Specification: Civil Roadside Infrastructure and Cabling (PS-DS200-03)	
	(iv) GYS/RGD/TSP/0079 - NRTS – Service Solution Specification: Service Categories 1 to 4, Passive Network Elements (PS-DS200-02)	
	(v) GYS/RGD/TSP/0081 - NRTS: Service Solution Specification - Transmission Stations & Transmission Cabinets (PS-DS200-04)	
	(vi) GYS/RGD/TSP/0083 - NRTS - Service Solution Specification: Regrades (PS-DS200-06)	
	(vii) GYS/RGD/TSP/0082 - NRTS - Service Solution Specification: Cross-carriageway Ducts & Ducts Through Structures (PS-DS200-05)	
	(viii) GYS/RGD/PRP/0012 - NRTS – Duct Space Management (PS DS017)	
	(ix) GYS/RGD/USG/0038 – NRTS – A Guide to Working with Genesys	
	(x) GYS/RGD/TSP/0250 – NRTS – Cross Gantry Ducting Design Proving Test Plan	
	(xi) GYS/xxxxxx – NRTS – Compatibility Testing Procedure	
	Documents (i) to (viii) are available from: NRTS Co GeneSYS 9 Ridgeway Quinton B32 1AF Telephone: 0845 603 2239 Fax: 0121 506 6102 Email: genesys.noc@fluor.com	

Appendix 0/3 List of the Numbered Appendices referred to in the Specification and included in the Contract.

Appendix 0/3 shall be comprised of two lists, A and B of Numbered Appendices as follows:

List 'A' is a complete list of the Numbered Appendices referred to in the Specification for Highways Works with those not adopted marked 'Not Used'. Those identified by the letter T or C shall be completed by the Tenderer or Contractor respectively.

List 'B' gives the list of Contract-specific Numbered Appendices devised for the Contract.

Guide to types of Numbered Appendices – who compiles/completes

Symbol

(Co/C) Compiler partially compiles and Contractor completes and returns to Overseeing Organisation.

(Co/T) Compiler partially compiles and Tenderer completes and returns with Tender

(C) Contractor completes and returns to Overseeing Organisation

(P) This indicates the Appendix is a national pro-forma and format must not be altered.

N.U. This is an abbreviation of Not Used

EMPLOYER'S WORKS INFORMATION SECTION

Annex A

Form of Parent Company Guarantee

Annex A **Form of Parent Company Guarantee**

DATED [●]

Highways England Company Ltd
as Employer

[●]
as Guarantor

PARENT COMPANY GUARANTEE

relating to a project at
[●]

DATED [●]

PARTIES {DoV3}

(1) **HIGHWAYS ENGLAND COMPANY LIMITED** (company no 09346363) whose registered office is at Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ (the "*Employer*");

(2) [●] (company no [●]) whose registered office is at [●] (the "**Guarantor**")

BACKGROUND

By the Contract, the Employer has employed the Contractor to carry out and complete the Works.

The Guarantor is the ultimate parent company of the Contractor.

The Guarantor has agreed to guarantee the due performance by the Contractor of his obligations under the Contract in the manner set out in this deed.

OPERATIVE PROVISIONS

1 Definitions and interpretation

1.1 Unless the contrary intention appears, the following definitions apply:

"**Contract**" means the contract dated [●] between the Employer (1) and the Contractor (2) whereby the Contractor has undertaken to carry out and complete the Works.

"**Contractor**" means [●] (company no [●]) whose registered office is at [●].

"**Insolvency Event**" means the Contractor being unable to pay its debts (as defined by Sections 123(1) and 268(1) of the Insolvency Act 1986) or any corporate action, legal proceedings or other procedure or step is taken in relation to:

(a) the suspension of payments, a moratorium of any indebtedness, winding-up, dissolution, administration or reorganisation (by way of voluntary arrangement, scheme of arrangement or otherwise) of the Contractor other than a solvent liquidation or reorganisation of the Contractor;

(b) a composition, assignment or arrangement with any creditor of the Contractor;

(c) the appointment of a liquidator, receiver, administrator, administrative receiver, compulsory manager or other similar officer in respect of the Contractor or any of its assets; or

(d) enforcement of any security over any assets of the Contractor,

or any analogous procedure or step is taken in any jurisdiction.

"**Works**" means the [design and] construction of [●] as more particularly described in the Contract.

1.2 The clause headings in this deed are for the convenience of the parties only and do not affect its interpretation.

1.3 Words importing the singular meaning shall include, where the context so admits, the plural meaning and vice versa.

1.4 Words denoting the masculine gender shall include the feminine and neuter genders and words denoting natural persons shall include corporations and firms and all such words shall be construed interchangeably in that manner.

1.5 Where the context so admits, references in this deed to a clause are to a clause of this deed.

1.6 References in this deed to any statute or statutory instrument shall include and refer to any statutory amendment or re-enactment thereof from time to time and for the time being in force.

2 Guarantee

2.1 In consideration of the Employer agreeing to enter into the Contract with the Contractor, the Guarantor irrevocably and unconditionally guarantees and undertakes to the Employer that:

a) the Contractor will perform and observe all his obligations under the Contract on the days and at the times and in the manner provided in the Contract; and

b) in the event of any breach of such obligations by the Contractor, the Guarantor shall procure that the Contractor makes good the breach or shall otherwise cause it to be made good and shall indemnify and hold harmless the Employer against any loss, damage, demands, charges, payments, liability, proceedings, claims, costs and expenses suffered or incurred by the Employer arising from or in connection with it.

2.2 The Guarantor shall also indemnify and hold harmless the Employer against:

a) any and all costs, losses and expenses (including legal expenses) which may be suffered or incurred by the Employer in seeking to enforce and enforcing (i) this Guarantee and/or (ii) any judgment or order obtained in respect of this Guarantee; and

b) any loss or liability suffered or incurred by the Employer if any of the obligations of the Contractor under the Contract is or becomes illegal, invalid or unenforceable for whatsoever reason as if such obligations were not illegal, invalid or unenforceable.

2.3 Any limitation or defence which would have been available to the Contractor in an action under the Contract shall likewise be available to the Guarantor in a corresponding action under this deed, provided that nothing in this clause shall:

a) prejudice or affect any liability of the Guarantor under clause 2.2; nor

b) allow the Guarantor to avoid liability if either of the events specified in clause 5 occurs. {DoV3}

3 Guarantor's liability

3.1 The obligations of the Guarantor under this deed shall be in addition to and shall be independent of any other security which the Employer may at any

time hold in respect of the Contractor's obligations under the Contract and may be enforced against the Guarantor without first having recourse to any such security.

3.2 The obligations of the Guarantor under this deed shall be in addition to and shall not be in substitution for any rights or remedies that the Employer may have against the Contractor under the Contract or at law.

3.3 The liability of the Guarantor under this deed shall in no way be discharged, lessened or affected by:

a) an Insolvency Event;

b) any change in the constitution, status, function, control or ownership of the Contractor or any legal limitation, disability or incapacity relating to the Contractor or any other person;

c) the Contract or any of the provisions of the Contract being or becoming illegal, invalid, void, voidable or unenforceable;

d) any time given, waiver, forbearance, compromise or other indulgence shown by the Employer to the Contractor;

e) the assertion or failure to assert or delay in asserting any rights or remedies of the Employer or the pursuit of any right or remedy of the Employer;

f) the giving by the Contractor of any security or the release, modification or exchange of any such security or the liability of any person; or

g) any other act, event, omission or circumstance which but for this provision might operate to discharge, lessen or otherwise affect the liability of the Guarantor,

in each case with or without notice to, or the consent of, the Guarantor and the Guarantor unconditionally and irrevocably waives any requirement for notice of, or consent to such matters.

4 Variations to the Contract

The Guarantor authorises the Contractor and the Employer to make any addition or variation to the Contract, the due and punctual performance of which shall likewise be guaranteed by the Guarantor in accordance with the terms of this deed. The liability of the Guarantor under this deed shall in no way be discharged or lessened by any such addition or variation.

5 Liquidation of Contractor/termination of contract

The Guarantor covenants with the Employer that:

5.1 upon the occurrence of an Insolvency Event, if a liquidator is appointed and the liquidator disclaims the Contract; or

5.2 if the Contractor's employment under the Contract is determined for any reason,

the liability of the Guarantor under this deed shall remain in full force and effect.

6 Waiver

The Guarantor waives any right to require the Employer to pursue any remedy (whether under the Contract or otherwise) which it may have against the Contractor before proceeding against the Guarantor under this deed.

7 Rights of Guarantor against Contractor

7.1 The Guarantor shall not by any means or on any ground seek to recover from the Contractor (whether by instituting or threatening proceedings or by way of set-off or counterclaim or otherwise) or otherwise to prove in competition with the Employer in respect of any payment made by the Guarantor under this deed nor be entitled in competition with the Employer to claim or have the benefit of any security which the Employer holds for any money or liability owed by the Contractor to the Employer. If the Guarantor shall receive any monies from the Contractor in respect of any payment made by the Guarantor under this deed, the Guarantor shall hold such monies in trust for the Employer for so long as the Guarantor shall remain liable or contingently liable under this deed.

7.2 Any decision of any adjudicator, expert, arbitral tribunal and/or any court in respect of or in connection with the Contract or any settlement or arrangement made between the Employer and the Contractor shall be binding on the Guarantor.

8 Continuing guarantee

The terms of this deed shall be a continuing guarantee and shall remain in full force and effect until each and every part of every obligation of the Contractor under the Contract shall have been performed and observed and until each and every liability of the Contractor under the Contract shall have been satisfied in full.

9 Third party rights

Unless the right of enforcement is expressly granted, it is not intended that any third party should have the right to enforce any provision of this deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

10 Notices

Any notice or other communication required under this deed shall be given in writing and shall be deemed to have been properly given if compliance is made with section 196 of the Law of Property Act 1925 (as amended by the Recorded Delivery Service Act 1962 and the Postal Services Act 2000).

11 Governing law

The application and interpretation of this deed shall in all respects be governed by English law and any dispute or difference arising under it shall be subject to the exclusive jurisdiction of the courts of England and Wales save that any decision, judgment or award of such courts may be enforced in the courts of any jurisdiction.

This Deed has been executed as a deed and delivered on the date stated at the beginning of this Deed.

EXECUTION PAGE

Executed as a deed by **[GUARANTOR]**)
in the presence of:)

Director

Director/Secretary

OR

Executed as a deed by **[GUARANTOR]** acting by [*name of director*] in the presence of [*name of witness*]: **)**
)

Director

Name of witness:
Signature of witness:
Address:

Occupation:

EMPLOYER'S WORKS INFORMATION SECTION

Annex B

Employer's Personnel Security Procedures

Annex B Employer's Personnel Security Procedures

1. Mandatory Obligations

1.1 The *Employer* is required to adopt the Personnel Security requirements and management arrangements set down in Security Policy No 3: Personnel Security of HMG Security Policy Framework v.2.0 May 09 issued by the Cabinet Office as amended from time to time (the "Security Policy Framework").

1.2 The Security Policy Framework is available to be downloaded from the Cabinet Office Website www.cabinetoffice.gov.uk. The *Contractor* familiarises himself with the objectives and principles embodied within the Security Policy Framework, in addition to the mandatory obligations abstracted from the Security Policy Framework and set down in this Annex.

1.3 The *Contractor* ensures that the appropriate level of Personnel Security is obtained and maintained for all Staff in accordance with the Security Policy Framework.

1.4 The *Project Manager* notifies the *Contractor* of any revisions to the Personnel Security requirements arising as a consequence of subsequent amendments to the Security Policy Framework.

1.5 The Cabinet Office Efficiency and Reform Group has introduced security requirements in relation to site admittance, passes and photographs. These requirements are set out in Part 3 of this annex.

2. Security Checks – Minimum Requirement

2.1 The Baseline Personnel Security Standard (BPSS) forms the minimum security check requirement for all Staff whose duties include
working in the *Employer's* premises, including offices, Regional Control Centres (RCC), the National Traffic Control Centre (NTCC) and any outstations owned and/or operated by the *Employer*,
usage of the *Employer's* Information Systems or
working unsupervised in any other capacity.

- The *Project Manager* may notify the *Contractor* of a modification to the categories of Staff requiring BPSS security checks at any time.

2.2 The BPSS is available to be downloaded from the Cabinet Office Website www.cabinetoffice.gov.uk

2.3 Procedural and other details for ensuring compliance with the BPSS are set down in Part One below.

3. Security Checks – Additional Vetting Requirement

3.1 Where Staff require unrestricted access to the *Project Manager* notifies the *Contractor* of the appropriate level of National Security Vetting (NSV) to be carried out.

3.2 Procedural and other details for ensuring compliance with NSV are set down in Part Two below.

PART ONE – BPSS Compliance

4. Procedures

4.1 The *Contractor* undertakes security checks to ensure the confidentiality, integrity and availability of the *Employer's* asset.

4.2 The recruitment controls of the BPSS are required to have been carried out for all Staff to whom paragraph 2.1 applies prior to their employment on this contract. The recruitment control process is completed satisfactorily before an individual
is issued with a security pass giving unrestricted access to the *Employer's* premises,
potentially has access to the *Employer's* sensitive, possibly protectively-marked, information or
is given access to the *Employer's* IT network.

4.3 The *Contractor* takes all necessary measures to confirm that any previous security checking carried out on existing Staff meets the requirements of the BPSS, either in full or by exception using the risk management assessment process guidance contained in the Security Policy Framework.

4.4 The *Contractor* should note that, for existing Staff with more than 3 years continuous employment and who have not had any access passes or permits revoked in that time, the requirements for references in the BPSS security check can be deemed to be discharged by a letter from a Director or Head of Personnel of the *Contractor* certifying the same.

4.5 The *Contractor* rectifies any unacceptable gaps identified between the BPSS and existing security checking in accordance with the requirements of the BPSS.

4.6 Any new Staff to whom paragraph 2.1 applies are assessed strictly in accordance with the requirements of the BPSS.

4.7 The *Contractor* keeps full and auditable records of all security checks carried out on Staff and makes such records available to the *Employer* or its appointed representatives for audit purposes at all reasonable times.

4.8 If:

- the Employer discovers any non-compliance with the requirements of the BPSS from the audit process;
- the *Contractor* fails to keep full records of security checks carried out on Staff; or
- the *Contractor* fails to make such records available on reasonable

request;

the *Project Manager* may

- invoke individual withdrawal of permits or passes to Staff;
- invoke systematic withdrawal of permits or passes to Staff; or
- require that an independent audit of the *Contractor* 's BPSS security check procedure is undertaken at the expense of the *Contractor*.

- The *Contractor* takes the appropriate action to immediately address any non-compliance with the BPSS notified to it by the *Project Manager*.

4.9 It should be noted that the BPSS does not constitute a formal security clearance. It is designed to provide a level of assurance as to the trustworthiness, integrity and reliability of the individual involved.

5. Security check process for BPSS

5.1 The security check process of the BPSS follows the guidance provided in the BPSS.

5.2 The BPSS comprises verification of four main elements

- identity;
- nationality and immigration status (including an entitlement to undertake the work in question);
- employment history (past 3 years); and
- criminal record (unspent convictions only).

- Additionally, prospective Staff are required to give a reasonable account of any significant periods (6 months or more in the past 3 years) of time spent abroad.

5.3 The specific requirements for verification of each of the four main elements are set down in Part II, The Verification Process of the BPSS. An outline description of the core requirements is included below but does not relieve the *Contractor* from his obligation to comply with all the requirements of the BPSS.

5.4 Information collected at each stage of the process is reviewed, assessed and recorded on the following BPSS Verification Record (Annex B of the BPSS).

Verification Record
Nationality and Immigration Status Form
UKBA Immigration Employment Enquiry Form
Employment History Report Form
HMRC Record Check Form
Criminal Record Declaration

6. Verification of Identity – Outline Requirements

6.1 Identity may be verified by physically checking a range of appropriate documentation (e.g. passport or other photo ID together with utility bills, bank statements etc.) or by means of a commercially available ID verification service.

6.2 Only original documents should be used for identification purposes, copies are not appropriate. Electronic signatures should be verified by cross checking to a specimen signature provided by the individual.

6.3 There is no definitive list of identifying documents. The *Contractor* should note that not all documents listed in the BPSS are of equal value. The objective is a document that is issued by a trustworthy and reliable source, is difficult to forge, has been dated and is current, contains the owner's name, photograph and signature and itself requires some evidence of identity before being issued (e.g. passport or ID card).

6.4 National Insurance numbers (NINOs) can be obtained fraudulently and cannot be relied on as a sole means of establishing identity or right to work. Temporary numbers beginning with TN or ending in a letter from E to Z inclusive are not acceptable.

6.5 Where verification of identity is not straightforward but a decision is nevertheless taken to employ an individual, the *Contractor* notifies the *Project Manager* and records the matter on the Risk Register.

7. Nationality and Immigration Status (including an entitlement to undertake the work in question) – Outline Requirements

7.1 Nationality and Immigration Status may be verified by physically checking appropriate documentation or, in exceptional circumstances only, by means of an independent check of UK Border Agency (UKBA) records.

7.2 The *Contractor* takes the necessary steps to ensure that an individual has the right to remain in the United Kingdom and undertake the work in question.

7.3 Checks need to be applied evenly and the *Contractor* needs to be aware of his obligations under the Race Relations Act 1976.

8. Employment history (past 3 years) – Outline Requirements

8.1 Employment history may be verified by checking with previous employers, by following up references or by means of a commercially available CV checking service or, in exceptional circumstances only, by means of an independent check of HMRC records.

8.2 To ensure that prospective employees are not concealing associations or gaps, the *Contractor* as a minimum verifies the individual's recent (past 3 years) employment or academic history.

8.3 Where there are unresolved gaps or doubts remain about an individual's employment history, an independent check of HMRC records may be made.

8.4 Every effort should be made to check that the individual has held the previous employment history claimed. Any gaps in the past 3 years employment history should be investigated.

9. Criminal record (unspent convictions only) – Outline Requirements

9.1 The *Contractor* should note that the requirement to verify "unspent" convictions does not apply when the BPSS is being carried out as part of the groundwork for NSV, where a full check of criminal records ("spent" and "unspent") will be made as part of that process.

9.2 Under the terms of the Rehabilitation of Offenders Act 1974, it is reasonable for employers to ask individuals for details of any "unspent" criminal convictions. The Act states that if an offender remains free of further convictions for a specified period (the "rehabilitation period"), the conviction becomes spent. Where rehabilitation has taken place, the individual must be treated as if the offence had never been committed.

9.3 The *Contractor* 's attention is drawn to the Basic Disclosure Certificate check option available from Disclosure Scotland.

9.4 Where "unspent" convictions have been disclosed, the *Contractor* carries out a risk assessment, which may include the need for legal advice, before proceeding.

10. Approval for employment

10.1 General guidance and requirements post BPSS verification are contained in Part IV – Post Verification Process of the BPSS. An outline description of the core requirements is included below but does not relieve the *Contractor* from his obligation to comply with all the requirements of the BPSS.

10.2 Subject to paragraph 4.10.3 and unless advised to the contrary by the *Project Manager,* all Staff for whom a completed BPSS Verification Record has been submitted may be treated by the *Contractor* as suitable to undertake the duties referred to in paragraph 2.1.

10.3 The *Contractor* should note that the *Employer* will ordinarily require a period of 3 working days from receipt of a fully completed BPSS security check for its internal approvals process and prior to the subsequent issue of access permits and passes. The *Project Manager* may exclude from the Area Network any individual for whom a BPSS Verification Record is not supplied, is incomplete or is otherwise unsatisfactory.

10.4 BPSS Verification Records with a sealed Criminal Record Declaration will be assessed separately on a case by case basis by the *Project Manager*. The *Project Manager* advises the *Contractor* if the individual has been approved as suitable to undertake all or any of the duties referred to in paragraph 2.1.

11. Incomplete or unsatisfactory BPSS Verification Records

11.1 Where a BPSS is incomplete or is otherwise unsatisfactory, the *Project Manager* advises the *Contractor* of the deficiencies and the actions needed to correct them.

12. Renewal of the BPSS

12.1 Under most circumstances, renewal of the BPSS is not required.

12.2 The *Contractor* rechecks the immigration status of migrant Staff before their current right to remain expires or within 12 months of the previous check, whichever is the sooner. These checks are repeated until the employee is able to demonstrate an indefinite right to remain in the United Kingdom or until the employment comes to an end.

12.3 The *Project Manager* instructs the *Contractor* to carry out additional security checks on any Staff required to operate in or on a List X site. An instruction to carry out additional security checks is a change to the Service Information.

12.4 If an employee, who has previously been subject of a BPSS security check, leaves the employment of the *Contractor* and is subsequently re-employed by the *Contractor* within twelve months, the original security check authorisation may be reinstated. The *Employer* may require additional evidence before reinstating the original security check .authorisation. In all other cases of re-employment, the full BPSS security check must be carried out.

13. Ongoing personnel security management ("aftercare")

13.1 The *Contractor* monitors, manages and supports the required behaviours of Staff who are approved for work on this contract and reports to the *Project Manager* immediately if the continuing suitability of an employee is in doubt.

13.2 Where the *Contractor* reports a case of doubt or the *Project Manager* considers that the actions of any of the Staff do not conform to the required behaviours, the *Project Manager* may instruct the *Contractor* to review the performance of the individual concerned. The *Contractor* takes appropriate action in consequence of the review, which may include

- performance improvement,
- temporary suspension of permits and passes or
- removal of the individual in accordance with core clause 24.3.

14. Retention of documentation

14.1 The documentation associated with a BPSS security check is retained by the *Contractor* until the expiry of the Contract Period and for a period of twelve months after the individual has ceased to be employed on this contract.

14.2 The *Contractor* destroys, in an appropriate secure manner, all electronic and paper copies of documentation which he is no longer required to retain.

PART TWO – National security Vetting (NSV)

15. Procedures

15.1 In all cases, verification of identity and the individual's entitlement to undertake the work in question must be carried out before embarking on NSV.

15.2 Other than in exceptional circumstances, NSV must not be undertaken before the BPSS's full controls have been applied. The *Contractor* agrees with the *Project Manager*, on a case by case basis, any exceptional cases where NSV and BPSS procedures are required to be carried out in parallel.

15.3 The *Project Manager* determines if any Staff need to undertake NSV in addition to the BPSS security check.

15.4 If the *Project Manager* considers that NSV is required, the *Employer* identifies, manages and undertakes the necessary vetting at the *Employer's* expense.

15.5 Where the *Project Manager* determines that NSV is required, the approvals process set out in paragraph 4.10 does not apply, unless the *Project Manager* instructs otherwise. Access permits and passes are ordinarily only issued on satisfactory completion of NSV.

PART THREE – CABINET OFFICE EFFICIENCY AND REFORM GROUP REQUIREMENTS

Site Admittance

16.1 The *Contractor* submits to the *Project Manager* details of people who are to be employed by him and his Subcontractors with the *works*. The details include a list of names and addresses, the capacities in which employed, and other information required by the *Project Manager*.

16.2 The *Project Manager* may instruct the *Contractor* to take measures to prevent unauthorised persons being admitted on to the Site. The instruction is a compensation event if the measures are additional to those required by the Works Information.

Passes

16.3 Employees of the *Contractor* and his Subcontractors are to carry an *Employer's* pass whilst they are on the parts of the Site stated in the Contract Data.

16.4 The *Contractor* submits to the *Project Manager* for acceptance a list of the names of the people for whom passes are required. The *Project Manager* issues the passes to the *Contractor*. Each pass is returned to the *Project Manager* when the employee no longer requires access to that part of the Site or after the *Project Manager* has given notice that the employee is not to be admitted to the Site.

Photographs

16.5 The *Contractor* does not take photographs of the Site or the *works* or any part of them unless he has obtained the acceptance of the *Project Manager*.

16.6 The *Contractor* takes the measures needed to prevent his and his Subcontractors' people taking, publishing or otherwise circulating such photographs.

EMPLOYER'S WORKS INFORMATION SECTION

Annex C

Taking Over Certificate

Annex C Taking Over Certificate

Scheme: …….

Part of the *works*: ……..
[Describe the part or state "the whole of the works"]

Contractor's Statement

We certify that

- we have done all the work which the Works Information states is to be done before Completion of the part of the *works* described above and
- we have corrected notified Defects which would have prevented the *Employer* from using the part of the *works* and others from doing their work.

Signed: ……
Contractor 's Director

Name: …….

Date: ……

Operating Authority's Acceptance

I accept that this part of the *works* is ready for use by the *Employer*/ ……...

Signed: ……..
for Operating Authority

Name: ……

Date: ……...

Project Manager's Certificate

The date upon which the *Employer* took over the part of the *works* described above is ……....

Signed: ……..
Project Manager

Name: ……

Date: ……...

EMPLOYER'S WORKS INFORMATION SECTION

Annex D

Certificates

Annex D Design & Check Certificate

Scheme: …….

Part of the *works*: ……..
[Describe the part or state "the whole of the works"]

***Contractor*'s Statement**

We certify that the Design Data listed below:

- Is prepared using reasonable professional skill and care
- Complies with the relevant statutory regulations and directives
- Complies with the Works Information, the Development Consent Order(s) and the Environmental Statement

In our opinion the Design Data where used as part of the Temporary Works will have no adverse effect on the Permanent Works.

Where required a Safety Audit for Stage *[2] *[3] is attached.

List of Design Data

[Insert a list of the Design Data covered by this certificate]

Signed: ……..	**Signed: ……..**
***Contractor*'s Director**	**Certifying Engineer**
Name: ……	**Name: ……**
Date: ……...	**Date: ……...**

Project Manager's Certificate

This certificate is:

- accepted*
- accepted with comments*
- not accepted for the reasons that follow*

* Delete as appropriate

Signed: ……..
Project Manager

Name: ……

Date: ……...

[Attach comments or reasons as required]

EMPLOYER'S WORKS INFORMATION SECTION

Annex E

Continual Improvement

Annex E Continual improvement

The *Contractor* is required to achieve the following requirements:

Purpose and Scope

Continual improvement does not relate to improvements necessary for the *Contractor* to achieve contract compliance, although it is recognised that a similar process may be used to correct any such non-compliance.

Continual improvement comprises four parts:

i. Outcome requirements
ii. Strategic objectives
iii. The method (tools and techniques)
iv. Performance measurement

i. Outcome Requirements

The primary outcome from using continual improvement is the generation and realisation of reductions in the cost of providing the Works for the benefit of both the *Employer* and the *Contractor.*

An additional outcome is the improvement of quality in of the *works*, at no additional cost to the *Employer*.

ii. Strategic Objectives

The following strategic objectives in support of the above outcome are to be delivered by the *Contractor*:

- Engagement of the *Contractor's* executive leadership to ensure these continual improvement requirements are fulfilled
- Proactive management and engagement of the *Contractor's* supply chain in support of reductions in the cost of Providing the Works enabled by a reduction in the cost to the *Employer*
- A systematic and prioritised approach to the improvement of all of the Processes and Sub-Processes included in the *Contractor's* quality plan
- The identification of improvement opportunities that primarily have the potential to generate reductions in the cost of Providing the Works
- Realisation of the reduction in the cost of Providing the Works by a measurable reduction in the Price for Work Done to Date
- Realisation of other benefits that result in an improvement to the quality of the *works*, at no additional cost to the *Employer*

iii. The Method (tools and techniques)

The most effective tool in ensuring project milestones are achieved is collaborative planning and this is mandated on all schemes with Major Projects.

The *Contractor* is required to execute the following method, although it is accepted that it may adopt, at its own discretion, additional methods to deliver the above outcome requirements and strategic objectives.

Lean is a method of delivering the above outcome requirements and strategic objectives, and is a way of doing more with less. It produces what a customer wants, when it is required, with a minimum of waste, and to a high level quality. Lean works through a relentless elimination of waste and reduction of variation.

The *Contractor* uses Lean tools to systematically address, in a planned sequence, the Processes and Sub-Processes in its Quality Plan in order to identify customer requirements, establish and optimise the execution of value adding activity, identify and minimise non-value adding activity, and eliminate waste.

The execution of continual improvement forms part of the role and accountability of the executive process owner. Highways England will measure Lean maturity through its Simplified Lean Capability Assessment.

The *Contractor* shall:

DEPLOY A LEAN STRATEGY

- Adopt Lean principles as part of formal strategic plans for the *Contractor's* business
- Employ formal Processes for determining customer/client value

ENSURE LEAN LEADERSHIP

- Ensure senior leaders and management within the *Contractor's* organisation enthusiastically embrace the concept of Lean and support a transformation to a Lean culture in the organisation.

DELIVER CUSTOMER VALUE

- Ensure value streams of all stakeholder processes have been mapped and value adding activities are identified and optimised
- Ensure critical interactions and interdependences are identified
- Ensure opportunities for minimising non value adding activity and eliminating waste are identified and realised

ADOPT LEAN STRUCTURE AND BEHAVIOUR

- Revise policies and procedures to promote, encourage and support Lean behaviour
- Delegate decision making to lowest practical level, with appropriate training
- Encourage prudent risk taking
- Implement a comprehensive programme of innovation/improvement initiatives and measure their impact

ENSURE PROCESS FLOW

- Design Processes along value streams encouraging customer/client

pull with minimum waste

- Ensure continuous flow through all value streams
- Ensure demand is aligned to customer

CREATE STANDARD WORK PRACTICES

- Standardise Processes across sites and departments
- Standardise tools and systems used throughout the *Contractor's* organisation

ENSURE PROCESS CONTROL AND QUALITY

- Reduce Process variation throughout the *Contractor* organisation
- Analyse the root cause of defects and nonconformities, implement corrective action and update Processes with lessons learned
- Ensure all Processes include mistake proofing with preventative measures maintaining optimal Process conditions
- Delegate authority for quality to lowest practical level minimising secondary inspection or review

ENSURE PLANNING DESIGN AND CONSTRUCTION TAKES ACCOUNT OF CUSTOMER/CLIENT REQUIREMENT

- Continually evaluate customer/client needs with formal feedback
- Ensure customer/client is represented on integrated product/project teams
- Integrate planning/design/construction teams
- Identify and quantify priorities of downstream stakeholders
- Ensure services to sites designed to be in line with demand usage to minimise inventory

MAINTAIN EFFECTIVE SUPPORTING INFRASTRUCTURE

- Ensure financial/measurement system supports Lean transformation and is readily accessible to stakeholders
- Ensure information systems are easily accessible and compatible with stakeholder communications and analysis needs
- Ensure personnel practices make suitable skills available
- Ensure education and training programmes support the needs of the enterprise transformation plan
- Make resources and support available to employees to contribute to Lean improvement
- Develop supply chain that can be effectively managed
- Define develop and integrate supplier network to ensure efficient creation of value for enterprise stakeholders
- Provide trained Lean Practitioner resource to deliver lean activity at

organizational and project level

In carrying out the above process the *Contractor* shall assist and enable its supply chain in the adoption of Lean methodologies and approaches, and engaging in lean improvement projects.

iv. Performance Measurement

The *Contractor* shall record and measure the benefits realised from the execution of continual improvement process in accordance with the *Employer*'s Lean Benefits Realisation Guide.

The *Contractor* shall:

- Capture and record the reductions in cost
- Capture and record any other benefits
- Ensure results are recorded showing general details about the improvement, planned/targeted benefits, and actual/realised benefits with supporting calculations
- Review and report on performance on a monthly basis
- Prepares a Knowledge Transfer Pack and Benefits Realisation Capture form.

The *Contractor* shall adjust its delivery of continual improvement process based on lessons learned from the measurement of its performance. The Contractor measures their adoption of a continual improvement culture using the Employer's Lean Maturity Assessment Toolkit at organisational and Project Level.

EMPLOYER'S WORKS INFORMATION SECTION

Annex F

Inclusion Action Plan

Annex F Inclusion Action Plan

Guidance for Suppliers

Highways England believes that in order to achieve its vision of being **the world's leading road operator** it must better understand the different needs of our large and diverse customer base and factor these needs in to the design and delivery of service. We also believe that to achieve outstanding performance we must attract, recruit, develop and retain talented people from all groups within the active labour force and then work to ensure an inclusive environment in which all can thrive. Highways England expects our suppliers to share the same values in terms of Diversity and Equality as well as supporting our wider vision.

The Inclusion Action Plan covers the key areas of Equality and Diversity, and Skills/Apprenticeships.

The Action Plan should be accompanied by some contextual information including reference to your key relevant policies. The Action Plan should relate specifically to the [contract/project] you are contracted for. Key relevant policy documents such as the equality and diversity policy (or equivalent) can be appended.

All relevant information for the submission is to be included and the total Action Plan should not exceed 20 pages with the exception of any appendices. Any appendices should only include relevant policies as any other information will not be considered.

Suggested Action Plan Structure

- 'Inclusion' objectives – what are you seeking to achieve
- Current position/Baseline - what does your baseline data say about where you are (this should provide some guidance as to the additional actions to be taken or actions to be dis/continued. The Equality Act's protected characteristic groups are: age, disability, gender, gender reassignment, pregnancy and maternity, race, religion/ belief and sexual orientation
- Action/task – what are you going to do towards meeting your objectives
- When this will happen – when will you take the action specified above
- Person responsible – who will be responsible for this action
- Resource - you may also want to consider the resources needed to take action over and above the responsible officer
- Measure of success (outcome/PI's) – what will success look like

The areas covered below are objective areas that the *Employe*r would, as a minimum, expect suppliers to have considered and included. Additional objectives can be added to those already included below. Any additional objectives will vary depending on the situation of the company and in relation to the specific contract/project concern.

Inclusion Action Plan

	Inclusion objective	Current position/baseline	Action/ task	When	Person responsible	Measure of success (MoS) and progress update	Score
1.0	**Employment Section – General**						
1.1	Create an environment in which everyone has an equal opportunity to contribute and develop						
1.2	Create an environment in which policies, procedures and behaviours that inhibit fairness or prevent inclusion are changed						
1.3	Ensure Leadership and Governance established on contract to achieve plan objectives						
2.0	**Employment Section – Workforce**						
2.1	Workforce diversity - Establish baseline for workforce composition						
2.2	Ensure that all staff are aware of and contribute to the contract's Equality and Diversity requirements						
2.3	Ensure all relevant staff have undertaken diversity training						

Inclusion Action Plan

	Inclusion objective	Current position/baseline	Action/ task	When	Person responsible	Measure of success (MoS) and progress update	Score
2.4	Take reasonable steps to attract, recruit and develop a workforce that is balanced in terms of groups with 'protected characteristics' at all levels within the organisation.						
2.5	Seek ways to support the creation of apprenticeships, internships, work pairings, and college training places giving consideration to using these opportunities to encourage under represented.						
3.0	**Employment Section - Supply Chain**						
3.1	Ensure supply chain recruitment policies and practices are free from discriminatory practices.						
3.2	Demonstrate due consideration has been given to the use of SMEs and Supported Businesses within the supply chain for this contract.						
4.0	**Service Delivery Section – General**						

4.1	Take reasonable steps to deliver products and services that our customers can access and that take account of their diverse needs						

Inclusion Action Plan

	Inclusion objective	Current position/baseline	Action/ task	When	Person responsible	Measure of success (MoS) and progress update	Score
5.0	**Service Delivery Section – Communities**						
5.1	Seek ways to support the creation of workplace training places giving consideration to using these opportunities to encourage under the represented.						
5.2	Where the delivery of a scheme may be perceived to have an impact on local communities we will seek to minimise and mitigate any negative impact.					.	
5.3	Ensure that communications activities to all stakeholders are appropriate to address Equality and Diversity, and Skills/Apprenticeship issues						

EMPLOYER'S WORKS INFORMATION SECTION

Annex G

Procurement through Category Purchase Agreements (excluding technology Category Suppliers)

Annex G Procurement through Category Purchase Agreements (excluding technology Category Suppliers)

Category Purchase Agreements and the list of categories are available at: http://www.highways.gov.uk/about-us/procurement/supplier-selection-and-development/category-management/

Prior to entering into any subcontract for the for the bulk purchase of materials, works or services (excluding traffic management technology), the *Contractor:*

- undertakes market testing of scheme requirements against Category Purchase Agreements; or
- for categories where no Category Purchase Agreement is in place; obtains scheme specific quality and methodology submissions from potential suppliers (in addition to complying with the requirements identified at WI 1205).

The *Contractor* provides this information to the *Employer.*
When instructed by the *Employer* to enter into a contract with a Category Supplier, the *Contractor* manages the procurement process and any secondary competition in accordance with the Framework Information for the Category Purchase Agreement.

The *Contractor* provides full visibility to the *Employer* of the procurement process for the selection of any Category Supplier.

CATEGORY MANAGEMENT PRINCIPLES

Category Management is a key element of the *Employer's* Procurement Strategy 'Delivering Sustainable Value Through Supply Chain Management' and as such:

1. All relevant scheme elements are tested by the *Contractor* against the *Employer's* Category Management (CM) framework where such agreements exist. These are:
    - Traffic management technology

2. Any proposal not to use the *Employer's* CM arrangements is submitted to the *Employer* for approval outlining why CM arrangements will not deliver value.

3. Any assessment of options for delivering CM works or services elements takes account of any identified whole life cost savings and non-financial factors, such as health and safety benefits, in addition to the initial capital cost.

4. Input into the Development stage is obtained by the *Contractor* from the *Employer's* Category Management framework suppliers during the Development stage of the Scheme and is encouraged.

5. Where availability to employ professional services through CM frameworks exists, the *Contractor* may choose to employ these services during and beyond the Development Stage of a Package Contract. Subject to the *selection procedure* in the applicable CM framework, in this instance the

Contractor may propose a direct award of CM works at Delivery stage to a preferred CM supplier without the requirement for further competition. Any proposal shall demonstrate value for money and is subject to prior acceptance by the *Employer.*

6. In circumstances where the *Contractor* has employed professional services through an *Employer's* CM framework, the *Contractor* is not obliged to direct award the works at Delivery stage. In this instance the *Contractor* follows the CM framework *selection procedure* to identify a CM framework supplier to deliver the works requirements.

7. The *Contractor* liaises with the *Employer* to identify and plan a programme that allows the CM framework procurement and associated governance procedures to be implemented within the requirements of the overall project programme.

8. Where the *Employer*'s approval is obtained not to use CM frameworks for CM works elements, the proposed subcontractors and associated subcontract conditions are submitted for acceptance in accordance with the *conditions of contract* (Clauses 26.2 and 26.3).

9. Where the *Employer*'s approval is obtained not to use CM frameworks for CM works elements and the *Contractor* proposes to use "in-house" arrangements, the *Contractor* demonstrates that the price is at open market or competitively tendered prices in accordance with the *conditions of contract* (Clause 52.1).

10. If so required by the *Employer*, the *Contractor* procures that a Subcontractor enters into a contract with a Category Supplier pursuant to a Category Purchase Agreement for the purchase of materials, works or services needed to provide the Works. The *Contractor* procures that the conditions of contract between the Subcontractor and the Category Supplier are those set out in the Category Purchase Agreement and that the Subcontractor does not change them unless the *Employer* agrees.

EMPLOYER'S WORKS INFORMATION SECTION

Annex H

Procurement through Category Purchase Agreements (technology Category Suppliers)

Annex H Procurement through Category Purchase Agreements – technology Category Suppliers

When instructed by the *Employer,* the *Contractor* enters into a contract with a Category Supplier for the procurement and installation of roadside technology, pursuant to the Category Purchase Agreement with the Crown Commercial Service (formerly Government Procurement Service, GPS), namely, the Traffic Management Technology Framework (TMTF).

Unless otherwise specified in the Works Information or instructed by the *Project Manager,* the *Contractor* manages the procurement process and any secondary competition in accordance with the TMTF and monitors expenditure and performance against the agreed TMTF Task.

Unless otherwise specified in the Works Information or instructed by the *Project Manager, t*he *Contractor* arranges and manages installation.

Signs and signals

Signs and signals are procured against agreed *Employer* specifications and are based on forecasts provided by the *Contractor*.

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer*

For a limited period, fiscal stimulus Version 2 AMIs, MS4s and associated auxiliary items, are procured as set out below.

Fiscal Stimulus Signs and Signals – Version 2 AMIs, MS4s and Associated Auxiliary Items.

The *Employer* holds a limited stock of Version 2 AMIs, MS4s and associated auxiliary items at Highways England's National Distribution Centre (the "NDC"). Until depletion, these items are procured by the *Contractor*.

When Plant passes all Site acceptance testing, responsibility for maintenance transfers to the *Employer*

CCTV

CCTV is procured against agreed *Employer* specifications

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer*

Roadside Infrastructure Plant

Roadside infrastructure Plant is procured against agreed *Employer* specifications

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer.*

For a limited period, roadside infrastructure Plant is procured as set out below.

The *Employer* holds a limited stock of roadside infrastructure Plant at the NDC. Until depletion, these items are procured by the *Contractor*. The *Contractor* agrees allocation with the *Employer.*

Cable

Cable is procured against agreed *Employer* specifications

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer*

For a limited period, cable is procured as set out below.

The *Employer* holds a limited stock of Cable at the National Distribution Centre (NDC). Until depletion, this cable is to be procured by the *Contractor*. The *Contractor* is responsible for agreeing allocation with the *Employer.*

Emergency Roadside Telephones (ERTS) and Traffic Monitoring Plant (NTIS & MIDAS)

ERTS, NTIS and MIDAS Plant is procured against agreed *Employer* specifications

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer.*

HADECS3

HADECS Plant is procured against agreed *Employer* specifications.

The *Contractor* arranges and manages maintenance in accordance with Home Office Type Approval requirements.

On expiry of the warranty period, responsibility for maintenance transfers to the *Employer.*

For a limited period HADECS3 is procured as set out below:

The *Employer* operates the tender letting process through the framework contract (1/208 Highways England's Digital Enforcement Compliance System) and undertakes competition, based on forecasts provided by the *Contractor*.

Supply and installation under this contract will run until the earlier of:

- March 2018; or
- the achievement of the financial limit of the contract

Maintenance under this contract will run until the earlier of:

- 2024; or
- the achievement of the financial limit of the contract

EMPLOYER'S WORKS INFORMATION SECTION

Annex I

Scheme Recovery Services

Annex I Scheme Recovery Services

The *Employer*'s Next Generation Vehicle Recovery (VR2) contractor, (appointed to deliver a service for the statutory removal of vehicles from those parts of the *Employer*'s network patrolled by the Traffic Officer Service), offers a scheme recovery service.

The VR2 contract operates until at least 1 October 2017, but may be extended in yearly increments up to 30th September 2020.

Whilst the VR2 contract is operational, the *Contractor* follows the procurement procedure set out below for the selection of any Subcontractor to undertake scheme recovery services.

Procurement Procedure

The *Contractor* invites competitive tenders from a minimum of 3 potential subcontractors, including the *Employer's* VR2 contractor. The *Contractor* assesses tenders for both quality and price, to establish the subcontractor offering best value. The *Contractor*'s submits details of his preferred subcontractor (on the basis of best value) to the *Employer* for acceptance.

EMPLOYER'S WORKS INFORMATION SECTION

Annex J

Insurance Tables

Annex J Insurance Tables

Insurance Table (Required Insurances)
1. Contractors "All Risks" Insurance (CAR)
1.1 Insureds
1.1.1 Contractor
1.1.2 Employer
as appropriate, each for their respective rights and interests in the Contract.
1.2 Insured Property
The permanent and temporary works, materials, goods, plant and equipment for incorporation in the works (plus constructional machinery, plant, tools, accommodation and equipment belonging to or the responsibility of the Contractor or its Subcontractors) and all other property used or for use in connection with works associated with this contract.
1.3 Coverage
"All Risks" of physical loss, damage or destruction to the Insured Property (in paragraph 1.2 above) unless otherwise excluded.
1.4 Cover Features and Extensions
1.4.1 Terrorism.
1.4.2 Additional costs of completion clause.
1.4.3 Professional fees clause.
1.4.4 Debris removal clause.
1.4.5 Seventy two (72) hour clause.
1.4.6 European Union local authorities clause.
1.4.7 Free issue materials clause.
1.4.8 Ten percent (10%) escalation clause.
1.4.9 Automatic reinstatement of sum insured clause.
1.4.10 Loss minimisation.
1.4.11 Plans and specifications clause.
1.4.12 Guarantee maintenance or extended maintenance to the extent available.
1.4.13 Payments on account.
1.4.14 Temporary repairs.
1.4.15 Offsite storage and repairs.
1.4.16 Fire Joint Code of Practice.
1.4.17 Multiple insured clause incorporating the Employer as a co-insured party with attendant non vitiation, waiver of subrogation and notice of cancellation provisions.

Insurance Table (Required Insurances)
1.5 Principal Exclusions 1.5.1 War and related perils. 1.5.2 Nuclear/radioactive risks. 1.5.3 Pressure waves caused by aircraft and other aerial devices travelling at sonic or supersonic speeds. 1.5.4 Wear, tear and gradual deterioration. 1.5.5 Consequential financial losses. 1.5.6 Cyber risks. 1.5.7 Inventory losses, fraud and employee dishonesty. 1.5.8 Faulty design, workmanship and materials DE5 or LEG3.
2. Third Party Public and Products Liability Insurance
2.1 Insureds Contractor
2.2 Interest To indemnify the Insured in respect of all sums which the Insured may become legally liable to pay whether contractually or otherwise (including claimant's costs and expenses) as damages in respect of accidental; 2.1.1 death or bodily injury, illness or disease contracted by any person; 2.2.2 loss or damage to property; happening during the period of insurance and arising out of or in connection with this contract.
2.3 Cover Features and Extensions 2.3.1 Cross liability clause. 2.3.2 Contingent motor vehicle liability. 2.3.3 Legal defence costs. 2.3.4 Indemnity to principals clause. 2.3.5 Health & Safety at Work Act(s) clause. 2.3.6 Data Protection Act clause. 2.3.7 Consumer Protection Act 1987. 2.3.8 Defence appeal and prosecution costs relating to the Corporate Manslaughter and Corporate Homicide Act 2007.
2.4 Principal Exclusions 2.4.1 War and related perils. 2.4.2 Nuclear/radioactive risks. 2.4.3 Liability for death, illness, disease or bodily injury sustained by employees of the insured arising out of the course of their employment. 2.4.4 Liability arising out of the use of mechanically propelled vehicles

Insurance Table (Required Insurances)
whilst required to be compulsorily insured by legislation in respect of such vehicles. 2.4.5 Liability in respect of predetermined penalties or liquidated damages imposed under any contract entered into by the Insured. 2.4.6 Liability in respect of loss or damage to property in the care, custody and control of the insured. 2.4.7 Events more properly covered under a Professional Indemnity Insurance policy. 2.4.8 Liability arising from the ownership, possession or use of any aircraft or marine vessels. 2.4.9 Liability arising from seepage and pollution unless caused by a sudden, unintended and unexpected occurrence. 2.4.10 Losses indemnified under the Contractors "All Risks" Insurance policy (in paragraph 1 above). 2.4.11 Liability arising from toxic mould. 2.4.12 Liability arising from asbestos. 2.4.13 Cyber risks. **3. Professional Indemnity Insurance** 3.1 Insureds Contractor 3.2 Interest To indemnify the Insured for all sums which the Insured shall become legally liable to pay (including claimants costs and expenses) as a result of any claim or claims first made against the Insured during the Period of Insurance by reason of any act, error and/or omission arising from or in connection with professional activities, duties and services undertaken by the *Contractor* in connection with the contract 3.3 Cover Features and Extensions 3.3.1 Loss of documents and computer records extension. 3.3.2 Legal liability assumed under contract, duty of care agreements and collateral warranties. 3.4 Principal Exclusions 3.4.1 War and related perils. 3.4.2 Nuclear/radioactive risks. 3.4.3 Insolvency of the Insured. 3.4.4 Bodily injury, sickness, disease or death sustained by any employee. **4. Policies to be taken out as required by United Kingdom law.** The Contractor is required to meet its statutory insurance obligations in full. Insurances required to comply with all statutory requirements including, but not limited to, Employers' Liability Insurance and Motor Third

Insurance Table (Required Insurances)
Party Liability Insurance.

EMPLOYER'S WORKS INFORMATION SECTION

Annex K

Project Risks

Annex K Project Risks

M62 J10-12

	Risk
1	Expansion of the existing sub-grade replacement material (slag) may have reacted with groundwater, creating an uneven pavement surface, affecting areas adjacent to the carriageway, including the central reservation and hard shoulder as well as in cuttings between J11 to J12.
2	The proposed Clean Air Zone (CAZ) in Manchester may introduce the need to phase construction activities to meet these requirements.
3	Additional air quality models may be required for different traffic scenarios to assess the air quality cumulative effects because of the similarity in opening years for each of the Greater Manchester SMP schemes.
4	Current drainage may be unfit for refurbishment. The deep drainage may be unaffected.
5	Sections of the existing hard-shoulder may be of sub-standard construction and unsuitable for use as permanent running lanes.

EMPLOYER'S WORKS INFORMATION SECTION

Annex L

Key People

Annex L Key People

Identify key personnel required from the list below

Should the *Contractor* have the need to replace any named Key People they are to request written consent from the *Project Manager* a minimum of 28 days prior to the date of the change.

The *Project Manager* will assess the capability and competency of the individual and reserves the right to reject should there be concerns raised.

Project Director
Project Manager
Design Manager
Commercial Manager
Quality Manager
Health and Safety Manager
Construction Manager
Project Planner (Schedule)

EMPLOYER'S WORKS INFORMATION SECTION

Annex M

Annex M

Schedule of Other Costs

Schedule of Other Costs			
1	Historic Costs - Inception to End of Stage 3	£0	Excluded from Other Costs
2	Highways England's Stage 3-5 Costs	£910,000	
3	Highways England's Stage 6-7 Costs	£2,175,000	
4	Lands Costs - Part 1 Claims, Third Party Claims	£350,000	
5	SU costs	£640,279	
6	NRTS Costs	£3,530,000	
7	Local Authority, Environment Agency, Network Rail	£70,000	
8	Bulk Purchase Item Costs	£0	Assumes all technology costs included in the total of the Prices.
9	HADECS communications links annual maintenance costs for the first 3 years	£100,000	
10	HADECS Link to Police Enforcement Room Costs	£100,000	
11	Evidential Trail Costs for HADECS	£50,000	
12	SMALR Post OFT Operation Monitoring Costs	£150,000	
13	Safety Camera Partnership	£945,000	
14	OD Costs (ASC/MAC/AD)	£270,000	
15	DBFO	£0	
16	RCC/TechMac/NTOC Costs	£500,000	
17	Taskforce Costs for MIDAS/RAMP Metering/CCTV/SMALR	£238,747	
18	Third-Party Contributions / Other Income	£0	
	Total	**£10,029,026**	

EMPLOYER'S WORKS INFORMATION SECTION

Annex N

Requirements for PCF Products prepared for the Employer by the Contractor

Annex N Requirements for PCF Products prepared for the Overseeing Organisation by the Contractor

The *Contractor* shall ensure that the PCF Products required for Stages 5-7, listed below, are prepared in accordance with the Overseeing Organisation's requirements as defined on the Highways England Supply Chain Portal website, and to meet the requirements of the Stage Gate Assessment Reviews during Stages 5-7 only.

An indication of the party likely to be given responsibility for final delivery of the PCF Products is given in the table below:

PCF - Product Matrix						
Group	**Product**	**Stage 5**	**Stage 6**	**Stage 7**	**Responsibility**	**Support**
Scope	Client Scheme Requirements	Reviewed	Reviewed		Highways England	Contractor
	Analytical Requirements Report					
	Appraisal Specification Report					
Cost Estimating	Order of Magnitude Estimate					
	Options Estimate (may not need both an Options and Developing Estimate - liaise with Estimating Manager)					
	Developing Estimate (may not need both an Options and Developing Estimate - liaise with Estimating Manager)					
	Final Estimate	Produced			*Contractor*	
Risk	Risk Management Plan	Updated	Updated	Updated	Contractor	
	Risk Register	Refined	Refined	Refined	Contractor	
Business Case and Funding	Transport Data Package	Refined			*Contractor*	
	Transport Model	Refined			*Contractor*	

	Package					
	Transport Forecasting Package	Refined			*Contractor*	
	Economic Appraisal Package	Refined			*Contractor*	
	Appraisal Summary Table	Refined			*Contractor*	
	Combined Modelling and Appraisal (ComMA)	Refined			*Contractor*	
	Business Case	Refined	Reviewed		Highways England	Contractor
	Investment Submission	Produced			*Highways England*	*Contractor*
	Option Assessment Report					
Value Management	Value Management Plan	Updated	Updated	Updated	Contractor	
	Efficiency Register	Refined	Refined	Refined	Contractor	
	Value Management Workshop Report	Produced	Reviewed	Produced	Contractor	
Specification Requirements & Design	Scheme Assessment Report (could combine with TAR and RoPC)	Updated			*Contractor*	
	Technical Appraisal Report (could combine with SAR and RoPC)					
	Report on Public Consultation (could combine with SAR and TAR)					
	Preliminary Design					
	Pre-construction Design	Produced			*Contractor*	
	Tunnel Design Authority Report (Tunnel Only)	Reviewed	Reviewed	Reviewed	N/A	N/A

	As-Built Documentation		Produced	Refined	Contractor	
	Safety Plan	Updated	Reviewed	Reviewed	Contractor	
	Combined Safety and Hazard Log Report	Updated	Updated	Updated	Contractor	
	Combined Operations	Refined	Refined		Contractor	
	Telecommunications Requirements	Refined	Refined	Updated	Contractor	
	RCC Technology and Capacity Implications Report	Updated	Updated		Highways England TMD RCC Readiness	Contractor
	Traffic Officer Service Training Requirements	Produced	Updated		Highways England TMD, Traffic Learning Centre	Contractor
	Site Data Change Request	Produced	Updated	Updated	Contractor	
	Code of Connection	Produced	Updated		Contractor	
	Application for Roadside Electricity Connections (Exit Points)	Refined	Reviewed		Contractor	
Managing Change	Change Request Log	Produced	Produced	Produced	Highways England	Contractor
	Change Request Form	Produced	Produced	Produced	Highways England	Contractor
	Exception Report	Produced	Produced	Produced	Highways England	Contractor
Project Management	POPE Scheme Evaluation Plan	Produced		Reviewed	Separate Commission	
	End of Stage Report	Produced	Produced		Highways England	Contractor
	Product Checklist	Produced	Produced	Produced	Highways England	Contractor
	Project Management Plan	Updated	Updated	Updated	Highways England	Contractor
	Project Schedule	Refined	Refined	Refined	Contractor	
	Regular Reporting	Produced	Produced	Produced	Highways England	Contractor
	Stage Gate Assessment Review Certificate	Produced	Produced	Produced	Highways England	Contractor

	Certificate of Compliance with MPI-31 (Operations TLG)	**Produced**		**Produced**	**Contractor**	
	Project Closeout Report			**Produced**	Highways England	
	Lessons Learnt Log	**Updated**	**Updated**	**Updated**	Contractor	
	Lessons Learnt Report			**Produced**	Contractor	
	Equality Impact Assessment (EqIA) Screening, Analysis and Monitoring	**Refined**	**Refined**	**Refined**	***Contractor***	
	Integrated Assurance and Approvals Plan	**Updated**	**Updated**	**Updated**	***Contractor***	
Procurement	**Project Level Procurement Strategy**	**Reviewed**	**Reviewed**		Contractor	
	Technology Procurement Strategy Incl. Bulk Purchase	**Refined**	**Refined**		Contractor	
Health & Safety	**Pre-construction Information**					
	F10 Notification of Construction Project	**Updated**			***Contractor***	
	Construction Phase Plan	**Produced**	**Updated**		Contractor	
	Health & Safety File	**Updated**	**Updated**	**Updated**	Contractor	
	Maintenance and Repair Strategy Statement	**Refined**	**Reviewed**		Contractor	
	Scheme Asbestos Management Plan	**Produced**	**Reviewed**	**Reviewed**	Contractor	
SES Approvals	**Statement of Intent (Geotechnical)**					
	Preliminary Sources Study					

	Ground Investigation Report					
	Geotechnical Design Report	Produced			*Contractor*	
	Geotechnical Feedback Report			Produced	*Contractor*	
	Early Structures Notification Form Checklist					
	Structures Options Report Checklist	Reviewed			*Contractor*	
	Approvals in Principle Checklist	Updated	Updated		*Contractor*	
	Design & Check Certificates Checklist	Produced	Updated		Contractor	
	Residual Non-conformance Schedule Checklist		Produced		*Contractor*	
	Construction Compliance Certificate Checklist		Produced		Contractor	
Public Consultation (including Public Information Exhibitions)	Public Consultation Strategy	Produced			*Contractor*	
	Public Consultation Leaflet	Produced			*Contractor*	
	Public Consultation Publicity Checklist	Produced			*Contractor*	
	Public Consultation Exhibition Checklist	Produced			*Contractor*	
	Statement of Results of Public Consultation Checklist	Produced			*Contractor*	
	Notification of Development	Reviewed		Reviewed	*Contractor*	
	Section 85 Notice					

	Impact Assessment (Controlled Motorways Only) NB this product is no longer required on MM-ALR projects or those Single Option projects that do not involve variable mandatory speed limits	Refined			*N/A*	*N/A*
	Consultation Document for Statutory Instrument (SM Only)	Refined			*Contractor*	
	Statutory Instrument and Explanatory Memorandum (SM Only)		Produced		Highways England	
Orders (Highways Act 1980)	Orders Requirement					
	Draft Orders					
	Made Orders					
	Publishing Draft Orders					
	Exchange Land Certificates & Planning Consents					
	Draft Orders Exhibition Checklist					
	Strategy for Exercising Compulsory Acquisition Powers					
	General Vesting Declaration Checklist					
	Notice(s) to Treat & Enter					
	Land - Gaining Access For Surveys					

	Planning Statement					
	Information and Justification to support Compulsory Purchase					
Orders (Planning Act 2008)	Pre-Consultation Activities - Statement of Community Consultation & Section 48 Notice					
	Pre-Consultation Activities - Statutory Consultation Strategy					
	Pre-application Consultation Report					
	DCO Application - Development Consent Order & Explanatory Memorandum					
	DCO Application - Form & Contents Overview					
	DCO Application - Plans					
	Application for a change to a Development Consent Order					
	PINS Publicity Checklist					
	DCO Application - Land Referencing & Book of Reference					
	Land - Gaining Access For Surveys					

	DCO Application - Planning Statement & National Policy Statement Accordance					
	DCO Application - Statement of Reasons & Funding Statement					
Other Notices	Part 1, Noise and Road Opening Notices		Produced	Produced	Highways England	Contractor
Standards & Specification	Road Safety Audit	Produced	Produced	Produced	Contractor	
	Departures from Standards Checklist	Produced	Produced		Contractor	
	Implementation Report For New Standards	Produced	Produced		Contractor	
Communications	Communication Planning for Major Projects	Updated	Updated		Contractor	
Public Inquiry (Highways Act 1980)	Arrange Public Inquiry					
	Programme Public Inquiry					
	Prerequisities for Public Inquiry					
	Handling Representations for Orders					
	Third Party Costs at Public Inquiry					
	Statement of Case and Evidence for Public Inquiry					
Public Examination (Planning Act 2008)	PINS Preliminary Meeting and Hearing					
	Decision Process					
	PINS Publicity Checklist					
	Objectors'					

	Costs following a PINS Hearing					
	Strategy for Exercising Compulsory Acquisition Powers					
	General Vesting Declaration Checklist					
	PINS Notice(s) to Treat and Enter					
Works Procurement	Contract Documents	Produced			*Contractor*	
	Statutory Undertakers Estimate	Refined			*Contractor*	
Handover	Civils Maintenance (MAC) Handover Documentation & Certificate		Produced	Reviewed	Contractor	
	Technology Maintenance (Technology Maintainers) Handover Documentation & Certificate		Produced	Reviewed	Contractor	
	Operational (RCC) Handover Documentation & Certificate		Produced	Reviewed	Contractor	
	Handover Schedule	Produced	Refined		Contractor	
	Technology Commissioning Plan	Produced	Refined	Updated	Contractor	
	Permit to Connect		Produced	Updated	Contractor	
	Plan for Monitoring Operations and Monitoring Output	Produced	Refined	Produced	Contractor	
	Detailed Local Operating Agreement	Produced	Reviewed		Contractor	

Traffic Management	**Traffic Management Plan**	**Refined**	**Refined**		D & B Contractor	
Environmental	**EIA Screening (Determination)**					
	Habitat Regulations Assessment					
	Environmental Scoping Report					
	Environmental Assessment Report / Environmental Statement					
	Preliminary Environmental Information					
	Environmental Management Plans	**Refined**	**Refined**	**Refined**	Contractor	
	Evaluation of Change Register	**Produced**	**Refined**	**Refined**	***Contractor***	
	Preliminary Environmental Risk Assessment					
	Project Design Report	**Refined**			***Contractor***	

Version 22 - 01st June 2017

SM Only	Product only applicable to Smart Motorway projects
CM Only	Product only applicable to Controlled Motorway projects
Tunnel Only	Product only applicable to projects which include a tunnel within their design

Amber colouring denotes a critical product - i.e. a product so critical to delivery in the specific stage in which it is highlighted that an automatic red / amber

outcome will be awarded at the SGAR if it is not fully complete.

EMPLOYER'S WORKS INFORMATION SECTION

Annex O

Commodity Breakdown Structure

Annex O Commodity Breakdown Structure

Revised CBS (11 November 2014)

Level	Series	Code	Description	Unit
L1	01	01	People	LS
L2	01	01.10	Directly Employed Labour	LS
L3	01	01.10.10	Directly employed unskilled Labour	hr
L4	01	01.10.10.10	Labourer (G. O. Unskilled)	hr
L3	01	01.10.20	Directly employed semi-skilled Labour	hr
L4	01	01.10.20.05	Security guard	hr
L4	01	01.10.20.10	Banksman	hr
L4	01	01.10.20.20	Concreter	hr
L4	01	01.10.20.30	Pipe layer	hr
L4	01	01.10.20.40	Kerb layer	hr
L4	01	01.10.20.50	Plant operator	hr
L4	01	01.10.20.60	Scaffolder	hr
L4	01	01.10.20.70	Welder	hr
L4	01	01.10.20.80	Structural steel erector	hr
L4	01	01.10.20.90	Steel fixer	hr
L3	01	01.10.30	Directly employed skilled Labour	hr
L4	01	01.10.30.10	Ganger	hr
L4	01	01.10.30.20	Bricklayer	hr
L4	01	01.10.30.30	Carpenter	hr
L4	01	01.10.30.40	Plumber	hr
L4	01	01.10.30.50	Electrician	hr
L3	01	01.10.40	Directly Employed Labour Extra over Costs	LS
L4	01	01.10.40.10	Subsistence	hr
L4	01	01.10.40.20	Travel & Fares	hr
L4	01	01.10.40.30	Overtime (if paid) & Night working	hr
L4	01	01.10.40.40	Travel - usually @ cost or agreed mileage rate	item
L2	01	01.20	Labour Only Sub contract or Agency Labour	LS
L3	01	01.20.10	Indirectly employed Unskilled Labour	hr
L4	01	01.20.10.10	Labourer	hr
L3	01	01.20.20	Indirectly employed Semi skilled Labour	hr
L4	01	01.20.20.05	Security guard	hr
L4	01	01.20.20.10	Banksman	hr
L4	01	01.20.20.20	Concreter	hr
L4	01	01.20.20.30	Pipe layer	hr
L4	01	01.20.20.40	Kerb layer	hr
L4	01	01.20.20.50	Plant operator	hr
L4	01	01.20.20.60	Scaffolder	hr
L4	01	01.20.20.70	Welder	hr
L4	01	01.20.20.80	Structural steel erector	hr
L4	01	01.20.20.90	Steel fixer	hr
L3	01	01.20.30	Indirectly employed skilled Labour	hr
L4	01	01.20.30.10	Ganger	hr

Revised CBS (11 November 2014)

Level	Series	Code	Description	Unit
L4	01	01.20.30.20	Bricklayer	hr
L4	01	01.20.30.30	Carpenter	hr
L4	01	01.20.30.40	Plumber	hr
L4	01	01.20.30.50	Electrician	hr
L3	01	01.20.40	Indirectly Employed Labour Extra over Costs	LS
L4	01	01.20.40.10	Subsistence	hr
L4	01	01.20.40.20	Travel & Fares	hr
L4	01	01.20.40.30	Overtime (if paid) & Night working	hr
L4	01	01.20.40.40	Travel - usually @ cost or agreed mileage rate	item
L2	01	01.30	Staff	LS
L3	01	01.30.10	Project Management	hr
L4	01	01.30.10.10	Project Director	hr
L4	01	01.30.10.20	Project Manager	hr
L4	01	01.30.10.30	Construction Manager (or Agent)	hr
L4	01	01.30.10.40	Technology Integration & Commissioning Manager	hr
L4	01	01.30.10.50	Temp Works Co-ordinator	hr
L4	01	01.30.10.60	Planning Manager	hr
L4	01	01.30.10.70	Planning Engineer	hr
L4	01	01.30.10.80	Safety Health & Environment Manager	hr
L4	01	01.30.10.90	Safety Health & Environment Trainer	hr
L3	01	01.30.20	Design & Engineering	hr
L4	01	01.30.20.10	Design Manager	hr
L4	01	01.30.20.20	Technology Design Integration Manager	hr
L4	01	01.30.20.30	Senior Engineer	hr
L4	01	01.30.20.40	Engineer (state type)	hr
L4	01	01.30.20.50	IVQT Engineer (State type of Inspector)	hr
L4	01	01.30.20.60	Survey Manager/Senior Land Surveyor	hr
L4	01	01.30.20.70	Setting out engineer/land surveyor	hr
L4	01	01.30.20.80	Chain man	hr
L3	01	01.30.30	Site Supervision	hr
L4	01	01.30.30.10	Technology Commissioning Supervisor	hr
L4	01	01.30.30.20	Foreman (State type if noted)	hr
L4	01	01.30.30.30	Traffic Safety Control Officer	hr
L4	01	01.30.30.40	O/H Nurse	hr
L3	01	01.30.40	Commercial, QS & Accountancy	hr
L4	01	01.30.40.10	Commercial Manager	hr
L4	01	01.30.40.20	Quantity Surveyor	hr
L4	01	01.30.40.30	Buyer	hr
L4	01	01.30.40.40	Accountant/Auditor (state type if noted)	hr
L4	01	01.30.40.50	Estimator	hr
L4	01	01.30.40.60	Risk Manager	hr
L3	01	01.30.50	Administration, including IT & QA	hr
L4	01	01.30.50.10	QA Manager	hr
L4	01	01.30.50.20	IT Systems Manager	hr

Revised CBS (11 November 2014)

Level	Series	Code	Description	Unit
L4	01	01.30.50.30	Office Manager	hr
L4	01	01.30.50.40	Administrator (including: Clerk, Typist, Secretary, Receptionist, Document Controller, Accounts Clerks)	hr
L4	01	01.30.50.50	Admin Assistant	hr
L3	01	01.30.60	Staff Extra over Costs	item
L4	01	01.30.60.10	Subsistence	item
L4	01	01.30.60.20	Travel & Fares	item
L4	01	01.30.60.30	Overtime (if paid) & Night working	item
L2	01	01.99	Other	LS
L3	01	01.99.10	Other -people	LS
L4	01	01.99.10.10	Unallocated people	hr
L4	01	01.99.10.20	Arithmetic errors	sum
L1	02	02	Equipment	LS
L2	02	02.10	Excavation Equipment	hr
L3	02	02.10.10	Excavators	hr
L4	02	02.10.10.10	360° tracked Mini excavator n.e. 3 Tonne	hr
L4	02	02.10.10.20	360° tracked Mini excavator 3.01 - 6.00 Tonne	hr
L4	02	02.10.10.30	360° tracked excavator 6 -17 Tonne	hr
L4	02	02.10.10.40	360° tracked excavator 17.01 -26 Tonne	hr
L4	02	02.10.10.50	360° tracked excavator 26.01 Tonne & above	hr
L4	02	02.10.10.60	360° wheeled excavator 6 -17 Tonne	hr
L4	02	02.10.10.70	360° wheeled excavator 17.01 -26 Tonne	hr
L4	02	02.10.10.80	360° wheeled excavator 26.01 Tonne and above	hr
L4	02	02.10.10.90	360o wheeled tractor loading shovel with back hoe excavator (exceeding 6t) (e.g. JCB 3)	hr
L4	02	02.10.10.95	Suction /vacuum excavator	hr
L3	02	02.10.20	Excavator Ancillary Equipment	hr
L4	02	02.10.20.10	Breaker attachment for Mini excavator n.e. 6 Tonne (describe type)	hr
L4	02	02.10.20.20	Breaker attachment for excavator over 6 Tonne (describe type)	hr
L4	02	02.10.20.30	Pile cruncher for Mini excavator n.e. 6 Tonne (describe type)	hr
L4	02	02.10.20.40	Pile cruncher for excavator over 6 Tonne (describe type)	hr
L4	02	02.10.20.50	Pallet fork adaptor for excavator over 6 Tonne (describe type)	hr
L3	02	02.10.30	Loading Shovels	hr
L4	02	02.10.30.05	Tracked loaders n.e. 3 Tonne	hr
L4	02	02.10.30.15	Tracked loaders 3 -6 Tonne	hr
L4	02	02.10.30.20	Tracked loaders 6 -17 Tonne	hr
L4	02	02.10.30.25	Tracked loaders 17.01 -26 Tonne	hr
L4	02	02.10.30.30	Tracked loaders 26.01 Tonne and above	hr
L4	02	02.10.30.35	Compact Wheeled loaders up to 3.00Tonne (e.g. Bobcat)	hr
L4	02	02.10.30.40	Wheeled loaders 3 -6 Tonne	hr

Level	Series	Code	Description	Unit
L4	02	02.10.30.45	Wheeled loaders 6 -17 Tonne	hr
L4	02	02.10.30.50	Wheeled loaders 17.01 -26 Tonne	hr
L4	02	02.10.30.55	Wheeled loaders 26.01 Tonne and above	hr
L3	02	02.10.40	Crawler Dozers	hr
L4	02	02.10.40.10	Small dozer (up to 10t)	hr
L4	02	02.10.40.20	Medium dozer (exceeding 10t up to 25t)	hr
L4	02	02.10.40.30	Large dozers (exceeding 25t)	hr
L3	02	02.10.50	Other Bulk Earthworks	hr
L4	02	02.10.50.10	Scrapers	hr
L4	02	02.10.50.20	Graders	hr
L2	02	02.20	Compaction Equipment	hr
L3	02	02.20.10	Plate compactors	hr
L4	02	02.20.10.10	Pedestrian operated vibration rammer up to 200 Kg (or Trench compactor)	hr
L4	02	02.20.10.20	Pedestrian operated vibrating Plate compactor (all)	hr
L3	02	02.20.20	Pedestrian guide rollers	hr
L4	02	02.20.20.10	Up to 600 mm wide Vibratory pedestrian operated single Trench roller	hr
L4	02	02.20.20.20	601 -799 mm Vibratory pedestrian operated twin Trench roller	hr
L3	02	02.20.30	Self-propelled sit on rollers	hr
L4	02	02.20.30.10	800 - 1199 mm wide Self-propelled vibratory tandem rollers (e.g. Bomag 80)	hr
L4	02	02.20.30.20	1200 -2399 mm wide Self-propelled vibratory tandem rollers (e.g. Bomag 120)	hr
L4	02	02.20.30.30	2400 mm wide (or Larger) Self-propelled vibratory tandem rollers (e.g. Bomag 240)	hr
L3	02	02.20.40	Towed rollers	hr
L4	02	02.20.40.10	Towed Vibrating roller up to 7 Tonne (state type if known)	hr
L4	02	02.20.40.20	Towed Vibrating roller over 7 Tonne (state type if known)	hr
L2	02	02.30	Transport	hr
L3	02	02.30.10	Dumpers	hr
L4	02	02.30.10.10	Small dumpers 2 wheel drive (up to 3T)	hr
L4	02	02.30.10.20	Small dumpers 4 wheel drive (up to 10t)	hr
L4	02	02.30.10.30	Small side tipping 4 wheel drive dumpers (up to 10t)	hr
L3	02	02.30.20	Articulated Dump Trucks	hr
L4	02	02.30.20.10	Articulated dump trucks up to 23 Tonne	hr
L4	02	02.30.20.20	Articulated dump trucks 23.1 -32 Tonne	hr
L4	02	02.30.20.30	Articulated dump trucks 32.1 - 42 Tonne	hr
L3	02	02.30.30	Rear Dump Trucks	hr
L4	02	02.30.30.10	Rear dump trucks up to 23 Tonne	hr
L4	02	02.30.30.20	Rear dump trucks 23.1 -32 Tonne	hr
L4	02	02.30.30.30	Rear dump trucks 32.1 - 42 Tonne	hr
L3	02	02.30.40	Road Tipper Lorries	hr

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Level	Series	Code	Description	Unit
L4	02	02.30.40.10	Tipper lorry up to 20 Tonnes	hr
L4	02	02.30.40.20	Tipper lorry 20.1 - 30 Tonnes	hr
L4	02	02.30.40.30	Tipper lorry 30.1 - 44 Tonnes	hr
L3	02	02.30.50	Flatbed Road Lorries	hr
L4	02	02.30.50.10	Road Lorry up to 20 Tonnes with Hiab crane or grab bucket	hr
L4	02	02.30.50.20	Road Lorry 20.1 - 44 Tonnes with Hiab crane or grab bucket	hr
L4	02	02.30.50.30	Articulated truck + 12 m trailer (up to 44T)	hr
L4	02	02.30.50.40	Articulated truck + Low loader trailer (up to 44T)	hr
L3	02	02.30.60	Tractors	hr
L4	02	02.30.60.10	Tractor up to 75 KW	hr
L4	02	02.30.60.20	Tractor 75 -92 KW	hr
L4	02	02.30.60.30	Tractor 92 - 150 KW	hr
L4	02	02.30.60.40	Add to tractor for trailer (describe type)	hr
L4	02	02.30.60.50	Add to tractor for Hiab	hr
L4	02	02.30.60.60	Add to tractor for fencing auger	hr
L4	02	02.30.60.70	Fresco broom	hr
L3	02	02.30.70	Vans	wk
L4	02	02.30.70.10	Vans - up to 1.50 T	wk
L4	02	02.30.70.20	Vans - 1.50 -3.00 T	wk
L3	02	02.30.80	Personnel Transport etc.	wk
L4	02	02.30.80.10	Mini-bus	wk
L4	02	02.30.80.20	Welfare van (mess etc.)	wk
L4	02	02.30.80.30	4WD Pick-ups	wk
L4	02	02.30.80.40	Landrovers or equivalent - short wheel base	wk
L4	02	02.30.80.50	Landrovers or equivalent - long wheel base	wk
L4	02	02.30.80.60	Cars - Small Car (Ka)	wk
L4	02	02.30.80.70	Cars -Medium Car (Focus)	wk
L4	02	02.30.80.80	Cars -Estate Car (Mondeo)	wk
L2	02	02.40	Concrete equipment	LS
L3	02	02.40.10	Slip formers & concrete trains	wk
L4	02	02.40.10.10	Central road restraint slip former, including hopper etc.	wk
L4	02	02.40.10.20	Drainage channel slip former, including hopper etc.	wk
L3	02	02.40.20	Lorry mounted concrete pumps	hr
L4	02	02.40.20.10	Lorry mounted concrete pump up to 50 M3/ hour	hr
L4	02	02.40.20.20	Lorry mounted concrete pump 50.1 -80 M3/ hour	hr
L4	02	02.40.20.30	Lorry mounted concrete pump 80-120 M3/ hour	hr
L4	02	02.40.20.40	Skip for placing concrete	hr
L3	02	02.40.30	Vibrating pokers (self-propelled)	hr
L4	02	02.40.30.10	Vibrator poker (self-propelled)	hr
L4	02	02.40.30.20	Vibrator poker (self-propelled) poker head only	hr
L3	02	02.40.40	Vibrating Beams & Screeders	hr
L4	02	02.40.40.10	Vibrating rotary paddle screeder up to 1.80 M	hr
L4	02	02.40.40.20	Vibrating beam screeds - Single Up to 5m	hr
L4	02	02.40.40.30	Vibrating beam screeds - Double Up to 5m	hr

Level	Series	Code	Description	Unit
L3	02	02.40.50	Concrete Saw	hr
L4	02	02.40.50.10	Hand held concrete saw (Stihl Saw)	hr
L4	02	02.40.50.20	Petrol or Diesel floor saw	hr
L4	02	02.40.50.30	Pedestrian guided concrete saw	hr
L3	02	02.40.60	Formwork	wk
L4	02	02.40.60.10	Formwork - Alform beam 2400mm	wk
L4	02	02.40.60.20	Formwork - Rapidshore brace, end link and tilt plate - 1200mm	wk
L4	02	02.40.60.30	Formwork - Super slim soldier	wk
L4	02	02.40.60.40	Formwork - Timber waling clamp assembly	wk
L4	02	02.40.60.50	Road form (state size)	wk
L4	02	02.40.60.60	Stake/road pin extractor for 150mm Road form	wk
L3	02	02.40.70	Hire of scaffold	wk
L4	02	02.40.70.10	Hire of scaffold	wk
L3	02	02.40.80	Ladders & Steps	wk
L4	02	02.40.80.10	Podium steps 1.20 M high	wk
L4	02	02.40.80.20	Boss narrow 1.8 M tower 2.8M Height	wk
L3	02	02.40.90	Concrete Mixer	hr
L4	02	02.40.90.10	Concrete Mixer	hr
L2	02	02.50	Compressors	hr
L3	02	02.50.10	Compressors	hr
L4	02	02.50.10.10	Compressor up to 6.00 cuM / minute including tools & hose	hr
L4	02	02.50.10.20	Compressor 6.01 -12.0 cuM / minute including tools & hose	hr
L4	02	02.50.10.30	Compressor 12.01 -18.00 cuM / minute including tools & hose	hr
L4	02	02.50.10.40	Compressor 18.01 - 30.00 cuM / minute including tools & hose	hr
L4	02	02.50.10.50	Tractor mounted compressor including tools & hoses for 2 operatives use.	hr
L4	02	02.50.10.60	Tractors with front bucket and 2 tool compressor	hr
L3	02	02.50.20	Compressor Tools	hr
L4	02	02.50.20.10	Breaker or pick (state type if given)	hr
L4	02	02.50.20.20	Single headed Scabbler or grinder	hr
L4	02	02.50.20.30	Multi headed Scabbler or grinder	hr
L4	02	02.50.20.40	Sander	hr
L4	02	02.50.20.50	Saw	hr
L4	02	02.50.20.60	Poker	hr
L2	02	02.60	Asphalting & Tarmacing Equipment, Paving Slab Layer etc.	LS
L3	02	02.60.10	Asphalting & Tarmacing Equipment	hr
L4	02	02.60.10.10	Pavers - mini - up to 37KW	hr
L4	02	02.60.10.20	Pavers - tracked or wheeled 38 - 82 KW	hr
L4	02	02.60.10.30	Pavers - tracked or wheeled 82 - 150 KW	hr
L3	02	02.60.20	Planers	hr
L4	02	02.60.20.10	Planers - Planner 0.35M wide	hr

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Level	Series	Code	Description	Unit
L4	02	02.60.20.20	Planers - Planner 0.36 - 1.0M wide	hr
L4	02	02.60.20.30	Planers - Planner 1.01 - 1.99M wide	hr
L4	02	02.60.20.40	Planers - Planner 2.00- 3.00M wide	hr
L4	02	02.60.20.50	Planers - Planner 3.01 M wide or more	hr
L3	02	02.60.30	Paving Slab Layer etc.	day
L4	02	02.60.30.10	Paving slab layer	day
L4	02	02.60.30.20	Block grab	day
L2	02	02.70	Cranes, Mobile Access Platforms & Fork Lifts	LS
L3	02	02.70.10	Cranes	hr
L4	02	02.70.10.05	Mobile rubber tyred all terrain crane up to 18 Tonne	hr
L4	02	02.70.10.10	Mobile rubber tyred all terrain crane 18 -28 Tonne	hr
L4	02	02.70.10.15	Mobile rubber tyred all terrain crane 28 -48 Tonne	hr
L4	02	02.70.10.20	Mobile rubber tyred all terrain crane 48 - 68 Tonne	hr
L4	02	02.70.10.25	Mobile rubber tyred all terrain crane 68 - 108 Tonne	hr
L4	02	02.70.10.30	Mobile rubber tyred all terrain crane 108 -208 Tonne	hr
L4	02	02.70.10.35	Mobile rubber tyred all terrain crane 208 - 299 Tonne	hr
L4	02	02.70.10.40	Mobile rubber tyred all terrain crane 300 Tonne & over	hr
L4	02	02.70.10.45	Crawler mounted cranes Up to 40Tonne	hr
L4	02	02.70.10.50	Crawler mounted cranes 40.1 - 65 Tonne	hr
L4	02	02.70.10.55	Crawler mounted cranes 65.1Tonne & over	hr
L3	02	02.70.20	Access Platforms & Fork Lifts	hr
L4	02	02.70.20.10	Scissor lift self-propelled	hr
L4	02	02.70.20.20	Cherry Picker self-propelled	hr
L4	02	02.70.20.30	Lorry mounted Cherry Picker	hr
L4	02	02.70.20.40	Tele handler with attachments (Or all terrain Forklift)	hr
L3	02	02.70.30	Confined Spaces and other access equipment	LS
L4	02	02.70.30.10	Hydraulic manhole cover lifter for 900 mm cover & under	day
L4	02	02.70.30.20	Hydraulic manhole cover lifter 901 mm & over	day
L4	02	02.70.30.30	Confined spaces CO and other gas monitor	hr
L4	02	02.70.30.40	CAT detector for underground services	hr
L3	02	02.70.40	Vehicle Recovery Service for live Public Highway	hr
L4	02	02.70.40.10	Rear Impact Protection Vehicle (RIPV)	hr
L4	02	02.70.40.20	Light recovery vehicle	hr
L4	02	02.70.40.30	Heavy recovery vehicle	hr
L2	02	02.80	Miscellaneous Site Equipment	LS
L3	02	02.80.10	Electrical Equipment	hr
L4	02	02.80.10.02	Generators up to 16 KVA	hr
L4	02	02.80.10.04	Generators 16.1 - 90 KVA	hr
L4	02	02.80.10.06	Generators 90.1 -180 KVA	hr
L4	02	02.80.10.08	Generators 180.1 -330 KVA	hr
L4	02	02.80.10.10	Transformer up to 16 KVA	hr
L4	02	02.80.10.12	Transformer 16.1 - 90 KVA	hr
L4	02	02.80.10.14	Transformer 90.1 -180 KVA	hr
L4	02	02.80.10.16	Transformer 180.1 -330 KVA	hr

Level	Series	Code	Description	Unit
L4	02	02.80.10.18	Light tower 2 lights up to 8 M high	hr
L4	02	02.80.10.20	Light tower 4 lights up to 16 M high	hr
L4	02	02.80.10.22	Temporary traffic signals - 2 way control	hr
L4	02	02.80.10.24	Temporary traffic signals - 3 way control	hr
L4	02	02.80.10.26	Temporary traffic signals - 4 way control	hr
L4	02	02.80.10.28	Electric powered drill (state nature)	hr
L4	02	02.80.10.30	Angle grinder	hr
L4	02	02.80.10.32	Cut off saw	hr
L4	02	02.80.10.34	Diamond drilling rig& water bottle	hr
L4	02	02.80.10.36	Diamond drill rig water tank	hr
L4	02	02.80.10.38	Diamond drill vacuum pump	hr
L4	02	02.80.10.40	Pop rivet gun lazy tongs	hr
L4	02	02.80.10.42	Hilti cartridge fixing gun	hr
L3	02	02.80.20	Pumps	hr
L4	02	02.80.20.10	Pump & hose up to 75mm Diameter	hr
L4	02	02.80.20.20	Pump & hose 76-115 mm Diameter	hr
L4	02	02.80.20.30	Pump & hose 115 - 165 mm Diameter	hr
L3	02	02.80.30	Mechanical road sweepers, gritters etc.	hr
L4	02	02.80.30.10	Road sweeper with integral tank and gulley suction pump	hr
L4	02	02.80.30.20	Operator's overtime x 1.5	hr
L4	02	02.80.30.30	Operator's overtime x 2.0	hr
L4	02	02.80.30.40	Tipping fees	hr
L4	02	02.80.30.50	Tractor with road brush(es)	hr
L4	02	02.80.30.60	Wheel wash	hr
L4	02	02.80.30.70	Drain Jeter or pressure washer	hr
L4	02	02.80.30.80	Gritter with integral spreader (& snow blade if required) - state size	hr
L3	02	02.80.40	Bowsers	hr
L4	02	02.80.40.10	Mobile towable Water bowsers up to 3,000 Litres	hr
L4	02	02.80.40.20	Mobile towable washer Water bowsers up to 3,000 Litres	hr
L4	02	02.80.40.30	Mobile towable Water bowsers 3,001- 6,000 Litres	hr
L4	02	02.80.40.40	Lorry Mounted Water bowsers over 6,000 Litres	hr
L4	02	02.80.40.50	Mobile towable bunded fuel bowsers up to 3,000 Litres	hr
L4	02	02.80.40.60	Mobile towable bunded fuel bowsers 3,001- 6,000 Litres	hr
L4	02	02.80.40.70	Bunded fuel Tank up to 3,000 Litres	hr
L4	02	02.80.40.80	Bunded fuel Tank up to 3,001 -6,000 Litres	hr
L4	02	02.80.40.90	Lorry Mounted Fuel bowsers, state size (including drip trays & spillage kit)	hr
L3	02	02.80.50	Stores & Offices	wk
L4	02	02.80.50.05	ISO stores container	wk
L4	02	02.80.50.10	Container	wk
L4	02	02.80.50.15	Mobile Office - towable	wk
L4	02	02.80.50.20	Main site offices including welfare facilities - state size Nature etc.	wk

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Level	Series	Code	Description	Unit
L4	02	02.80.50.25	Workforce welfare building - state size Nature etc.	wk
L4	02	02.80.50.30	Recovery office, foundations & services connections cranage &skirt	wk
L4	02	02.80.50.35	Recovery office- state size Nature etc.	wk
L4	02	02.80.50.40	Recovery office- removal	wk
L4	02	02.80.50.45	Small temporary Office (state size, whether or not furniture is included)	wk
L4	02	02.80.50.50	Single fibreglass toilet unit	wk
L3	02	02.80.60	Skips (including Wheelie bins)	LS
L4	02	02.80.60.05	Skips - up to 4 cu M	day
L4	02	02.80.60.10	Skips - 4.1 -16 cu M	day
L4	02	02.80.60.15	Skips - 4.1 - 16 cu M enclosed	day
L4	02	02.80.60.20	Skips - over 16 cu M enclosed	day
L4	02	02.80.60.25	Skips - hazardous waste charge	tonne
L4	02	02.80.60.30	Skips - disposal of inert waste - excess weight charge	tonne
L3	02	02.80.70	Trench Supports	wk
L4	02	02.80.70.10	Trench supports e.g. drag boxes (state Nature & size)	wk
L3	02	02.80.80	Log shredder/wood/tree chipper	hr
L4	02	02.80.80.10	Tree stump grinder pedestrian operated	hr
L4	02	02.80.80.20	Wood chipper - state duty	hr
L4	02	02.80.80.30	Brush cutter	hr
L4	02	02.80.80.40	Chain saw	hr
L4	02	02.80.80.50	Mower state nature	hr
L3	02	02.80.90	Traffic Management Equipment	day
L4	02	02.80.90.05	Install only traffic barriers e.g. Varioguard (state nature & size)	m
L4	02	02.80.90.10	Hire of traffic barriers e.g. Varioguard (state nature & size)	day
L4	02	02.80.90.13	Uplift & relocate of traffic barriers e.g. Varioguard (state nature & size)	m
L4	02	02.80.90.16	Move laterally traffic barriers e.g. Varioguard (state nature & size)	m
L4	02	02.80.90.20	Hire of pedestrian barriers e.g. Herras Fencing (state nature & size)	day
L4	02	02.80.90.30	Temporary road works signs (state nature & size)	day
L4	02	02.80.90.40	Fixed Text Message Sign (FTMS)	day
L4	02	02.80.90.45	Mobile Electronic Text Message Sign - state power source	day
L4	02	02.80.90.50	Road cone State size & nature	day
L4	02	02.80.90.60	Miscellaneous traffic Management equipment	day
L2	02	02.90	Fuel	litre
L3	02	02.90.10	Diesel & Petrol	litre
L4	02	02.90.10.10	Uls Gas Oil (Unleaded red diesel)	litre
L4	02	02.90.10.20	Unleaded road diesel	litre
L4	02	02.90.10.30	Unleaded road petrol	litre
L3	02	02.90.20	Bottled gases	litre

Level	Series	Code	Description	Unit
L4	02	02.90.20.10	Butane	litre
L4	02	02.90.20.20	Oxygen	litre
L4	02	02.90.20.30	Acetylene	litre
L2	02	02.99	Other	LS
L3	02	02.99.10	Other - Equipment	LS
L4	02	02.99.10.05	Purchase on non mechanical Equipment	item
L4	02	02.99.10.10	Unallocated Equipment	item
L4	03	02.99.10.20	Arithmetic errors	sum
L1	03	03	Materials	LS
L2	03	03.10	Aggregates, Fill & Roadstone	LS
L3	03	03.10.10	Imported Aggregates & Fill	tonne
L4	03	03.10.10.05	Hardcore (or acceptable fill Class 1,2, or3)	tonne
L4	03	03.10.10.10	Filter Media (or Class 6A fill - state if known)	tonne
L4	03	03.10.10.15	Fill for starter layer (or Class 6B, C or D fill - state if known)	tonne
L4	03	03.10.10.20	Cement bound granular base (CBGB or Class 6E - state if known)	tonne
L4	03	03.10.10.25	Capping material (class 6F2 fill)	tonne
L4	03	03.10.10.30	Gabion Stone (Class 6G fill)	tonne
L4	03	03.10.10.35	Fill for reinforced earth structures (or Class 6 I or J fill - state if known)	tonne
L4	03	03.10.10.40	Fill for Armco structures (or Class 6 K, L or M fill - state if known)	tonne
L4	03	03.10.10.45	Fill for around structures (or Class 6 N or P fill - state if known)	tonne
L4	03	03.10.10.50	Type 1 - sub base	tonne
L4	03	03.10.10.55	Type 2 - sub base	tonne
L4	03	03.10.10.60	Type 3 - sub base	tonne
L4	03	03.10.10.65	Pipe bedding Type A (90% 10mm aggregate to dust)	tonne
L4	03	03.10.10.70	Filter drain material Type B (94% 10 - 40 Aggregate - 74% 20 - 40 Aggregate)	tonne
L4	03	03.10.10.75	Sand including stone dust- state type	tonne
L4	03	03.10.10.78	Rock salt & other deicing aggregates	tonne
L4	03	03.10.10.80	Part load charge	tonne
L4	03	03.10.10.85	Waiting time	minute
L3	03	03.10.20	Imported topsoil	tonne
L4	03	03.10.20.10	Imported topsoil	tonne
L3	03	03.10.30	Roadstone	tonne
L4	03	03.10.30.10	Road Planings	tonne
L4	03	03.10.30.20	Rolled asphalt binder course	tonne
L4	03	03.10.30.30	Stone Mastic Asphalt (SMA)	tonne
L4	03	03.10.30.40	Supply and deliver close graded macadam, (state aggregate size & PSV)	tonne
L4	03	03.10.30.50	Supply and deliver dense bitumen macadam (DBM50)	tonne
L4	03	03.10.30.60	Supply and deliver heavy duty macadam (HDM50)	tonne

Level	Series	Code	Description	Unit
L4	03	03.10.30.70	Supply and deliver open graded macadam	tonne
L3	03	03.10.40	Disposal of excavated material	tonne
L4	03	03.10.40.10	Disposal of excavated material acceptable material	tonne
L4	03	03.10.40.20	Disposal of excavated material unacceptable material	tonne
L4	03	03.10.40.30	Disposal of excavated concrete, tarmac and other hard uncontaminated material	tonne
L4	03	03.10.40.40	Disposal of contaminated Material off site	tonne
L2	03	03.20	Concrete	LS
L3	03	03.20.10	Ready Mix Concrete	LS
L4	03	03.20.10.05	Blinding concrete up to Mix C12/15 (BS/EN 206-1)	m3
L4	03	03.20.10.10	Structural concrete - Mix C16/20 to C25/30 (BS/EN 206-1)	m3
L4	03	03.20.10.15	Structural concrete - Mix C28/35 to C32/40 (BS/EN 206-1)	m3
L4	03	03.20.10.20	Structural concrete -Mix C35/45 (BS/EN 206-1) and stronger	m3
L4	03	03.20.10.25	Structural concrete - Mix C16/20 to C25/30 (BS/EN 206-1) sulphate resisting	m3
L4	03	03.20.10.30	Structural concrete - Mix C28/35 to C32/40 (BS/EN 206-1) sulphate resisting	m3
L4	03	03.20.10.35	Structural concrete -Mix C35/45 (BS/EN 206-1) and stronger sulphate resisting	m3
L4	03	03.20.10.40	Specialist concrete e.g. Lightweight foamed concrete (state type)	m3
L4	03	03.20.10.45	Part load charge	m3
L4	03	03.20.10.50	Extra charge for night time delivery	m3
L4	03	03.20.10.55	Waiting time	minute
L3	03	03.20.20	Grout, cement, mortar additives and cement mortar	kg
L4	03	03.20.20.10	Ready mix cement mortar (state nature)	m3
L4	03	03.20.20.20	Cement (state nature)	kg
L4	03	03.20.20.30	Mortar & concrete additives (state nature e.g. plasticizer, lime)	kg
L4	03	03.20.20.40	Cement grout	kg
L3	03	03.20.30	Reinforcement	LS
L4	03	03.20.30.05	Mild steel bar (cut and bent) 16mm diameter & under	tonne
L4	03	03.20.30.10	Mild steel bar (cut and bent) 20mm diameter & over	tonne
L4	03	03.20.30.15	High yield steel bar (cut and bent) 16mm diameter & under	tonne
L4	03	03.20.30.20	High yield steel bar (cut and bent) 20mm diameter & over	tonne
L4	03	03.20.30.25	Stainless steel bar EN1.4462 bar cut	tonne
L4	03	03.20.30.30	High yield Prestress Strand	tonne
L4	03	03.20.30.35	Square Mesh Fabric reinforcement (state type & convert to Tonnes)	tonne
L4	03	03.20.30.40	Helical steel reinforcement	tonne
L4	03	03.20.30.45	Steel tie wire	kg
L4	03	03.20.30.50	Stainless steel tie wire	kg
L4	03	03.20.30.55	reinforcement ancillaries (other - describe)	Item
L4	03	03.20.30.60	Reinforcing steel - spacers	per 1000

Level	Series	Code	Description	Unit
L4	03	03.20.30.65	Steel Dowel - (state diameter & length convert to Tonnes)	no
L4	03	03.20.30.70	Stainless steel dowel bar - (state diameter & length convert to Tonnes)	no
L3	03	03.20.40	Formwork Materials	LS
L4	03	03.20.40.10	Plywood (state thickness & type record rate per M2)	m2
L4	03	03.20.40.20	Planned Square Edge carcassing timber (record sizes convert to cost per M3)	m3
L4	03	03.20.40.30	Sawn formwork carcassing timber (record sizes convert to cost per M3)	m3
L4	03	03.20.40.40	Formwork sundries (e.g. mould oil, filer describe nature & quantity)	no
L4	03	03.20.40.50	Formwork - Rapid bar components- state nature	no
L4	03	03.20.40.60	Curved Fibreglass (or similar) Manhole concrete surround Formwork (state size of chamber to be surrounded & height)	no
L4	03	03.20.40.70	Corrugated plastic sheet formwork (e.g. Pecafil)	m2
L4	03	03.20.40.80	Scaffold tube (purchase)	m
L4	03	03.20.40.90	Scaffold fittings (purchase)	no
L2	03	03.30	Drainage, ducts, fittings, chambers	LS
L3	03	03.30.10	Precast Concrete Pipes & Culverts	m
L4	03	03.30.10.10	Up to 300 mm Concrete pipe (state length, class or strength)	m
L4	03	03.30.10.20	300 - 900 mm Concrete pipe (state length, class or strength)	m
L4	03	03.30.10.30	900mm and above Concrete pipe (state length, class or strength)	m
L4	03	03.30.10.40	Up to 300 mm Concrete pipe (state length, class or strength) (rocker Pipe)	m
L4	03	03.30.10.50	300 - 900 mm Concrete pipe (state length, class or strength) (rocker Pipe)	m
L4	03	03.30.10.60	900mm and above Concrete pipe (state length, class or strength) (rocker Pipe)	m
L4	03	03.30.10.70	Precast concrete culvert units (state section type, length, width, height, class or strength)	m
L3	03	03.30.20	Clayware drainage & Ducts	m
L4	03	03.30.20.10	Up to 300 mm Clay pipe, Hepsleeve including collars	m
L4	03	03.30.20.20	300 - 900 mm Clay pipe, Hepsleeve including collars	m
L3	03	03.30.30	Polypipe twin wall pipes and ducts	LS
L4	03	03.30.30.02	Poly Pipe Twin Wall drain up to 300mm (note jointing method)	m
L4	03	03.30.30.04	Poly Pipe Twin Wall drain 300 - 900mm(note jointing method)	m
L4	03	03.30.30.06	Poly Pipe Twin Wall drain over 900mm (note jointing method)	m
L4	03	03.30.30.08	Poly Pipe Twin Wall Perforated drain up to 300mm (note jointing method)	m
L4	03	03.30.30.10	Poly Pipe Twin Wall Perforated drain 300 - 900mm(note jointing method)	m

Level	Series	Code	Description	Unit
L4	03	03.30.30.12	Poly Pipe Twin Wall Perforated drain over 900mm (note jointing method)	m
L4	03	03.30.30.14	Poly Pipe Twin Wall drain up to 300mm (coupler & sealing ring if supplied separately)	no
L4	03	03.30.30.16	Poly Pipe Twin Wall drain 300 - 900mm (coupler & sealing ring if supplied separately)	no
L4	03	03.30.30.18	Poly Pipe Twin Wall drain over 900mm (coupler & sealing ring if supplied separately)	no
L4	03	03.30.30.20	Poly Pipe Twin Wall drain fittings up to 300mm	no
L4	03	03.30.30.22	Poly Pipe Twin Wall drain fittings 300 - 900mm	no
L4	03	03.30.30.24	Poly Pipe Twin Wall drain fittings over 900mm	no
L4	03	03.30.30.26	150mm HDPE gulley conn' pipe in 25m coil (Ridgiflex)	no
L4	03	03.30.30.28	Purple HDPE duct up to 300mm (note jointing method)	m
L4	03	03.30.30.30	Purple HDPE duct up to 300mm (coupler & sealing ring if supplied separately)	m
L4	03	03.30.30.32	Black HDPE duct up to 300mm (note jointing method)	m
L4	03	03.30.30.34	Black HDPE duct up to 300mm (coupler & sealing ring if supplied separately)	m
L4	03	03.30.30.36	Orange ridgiduct Including coupler duct up to 300mm including coupler	m
L4	03	03.30.30.38	100mm 2 way duct spacer	no
L4	03	03.30.30.40	100mm 4 way duct spacer	no
L4	03	03.30.30.42	100mm 6 way duct spacer	no
L4	03	03.30.30.44	Duct end bungs (state size of bung & cable)	no
L4	03	03.30.30.46	Draw cords & temporary bungs	no
L3	03	03.30.40	Other Polypipe	LS
L4	03	03.30.40.10	Single skin PVC-U drain or duct up to 300mm (note jointing method)	m
L4	03	03.30.40.20	Single skin PVC-U drain or duct up to 300mm (coupler & sealing ring if supplied separately)	no
L4	03	03.30.40.30	Single skin PVC-U drain or duct up to 300mm (fittings)	no
L4	03	03.30.40.40	600 x 300 HDPE Yard Gulley	no
L4	03	03.30.40.50	600 x 300 Yard gulley silt box	no
L4	03	03.30.40.60	Grating for 300mm yard gulley	no
L4	03	03.30.40.70	50mm diameter pipe for weep holes	no
L4	03	03.30.40.80	HDPE Road Gulley (state size)	no
L3	03	03.30.50	Ductile Iron Pipe / Fittings	LS
L4	03	03.30.50.10	Ductile iron pipe up to 300mm (note length of pipe & jointing method)	m
L4	03	03.30.50.20	Ductile iron pipe 300 - 900mm (note length of pipe jointing method)	m
L4	03	03.30.50.30	Ductile iron pipe up to 300mm (coupler & sealing ring if supplied separately)	no

Level	Series	Code	Description	Unit
L4	03	03.30.50.40	Ductile iron pipe 300 - 900mm (coupler & sealing ring if supplied separately)	no
L4	03	03.30.50.50	Ductile iron pipe fittings up to 300mm	no
L4	03	03.30.50.60	Ductile iron pipe fittings 300 - 900mm	no
L4	03	03.30.50.70	Ductile iron pipe joint Lubricant	litre
L3	03	03.30.60	Concrete Chamber Units	no
L4	03	03.30.60.05	Precast concrete chamber rings internal diameter not exceeding 1050mm (state actual diameter & height of unit)	no
L4	03	03.30.60.10	Precast concrete chamber rings internal diameter over 1050mm (state actual diameter & height of unit)	no
L4	03	03.30.60.15	Precast concrete chamber Cover slab internal diameter not exceeding 1050mm (state actual diameter of unit)	no
L4	03	03.30.60.20	Precast concrete chamber Cover slab internal diameter over 1050mm (state actual diameter of unit)	no
L4	03	03.30.60.25	Precast concrete chamber Reducer Slab internal diameter over 1050mm (state actual diameters of unit)	no
L4	03	03.30.60.30	Miscellaneous fittings or factory work to precast inspection chambers (state Nature)	no
L4	03	03.30.60.35	Precast Concrete Inspection Chamber rectangular frames (state internal dimensions of chamber & height of unit)	no
L4	03	03.30.60.40	Precast Concrete Inspection Chamber cover (state internal dimensions of chamber unit & nature of opening cover)	no
L4	03	03.30.60.45	Precast concrete Gulley Pot (state Size)	no
L4	03	03.30.60.50	Precast concrete Gulley cover (state Size)	no
L3	03	03.30.70	Cast Iron Covers & Frames	no
L4	03	03.30.70.05	Cast iron inspection chamber and frame (state size and grade)	no
L4	03	03.30.70.10	Cast iron Gulley grating and frame (state size and grade)	no
L4	03	03.30.70.15	Cast iron Hatch Box Cover (state size)	no
L4	03	03.30.70.20	Cast iron stop tap boxes covers (state size)	no
L4	03	03.30.70.25	Telecoms box cover (state Size)	no
L4	03	03.30.70.30	Security covers & frame for modular security chamber boxes (state size and nature)	no
L4	03	03.30.70.35	Security access modular chamber boxes (state size and nature)	no
L4	03	03.30.70.40	Security access modular chamber box sump base (state size and nature)	no
L4	03	03.30.70.45	Ductile iron channel & gratings combined	no
L4	03	03.30.70.50	Ductile iron channel & gratings combined -fittings	no
L4	03	03.30.70.55	Aquadrain 400w x 200d x 500L	no
L4	03	03.30.70.60	Acodrain Light Duty	no
L4	03	03.30.70.65	Acodrain (state size)	no
L4	03	03.30.70.70	Acodrain Specials	no
L2	03	03.40	Kerbs, Paving, Bricks & Blocks	LS
L3	03	03.40.10	Precast concrete kerbs, edgings and solid channels	LS

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Level	Series	Code	Description	Unit
L4	03	03.40.10.10	Precast concrete kerbs (state size & shape)	m
L4	03	03.40.10.20	Precast concrete kerbs curved (state size & shape)	no
L4	03	03.40.10.30	Precast concrete kerbs specials including curved under 5m radius curved (state size & shape)	no
L4	03	03.40.10.40	Edging Kerb (state size & shape)	m
L4	03	03.40.10.50	Edging Kerb special (state size & nature)	no
L4	03	03.40.10.60	PC Dished channel	m
L4	03	03.40.10.70	Aco Kerb Slot Drainage Block	m
L3	03	03.40.20	Integrated channel and drainage blocks	LS
L4	03	03.40.20.10	Combined secret Channel and perforated kerb 2 part unit (state nature & size) -e.g. Envirokerb or Beany kerb	m
L4	03	03.40.20.20	Combined secret Channel and perforated kerb 2 part unit (state nature & size) -specials	no
L4	03	03.40.20.30	Combined secret Channel and perforated kerb 2 part unit (state nature & size) -gulley units	no
L4	03	03.40.20.40	Combined secret Channel and perforated kerb 2 part unit (state nature & size) - mastic sealant	litre
L4	03	03.40.20.50	Combined secret Channel and perforated kerb 2 part unit (state nature & size) - bedding mortar	kg
L3	03	03.40.30	Block Paviors	per 1000
L4	03	03.40.30.10	Block Paviors (state nature & size) -	per 1000
L4	03	03.40.30.20	Charcon Grassgrid Paving (or similar)	per 1000
L3	03	03.40.40	Paving Slabs	m2
L4	03	03.40.40.10	Paving Slabs (state nature & size) -	m2
L3	03	03.40.50	Bricks	per 1000
L4	03	03.40.50.10	Eng. bricks class A	per 1000
L4	03	03.40.50.20	Eng. bricks class B	per 1000
L3	03	03.40.60	Blocks	m2
L4	03	03.40.60.10	100mm solid concrete blocks	m2
L2	03	03.50	Membranes, Geotextiles, Jointing Materials	LS
L3	03	03.50.10	Membranes & Geotextiles	m2
L4	03	03.50.10.10	Concrete waterproofing system (e.g. Servipak, Bituthene state gauge & nature)	m2
L4	03	03.50.10.20	Primer for Concrete waterproofing system (e.g. Servipak, Bituthene)	m2
L4	03	03.50.10.30	Damp proof membranes (e.g. Visqueen state gauge & nature)	m2
L4	03	03.50.10.40	Geotextile (state grade & use)	m2
L4	03	03.50.10.50	Nicoflex 600 or other warning barrier tape	m2
L3	03	03.50.20	Joint Fillers	LS
L4	03	03.50.20.10	Flexcell (state size)	m2
L4	03	03.50.20.20	Expandafoam Cord (state size)	m2
L4	03	03.50.20.30	Bitumen rubber sealing strip (e.g. Tokstripfor precast manholes & culverts) (state section size & length)	m

Level	Series	Code	Description	Unit
L3	03	03.50.30	Joint sealants	LS
L4	03	03.50.30.10	Sealant (state nature)	litre
L3	03	03.50.40	Waterbars	m
L4	03	03.50.40.10	PVC Water stop (state section size & length)	m
L2	03	03.60	Gabion Baskets, Reinforced Earth Components	no
L3	03	03.60.10	Gabion Baskets	no
L4	03	03.60.10.10	Galvanised Gabion Baskets (State Size)	no
L4	03	03.60.10.20	Galvanised Reno Mattress (State Size)	no
L3	03	03.60.20	Reinforced Earth Components	no
L4	03	03.60.20.10	Reinforced Earth Components (state nature)	no
L2	03	03.70	Fencing & Vehicle Restraint	LS
L3	03	03.70.10	Fencing	LS
L4	03	03.70.10.10	Timber Rail for Highway Boundary Fencing post & rails (record sizes convert to cost per M3)	m3
L4	03	03.70.10.20	Timber panels For Highways Fencing & Noise Barriers	m
L4	03	03.70.10.30	Timber For Highways Fencing & Noise Barriers	m
L4	03	03.70.10.40	Plain fencing wire	m
L4	03	03.70.10.50	Barbed fencing wire	m
L3	03	03.70.20	Vehicle Restraint	LS
L4	03	03.70.20.10	Corrugated Steel vehicle restraint -rail	m
L4	03	03.70.20.20	Posts for Corrugated Steel vehicle restraint	no
L2	03	03.80	Piling Materials	LS
L3	03	03.80.10	Sheet Piles	m2
L4	03	03.80.10.10	Sheet Piles (State Size)	m2
L3	03	03.80.20	Cast insitu concrete Piles	m
L4	03	03.80.20.10	Reinforcement for cast insitu concrete pile	tonne
L4	03	03.80.20.20	Concrete for cast insitu concrete pile - state diameter	m
L3	03	03.80.30	Precast concrete piles	m
L4	03	03.80.30.10	Precast concrete piles state size & nature	m
L3	03	03.80.40	Steel H piles	m
L4	03	03.80.40.10	Steel H piles - state size	m
L3	03	03.80.50	Spiral Steel piles	m
L4	03	03.80.50.10	Spiral Steel piles -state size	m
L3	03	03.80.60	Plastic piles	m
L4	03	03.80.60	Plastic piles - state nature & size	m
L2	03	03.90	Electrical Materials	LS
L3	03	03.90.10	Metal conductors	LS
L4	03	03.90.10.10	Metal electrical cable (state nature & size)	m
L4	03	03.90.10.20	Metal electrical cable -Terminal (state nature & size of termination & cable)	no
L3	03	03.90.20	Metal conductors - Equipment	no
L4	03	03.90.20.10	Switchgear	no
L4	03	03.90.20.20	Feeder Pillars	no
L4	03	03.90.20.30	Lighting column, lantern & luminaire - (state nature & size)	no

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Level	Series	Code	Description	Unit
L4	03	03.90.20.40	Electronic traffic information signs- (state nature & size)	no
L4	03	03.90.20.50	Electronic Variable speed limit signs- (state nature & size)	no
L4	03	03.90.20.60	Other Electronic traffic information signs- (state nature & size)	no
L4	03	03.90.20.70	Miscellaneous equipment (e.g. Transformers)	no
L3	03	03.90.30	Fibre Optic conductors	LS
L4	03	03.90.30.10	Fibre Optic cable (state nature & size)	m
L4	03	03.90.30.20	Fibre Optic cable -Terminal (state nature & size of termination & cable)	no
L3	03	03.90.40	Fibre Optic conductors -Equipment	no
L4	03	03.90.40.10	Signal booster	no
L4	03	03.90.40.20	CCTV camera (state nature)	no
L4	03	03.90.40.30	Miscellaneous equipment	no
L3	03	03.90.50	Containment (ducts taken elsewhere)	m
L4	03	03.90.50.10	Open cable tray	m
L4	03	03.90.50.20	Above ground conduit or ducting	m
L2	03	03.99	Other Materials	LS
L3	03	03.99.10	Other Materials	LS
L4	03	03.99.10.10	Unallocated materials	no
L4	03	03.99.10.20	Arithmetic errors	sum
L1	04	04	Charges	item
L2	04	04.10	Provision of temporary services (non-Mobile)	item
L3	04	04.10.10	Provision of temporary water	item
L4	04	04.10.10.10	Installation of new water service	item
L4	04	04.10.10.20	Charges for water supply	item
L4	04	04.10.10.30	Remove temporary water service on completion of works	item
L3	04	04.10.20	Provision of temporary gas	item
L4	04	04.10.20.10	Installation of new gas service	item
L4	04	04.10.20.20	Charges for gas supply	item
L4	04	04.10.20.30	Provision of temporary gas tank & base	item
L4	04	04.10.20.40	Remove temporary water gas on completion of works	item
L3	04	04.10.30	Provision of temporary electricity	item
L4	04	04.10.30.10	Installation of new electricity service	item
L4	04	04.10.30.20	Charges for electricity supply	item
L4	04	04.10.30.30	Remove temporary water electricity on completion of works	item
L2	04	04.20	Payments to public authorities	item
L3	04	04.20.10	Planning & building regulations fees associated with temporary offices	item
L4	04	04.20.10.10	Planning fees associated with temporary offices	item
L4	04	04.20.10.20	Building regulations fees associated with temporary offices	item
L2	04	04.30	Cancellation charges arising out from compensation event	item
L3	04	04.30.10	Allowable cancellation charges	item
L4	04	04.30.10.10	Restocking charges	item
L4	04	04.30.10.20	Abortive manufacturing costs	item

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Level	Series	Code	Description	Unit
L4	04	04.30.10.30	Abortive delivery costs	item
L2	04	04.40	Payments associated with the temporary use of land and buildings etc.	item
L3	04	04.40.10	Buying or leasing land	item
L4	04	04.40.10.10	Land or building purchase costs	item
L4	04	04.40.10.20	Land or building rent costs	item
L4	04	04.40.10.30	Legal & other fees associated with buying, selling or renting land or buildings for temporary use	item
L4	04	04.40.10.40	Building refurbishment costs associated with first occupying buildings & dilapidations	item
L3	04	04.40.20	Compensation Payments to third parties	item
L4	04	04.40.20.10	Compensation Payments to third parties e.g. for loss of crops	item
L3	04	04.40.30	Royalties	item
L4	04	04.40.30.10	Royalties	item
L3	04	04.40.40	Inspection Certificates	item
L4	04	04.40.40.10	Inspection Certificates	item
L3	04	04.40.50	Charges for access to working areas	item
L4	04	04.40.50.10	Charges for access to working areas	item
L3	04	04.40.60	Facilities for visits to the working areas by others	item
L4	04	04.40.60.10	Facilities for visits to the working areas by others	item
L2	04	04.50	Office supplies and services	item
L3	04	04.50.10	Office supplies and services	item
L4	04	04.50.10.10	Office supplies and services	item
L2	04	04.60	Consumables for Project Manager & Supervisor's office	item
L3	04	04.60.10	Consumables for Project Manager & Supervisor's office	item
L4	04	04.60.10.10	Consumables for Project Manager & Supervisor's office	item
L2	04	04.70	Specialist services	item
L3	04	04.70.10	Specialist services	item
L4	04	04.70.10.10	Specialist services	item
L2	04	04.99	Other Charges	LS
L3	04	04.99.10	Other Charges	LS
L4	04	04.99.10.10	Unallocated charges	item
L4	05	04.99.10.20	Arithmetic errors	sum
L1	05	05	Manufacture & Fabrication	LS
L2	05	05.10	Groundworks, including site clearance, Landscape and ecology	LS
L3	05	05.10.10	Groundworks	LS
L4	05	05.10.10.05	Excavation of acceptable material	m3
L4	05	05.10.10.10	Excavation of Unacceptable material	m3
L4	05	05.10.10.15	Excavation of topsoil	m3
L4	05	05.10.10.20	Excavation of artificial hard material	m3
L4	05	05.10.10.25	Excavation of rock material	m3
L4	05	05.10.10.30	Disposal of acceptable material	m3
L4	05	05.10.10.35	Disposal of Unacceptable material	m3

Level	Series	Code	Description	Unit
L4	05	05.10.10.40	Disposal of Contaminated Unacceptable material including remediation or disposal in licensed tip	m3
L4	05	05.10.10.45	Disposal of topsoil	m3
L4	05	05.10.10.50	Disposal of artificial hard material	m3
L4	05	05.10.10.55	Disposal of rock material	m3
L4	05	05.10.10.60	Deposition of excavated acceptable fill	m3
L4	05	05.10.10.65	Deposition of topsoil	m3
L4	05	05.10.10.70	Deposition of imported granular fill (state type)	m3
L4	05	05.10.10.75	Compaction of fill	m2
L4	05	05.10.10.80	Trimming of formation (state if compaction is included)	m2
L4	05	05.10.10.85	Trimming of slopes of embankments and cuttings	m2
L3	05	05.10.20	Site clearance	LS
L4	05	05.10.20.10	Clear site of vegetation (state Nature)	m2
L4	05	05.10.20.20	Clear site of tree (state Nature & size if enumerated)	m2
L4	05	05.10.20.30	Removal of rubbish	m2
L4	05	05.10.20.40	Grub up drainage or duct (state size, depth & nature)	m
L4	05	05.10.20.50	Grub up inspection chamber (state service, size, depth & nature)	no
L4	05	05.10.20.60	Demolish to original ground level building or other structure (state Nature & size if given)	no
L4	05	05.10.20.70	Demolish to original ground level building or other structure (state Nature & size if given) using specialist methods (e.g. Hydroblast cutting, explosives etc.)	no
L3	05	05.10.30	Landscape and ecology	LS
L4	05	05.10.30.05	Seeding (state nature)	m2
L4	05	05.10.30.10	Turfing (state nature)	m2
L4	05	05.10.30.15	Treatment of existing surfaces for invasive weeds	m2
L4	05	05.10.30.20	Treatment of existing surfaces for invasive fauna	m2
L4	05	05.10.30.25	Provision of pond liners (note bedding & covering where used)	m2
L4	05	05.10.30.30	Planting of Quicks for new hedgerows	m2
L4	05	05.10.30.35	Planting of "Maidens" for new copses	m2
L4	05	05.10.30.40	Planting of other shrubs	m2
L4	05	05.10.30.45	Planting of trees	no
L4	05	05.10.30.50	Relocate Fauna	item
L4	05	05.10.30.55	Relocate Flora	m2
L4	05	05.10.30.60	Protected species barriers (e.g. Newt fencing , badger tunnels)	m
L2	05	05.20	Specialist Foundations	LS
L3	05	05.20.10	Piling	LS
L4	05	05.20.10.05	Establish plant (state nature of pile)	item
L4	05	05.20.10.10	Move plant between pilling sites (state nature of pile)	no
L4	05	05.20.10.15	Remove plant from site (state nature of pile)	item
L4	05	05.20.10.20	Provide steel sheet piles (state type & size of pile)	m2

Level	Series	Code	Description	Unit
L4	05	05.20.10.25	Drive steel sheet piles (state type & size of pile)	m2
L4	05	05.20.10.30	Provide steel H piles (state type & size of pile)	m
L4	05	05.20.10.35	Drive steel H piles (state type & size of pile)	m
L4	05	05.20.10.40	Provide steel spiral piles (state type & size of pile)	m
L4	05	05.20.10.45	Drive steel spiral piles (state type & size of pile)	m
L4	05	05.20.10.50	Provide Precast concrete piles (state type & size of pile)	m
L4	05	05.20.10.55	Drive precast concrete piles (state type & size of pile)	m
L4	05	05.20.10.60	Provide Plastic piles (state type & size of pile)	m
L4	05	05.20.10.65	Drive Plastic piles (state type & size of pile)	m
L4	05	05.20.10.70	Drive steel casing for cast insitu concrete piles (state type & size of pile)	m
L4	05	05.20.10.75	Drill holes for cast insitu concrete pile	m
L4	05	05.20.10.80	Reinforcement for cast insitu concrete pile	tonne
L4	05	05.20.10.85	Concrete for cast insitu concrete pile	m3
L3	05	05.20.20	Reinforced earth structures	LS
L4	05	05.20.20.10	Reinforced earth structures -facing material state nature	m2
L4	05	05.20.20.20	Reinforced earth structures -reinforcement - state nature	m
L4	05	05.20.20.30	Import, place and compact acceptable granular fill in reinforced earth structures	m3
L3	05	05.20.30	Rock Anchors	LS
L4	05	05.20.30.10	Establish plant	item
L4	05	05.20.30.20	Drill holes for rock anchor	m
L4	05	05.20.30.30	Install rock anchor	m
L4	05	05.20.30.40	Tension rock Anchor	no
L4	05	05.20.30.50	Move plant between drilling sites	no
L4	05	05.20.30.60	Remove plant from site	item
L2	05	05.30	Drainage & Ducts	LS
L3	05	05.30.10	Drainage	LS
L4	05	05.30.10.05	Supply & lay pipe up to 300 mm pipe (state nature & depth laid if given)	m
L4	05	05.30.10.10	Supply & lay pipe 300 -900 mm pipe (state nature & depth laid if given)	m
L4	05	05.30.10.15	Supply & lay pipe over 900 mm pipe (state nature & depth laid if given)	m
L4	05	05.30.10.20	Extra Over Supply & lay pipe up to 300 mm pipe for fittings (state nature if given)	no
L4	05	05.30.10.25	Extra Over Supply & lay pipe 300-900 mm pipe for fittings (state nature if given)	no
L4	05	05.30.10.30	Extra Over Supply & lay pipe over 900 mm pipe for fittings (state nature if given)	no
L4	05	05.30.10.35	Road Gulley (state nature if given)	no
L4	05	05.30.10.40	Supply & lay 2 part combined drainage channel and perforated kerb system	m

Level	Series	Code	Description	Unit
L4	05	05.30.10.45	Supply & lay 2 part combined drainage channel and perforated kerb system - extra for specials	no
L4	05	05.30.10.50	Concrete chambers internal diameter not exceeding 1050mm (state actual diameter & depth)	no
L4	05	05.30.10.55	Concrete chambers internal diameter exceeding 1050mm (state actual diameter & Depth)	no
L4	05	05.30.10.60	Brickwork Chambers state size	no
L3	05	05.30.20	Ducts	LS
L4	05	05.30.20.10	Duct up to 300mm (state nature & depth laid if given)	m
L4	05	05.30.20.20	Rectangular Inspection Chamber (state internal dimensions of chamber & depth)	no
L4	05	05.30.20.30	Security Inspection Chamber (state internal dimensions of chamber & depth)	no
L4	05	05.30.20.40	Valve pit boxes (state nature & size)	no
L4	05	05.30.20.50	2 way ducts up to 300mm (state nature & depth laid if given) laid in one trench	m
L4	05	05.30.20.60	4 way ducts up to 300mm (state nature & depth laid if given) laid in one trench	m
L4	05	05.30.20.70	6 way ducts up to 300mm (state nature & depth laid if given) laid in one trench	m
L3	05	05.30.30	Cross Carriageway Ducts	m
L4	05	05.30.30.10	Cross Carriageway Duct up to 300mm (state nature & if driven or bored)	m
L4	05	05.30.30.20	2 way Cross Carriageway Duct up to 300mm (state nature & if driven or bored)	m
L4	05	05.30.30.30	4 way Cross Carriageway Duct up to 300mm (state nature & if driven or bored)	m
L4	05	05.30.30.40	6 way Cross Carriageway Duct up to 300mm (state nature & if driven or bored)	m
L3	05	05.30.40	Drainage channels	LS
L4	05	05.30.40.10	Combined secret Channel and perforated kerb 2 part units (state nature & size)	m
L4	05	05.30.40.20	Extra over Combined secret Channel and perforated kerb 2 part units (state nature & size) for specials including junctions	no
L4	05	05.30.40.30	Extra over Combined secret Channel and perforated kerb 2 part units (state nature & size) for gullies	no
L4	05	05.30.40.30	Drainage channel slip formwork establish/move plant	no
L4	05	05.30.40.30	Drainage channel slip formwork	m
L4	05	05.30.40.30	Drainage channel slip form concrete dished channel	m3
L2	05	05.40	Structures including Gantries	LS
L3	05	05.40.10	Concrete foundations	LS
L4	05	05.40.10.10	Concrete foundations	m3
L4	05	05.40.10.20	Concrete bearing plinths	no
L4	05	05.40.10.30	Formwork	m2

Level	Series	Code	Description	Unit
L4	05	05.40.10.40	Reinforcement	tonne
L4	05	05.40.10.50	Gantry anchorages (including bolts)	no
L4	05	05.40.10.60	Bitumen emulsion to concrete surfaces at any angle	m2
L3	05	05.40.20	Concrete Superstructures	LS
L4	05	05.40.20.05	Concrete suspended slabs	m3
L4	05	05.40.20.10	Concrete for parapets	m3
L4	05	05.40.20.15	Horizontal Formwork to deck soffits	m2
L4	05	05.40.20.20	Sloping Formwork to deck soffits	m2
L4	05	05.40.20.25	Vertical Formwork to deck edges and parapet	m2
L4	05	05.40.20.30	Reinforcement	tonne
L4	05	05.40.20.35	Parapet anchorages (including bolts)	no
L4	05	05.40.20.40	Establish crane and lifting equipment for bridge beams	item
L4	05	05.40.20.45	Supply only bridge beams (describe size and nature)	m
L4	05	05.40.20.50	Deliver and Install bridge beams	m
L4	05	05.40.20.55	Dismantle crane and lifting equipment for bridge beams and remove from site	item
L4	05	05.40.20.60	Water proofing system to concrete surfaces horizontal	m2
L4	05	05.40.20.65	Water proofing system to concrete surfaces 5 -85 degrees to horizontal (state if curved)	m2
L4	05	05.40.20.70	Water proofing system to concrete surfaces vertical	m2
L3	05	05.40.30	Steel Superstructures	LS
L4	05	05.40.30.10	Structural steelwork (Tonne)	tonne
L4	05	05.40.30.20	Deck soffit sheeting (state nature & size)	m2
L4	05	05.40.30.30	Deck edge sheeting (state nature & size)	m2
L3	05	05.40.40	Movement joints	m
L4	05	05.40.40.10	Designed contraction joint in reinforced concrete structures at day joints (state nature& size)	m
L4	05	05.40.40.20	Expansion joint including sealant (state nature& size)	m
L3	05	05.40.50	Bearings & deck joints	no
L4	05	05.40.50.10	Bearings fixed to sub structure (state nature& size)	no
L4	05	05.40.50.20	Joint through pavement at junctions between decks or between deck and substructure.	m
L3	05	05.40.60	Gantries	tonne
L4	05	05.40.60.10	Fabricate gantries (state span in Metres & number of lanes)	tonne
L4	05	05.40.60.20	Transport to site & install gantry (state nature & size)	tonne
L4	05	05.40.60.30	CCTV posts (state nature& size)	tonne
L4	05	05.40.60.40	Cantilever masts (state nature& size)	tonne
L3	05	05.40.70	Gabions	m3
L4	05	05.40.70.10	Galvanised Gabion Baskets (State Size)	m3
L4	05	05.40.70.20	Galvanised Reno Mattress (State Size)	m3
L2	05	05.50	Surfacing & kerbs	LS
L3	05	05.50.10	Flexible Pavement	m3
L4	05	05.50.10.10	Sub base (state nature & depth)	m3
L4	05	05.50.10.20	Base course (state nature & depth)	m3

Level	Series	Code	Description	Unit
L4	05	05.50.10.30	Binder course (state nature & depth)	m3
L4	05	05.50.10.40	Surface course (state nature & depth)	m3
L4	05	05.50.10.50	Seal joints in road construction (state nature & depth)	m
L4	05	05.50.10.60	Planing & cold milling of flexible Pavement	m3
L4	05	05.50.10.70	Tack coat existing pavement to receive new flexible surfacing	m2
L3	05	05.50.20	Rigid Pavement	LS
L4	05	05.50.20.10	Establish Concrete train or slip former	item
L4	05	05.50.20.20	Lay & strike road forms	m
L4	05	05.50.20.30	Move Concrete train or slip former within site	no
L4	05	05.50.20.40	Dismantle & remove from site Concrete train or slip former	item
L4	05	05.50.20.50	Cement bound granular material sub base (state nature & depth)	m3
L4	05	05.50.20.60	Pavement quality concrete (state nature & depth)	m3
L3	05	05.50.30	Kerbs & blocks	LS
L4	05	05.50.30.10	Concrete foundations for kerbs	m
L4	05	05.50.30.20	Concrete foundations for edgings	m
L4	05	05.50.30.30	Precast concrete kerbs or channels (state nature & size)	m
L4	05	05.50.30.40	Precast concrete edgings (state nature & size)	m
L4	05	05.50.30.50	Paving slabs or flags (state nature & size)	m2
L4	05	05.50.30.60	Paviors (state nature & size)	m2
L4	05	05.50.30.70	Paviors specials - (state nature & size)	m2
L2	05	05.60	Electrical Installations	LS
L3	05	05.60.10	Metal conductors	LS
L4	05	05.60.10.10	Metal electrical cable laid in trench or through duct (state nature & size)	m
L4	05	05.60.10.20	Metal electrical cable -Terminations (state nature & size of termination & cable)	no
L3	05	05.60.20	Metal conductors - Equipment	no
L4	05	05.60.20.10	Switchgear	no
L4	05	05.60.20.20	Feeder Pillar	no
L4	05	05.60.20.30	Lighting column, lantern & luminaire - (state nature & size)	no
L4	05	05.60.20.40	Electronic traffic information signs- (state nature & size)	no
L4	05	05.60.20.50	Electronic Variable speed limit signs- (state nature & size)	no
L4	05	05.60.20.60	Other Electronic traffic information signs- (state nature & size)	no
L4	05	05.60.20.70	Miscellaneous equipment (e.g. Transformers)	no
L3	05	05.60.30	Fibre Optic conductors	LS
L4	05	05.60.30.10	Fibre Optic cable laid in trench or through duct (state nature & size)	m
L4	05	05.60.30.20	Fibre Optic cable -Terminations (state nature & size of termination & cable)	no
L3	05	05.60.40	Fibre Optic conductors -Equipment	no
L4	05	05.60.40.10	Signal booster	no
L4	05	05.60.40.20	CCTV camera (state nature)	no

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Level	Series	Code	Description	Unit
L4	05	05.60.40.30	Miscellaneous equipment	no
L3	05	05.60.50	Containment (ducts taken elsewhere)	m
L4	05	05.60.50.10	Open cable tray	m
L4	05	05.60.50.20	Above ground conduit or ducting	m
L2	05	05.70	Signs, Signals and road markings	LS
L3	05	05.70.10	Signs	no
L4	05	05.70.10.10	Post & Sign face not exceeding 1M2	no
L4	05	05.70.10.20	Posts & Sign 1.01- 4.00M2	no
L4	05	05.70.10.30	Posts & Sign face exceeding 4.01M2	no
L3	05	05.70.20	Signals	no
L4	05	05.70.20.10	Loop detector	no
L4	05	05.70.20.20	Traffic signal	no
L3	05	05.70.30	Road markings	LS
L4	05	05.70.30.10	Road studs (state nature)	no
L4	05	05.70.30.20	Road lining (state nature)	m
L4	05	05.70.30.30	Road marking symbols (state nature)	no
L2	05	05.80	Fencing & Road restraint	LS
L3	05	05.80.10	Fencing	m
L4	05	05.80.10.10	Timber highway boundary fencing (state nature & size)	m
L4	05	05.80.10.20	Chain link fencing (state nature & size)	m
L4	05	05.80.10.30	Metal palisade fencing (state nature & size)	m
L4	05	05.80.10.40	Environmental noise barrier	m
L4	05	05.80.10.50	Environmental fauna barrier (e.g. Newt fence)	m
L3	05	05.80.20	Gates	no
L4	05	05.80.20.10	Farm field access gate (state nature & size)	no
L4	05	05.80.20.20	Gate for Chain link fencing (state nature & size)	no
L4	05	05.80.20.30	Gate for Metal palisade fencing (state nature & size)	no
L4	05	05.80.20.40	Gate for Environmental noise barrier	no
L3	05	05.80.30	Road restraint	LS
L4	05	05.80.30.05	Vertical concrete barrier	m
L4	05	05.80.30.10	Vertical concrete barrier -terminations, connections to existing structures etc.	m
L4	05	05.80.30.15	Corrugated beam	m
L4	05	05.80.30.20	Open box beam	m
L4	05	05.80.30.25	Rectangular hollow section	m
L4	05	05.80.30.30	Corrugated beam -termination	no
L4	05	05.80.30.35	Open box beam-termination	no
L4	05	05.80.30.40	Rectangular hollow section-termination	no
L4	05	05.80.30.45	Corrugated beam -crash cushion	no
L4	05	05.80.30.50	Open box beam--crash cushion	no
L4	05	05.80.30.55	Rectangular hollow section--crash cushion	no
L4	05	05.80.30.60	Metal Parapet (State nature & Height)	m
L4	05	05.80.30.65	Metal Parapet Terminations & connections to road restraint etc. (State nature)	no

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Level	Series	Code	Description	Unit
L2	05	05.99	Other Manufacture & Fabrication	LS
L3	05	05.99.10	Other Manufacture & Fabrication	LS
L4	05	05.99.10.10	Unallocated Manufacture & Fabrication Charges (describe)	item
L4	05	05.99.10.20	Arithmetic errors	sum
L1	06	06	Design	LS
L2	06	06.10	Civil Engineering Design	LS
L3	06	06.10.10	Civil Engineering Design	LS
L4	06	06.10.10.10	Design Manager	hr
L4	06	06.10.10.20	Engineer (state type)	hr
L4	06	06.10.10.30	Setting out materials, materials tests & equipment charges	item
L2	06	06.20	Electrical Engineering Design	LS
L3	06	06.20.10	Electrical Engineering Design	LS
L4	06	06.20.10.10	Design Manager	hr
L4	06	06.20.10.20	Engineer (state type)	hr
L4	06	06.20.10.30	Materials tests & equipment charges	item
L2	06	06.30	Landscape & Environmental Design	hr
L3	06	06.30.10	Landscape & Environmental Design	hr
L4	06	06.30.10.10	Design Manager	hr
L4	06	06.30.10.20	Engineer (state type)	hr
L2	06	06.99	Other Design	LS
L3	06	06.99.10	Other Design	LS
L4	06	06.99.10.10	Unallocated design costs	item
L4	06	06.99.10.20	Arithmetic errors	sum
L1	07	07	Insurance	item
L2	07	07.10	Insurance - included in delivery partner fee percentage	item
L3	07	07.10.10	Insurance - included in delivery partner fee percentage	item
L4	07	07.10.10.10	Insurance - included in delivery partner fee percentage	item
L2	07	07.20	Insurance - excesses	item
L3	07	07.20.10	Insurance - expenditure on items below minimum claim excess	item
L4	07	07.20.10.10	Insurance excesses - damaged plant	item
L4	07	07.20.10.20	Insurance excesses - other than damaged plant	item
L2	07	07.99	Other Insurance	LS
L3	07	07.99.10	Other Insurance	LS
L4	07	07.99.10.10	Unallocated items	item
L4	07	07.99.10.20	Arithmetic errors	sum
L1	09	09	Other	LS
L2	09	09.99	Other	LS
L3	09	09.99.10	Other - recoverable cost	LS
L4	09	09.99.10.10	Unallocated items	item
L4	09	09.99.10.20	Arithmetic errors	sum
L3	09	09.99.20	Other - non recoverable cost	LS
L4	09	09.99.20.10	Other - non recoverable cost	item
L4	09	09.99.20.20	Arithmetic errors	sum

EMPLOYER'S WORKS INFORMATION SECTION

Annex P

Scope

Annex P Smart Motorway Programme: Scope

The Client Scheme Requirements for the scheme are detailed below:

M62 J10-12

Scheme Objectives – Strategic Case & Transport Objectives	Support and enhance the role of the current M62 links (between Junction 10 and Junction 12) as a major national and inter-urban regional transport artery by: ▪ Contributing to delivery of the overarching Programme Objectives (including the Strategic Case and Transport Objectives): i. To support and enhance the role of the current motorway network as a major national and inter-urban regional transport artery; ii. To deliver a consistent operational concept that is easily understood by customers, operators and maintainers; iii. To deliver a Programme of interventions which, as a minimum, do not increase the average number of FWI casualties per billion vehicle miles per annum and manage the risk to road workers so far as is reasonably practicable (SFAIRP), using Smart Motorways techniques. At a scheme level, delivery teams shall determine if additional safety mitigation measures may be justifiably deployed that would provide an improved contribution to Highways England's safety targets. Such measures shall be endorsed by PSCRG; iv. To reduce congestion and to develop solutions that provide additional capacity, increase journey time reliability and ensure the safe and economic operation of the motorway network; v. To make best use of existing infrastructure providing additional capacity within the existing highway boundary, other than in exceptional circumstances; vi. To have interventions designed to suit the requirements of ongoing maintenance, the needs of Highways England's Operations Directorate, and minimise whole life costs; vii. All interventions shall provide high value for money against whole life costs in accordance with the Department's WebTAG guidance (BCR adjusted for non-monetised impacts > 2); viii. All interventions should aim to improve on New Approach to Appraisal (NATA) Appraisal Summary Table sub-criteria assessment results produced during the Options Phase where possible within the constraints of affordability; ix. To deliver interventions that supports the delivery of the Government's transport policy objectives. ▪ Delivery of the Operational Concept, as validated against requirements of IAN161/15.
Status	Development – Preliminary Design (PCF Stage 3)
Project Description – Scope Description	Implement a SMART motorway toolkit intervention along 15.8km of live motorway, between M62 J10 (M6 Croft interchange) and J12 (M60 Winton interchange). Concept of operations to dovetail into adjacent SMART links (M60 Manchester Smart Motorway scheme to the east, and M6 J21a-26 scheme to the west).
Project Scope Assumptions	▪ Through Junction Running (TJR) at J11 ▪ No land take required
Project Exclusions	▪ TJR not proposed at all junctions – already narrow lanes and hard shoulder so TJR would be very difficult. ▪ Presumption that scheme does not have "significant" environmental effects, so a formal Environmental Statement not required. ▪ Rectification of underlying geotechnical defect (blast furnace steel slag)
Interfaces	Transport for the North, Transport for Greater Manchester, Warrington

	Borough Council, St Helens Council, Wigan Council, Salford City Council, Network Rail, Statutory Environmental Bodies (Environment Agency, Natural England) ▪ Current projects: M60 J8-20 Smart Motorway (M62 J12) ▪ Proposed projects: SMP Tranche 4 (M6 J21a-26, M60 J24-4, M56 J6-8), M62 J20-25 ▪ Technology Enhancements (including Motorway to Motorway technology pilot)
Project Risks and QRA	▪ Structures – serviceability and protection of existing structures. ▪ Air Quality – entire scheme length lies within AQMA. Proposed Clean Air Zone (CAZ) in Manchester. ▪ Development Consent Order (DCO) – marginal land take ▪ Environmental Statement may be required, if determined that "significant" environmental effects (early engagement and agreement required with Natural England and Environment Agency due to 506 potentially sensitive receptors and protected species).

EMPLOYER'S WORKS INFORMATION SECTION

Annex Q

Scheme Budget

Annex Q Scheme Budget

[To follow]