NAME OF TENDERER:

LONDON BOROUGH OF BARNET
HIGHWAYS SERVICE

HIGHWAYS PLANNED MAINTENANCE & IMPROVEMENTS CONTRACT
2007 - 2012

Contract No 50069

Tender Document

Mike Freestone BA, IEng, FIHIE, FIHT, MaPS
Head of Environment and Transport
Building 4
North London Business Park
Oakleigh Road South
London
N11 1NP
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FORM OF TENDER

The works: A number of planned maintenance and improvement projects to highway and other assets for which the London Borough of Barnet is the responsible authority.

To

The Mayor and Burgesses of the LONDON BOROUGH OF BARNET acting by the Council of the said borough (hereinafter called the “Employer”)
Town Hall
The Burroughs
Hendon
London
NW4 4BG

We offer to provide the Works, as instructed in Work Packages issued in accordance with the Contract Data for sums to be determined in accordance with the conditions of contract.

You may accept this offer on or before………………………………………………

Yours faithfully

Signed ……………………………………………………………………………………

Name ……………………………………………………………………………………

Position ………………………………………………………………………………..

On behalf of ………………………………………………………………………….. (the Contractor)

Address ………………………………………………………………………………..

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

Date …………………………………………………………………………………..
FORM OF AGREEMENT BY DEED

This agreement is made on the …………………..day of ……………..2006 between

The Mayor and Burgesses of London Borough of Barnet (the Employer/Council) of Town Hall, The Burroughs, Hendon, London, NW4 4BG

and

………………………………………………………………………………………………………

of ……………………………………………………………………………………………

…………………………………………………………………………………………

(where the Contractor is a company this should be the company’s Registered Address)

The Employer wishes to have the following works provided:

A number of planned maintenance and improvement projects to highway and other assets for which the London Borough of Barnet is the responsible authority.

1 The Contractor will undertake the Works, as instructed in Work Packages issued in accordance with this contract for sums to be determined in accordance with the conditions of contract identified in the Contract Data.

2 The Employer will pay the Contractor the amounts due for the Work carried out as instructed in Work Packages as instructed and in accordance with the conditions of contract identified in the Contract Data.

3 The documents forming part of this contract are the:

- this tender document including:
  - the completed Form of Agreement by Deed
  - the completed Certificate of Non-Collusive Tendering
  - the completed Contract Data Part Two
  - the Contractor’s tendered Price List
  - the Contractor’s tender quality submission, and
- details of the Contractor’s insurance policies
- a completed Form of Performance Bond
- a completed Form of Parent Company Guarantee (if appropriate), and
- the Employer’s letter of acceptance.
IN WITNESS WHEREOF THIS AGREEMENT HAS BEEN EXECUTED AS A DEED THE DAY AND YEAR FIRST BEFORE WRITTEN:

The Common Seal of
THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF BARNET was hereunto affixed in the presence of:

____________________________________
Mayor

____________________________________
Borough Solicitor

The Common Seal of
[CONTRACTOR] was hereunto affixed in the presence of:

____________________________________
Director

____________________________________
Director/Company Secretary
ANTI-COLLUSION CERTIFICATE

1. We certify that this Tender is made in good faith, and that we have not fixed or adjusted the amount of the Tender by or under or in accordance with any agreement or arrangement with any other person. We also certify that we have not and we undertake that we will not before the hour and date specified for the return of this tender for the Work:-

   (i) (a) communicate to any person other than The London Borough of Barnet or a person duly authorised by them in that behalf the amount or approximate amount of the Tender or proposed Tender, except where the disclosure, in confidence, of the approximate amount of the Tender was necessary to obtain insurance premium required for the preparation of the Tender;

       (b) enter into any agreement or arrangement with any person that they shall refrain from tendering that they shall withdraw any Tender once offered or vary the amount of any Tender to be submitted;

   (ii) pay, give or offer to pay or give any sum of money or other valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other Tender or proposed Tender for the work, any act or thing of the sort described at (i)(a) or (b) above.

2. We further certify that the principles described in paragraphs 1(i) and (ii) above have been, or will be, brought to the attention of all subcontractors, suppliers and associated companies providing services or materials connected with the Tender and any contract entered into with such subcontractors, suppliers or associated companies will be made on the basis of compliance with the above principles by all parties.

3. In this certificate, the word ‘person’ includes any persons and any body or association, corporate or unincorporated; ‘any agreement or arrangement’ includes any transaction, formal or informal and whether legally binding or not; and ‘the Work’ means the work in relation to which this Tender is made.

Signature……………………………………………………………………………………………………

In capacity of………………………………………………………………………………………………

(Duly authorised to sign tenders and acknowledge the contents of the Anti-Collusion Certificate)

Dated this ........................................day of ........................................2006

for and on behalf of ..........................................................………………………………………

Postal Address…………………………………………………………………………………………

...........................................................................................................................................

Telephone No............................Fax No.................................
DRAFT FORM OF BOND FOR HIGHWAYS PLANNED MAINTENANCE & IMPROVEMENTS CONTRACT

BY THIS BOND WE ..........whose registered office is situate at;......... hereinafter called “the Contractor” and ........whose registered office is situate at........ (hereinafter called the Surety”) are jointly and severally bound to the MAYOR AND BURGESSES of the LONDON BOROUGH OF BARNET Town Hall The Burroughs Hendon London NW4 4BG (hereinafter referred to as “the Council”) in the sums of £... the payment of which sums the Contractor and the Surety bind themselves their successors and assigns jointly and severally by these presents

WHEREAS by a Contract bearing even date with this Bond and made between the Contractor of the one part and the Council of the other part the Contractor contracted with the Council to execute perform and complete the Works and things mentioned therein in such manner and within such time and subject to such conditions and stipulations as mentioned in the said Contract.

NOW THE CONDITION of the above written Bond is such that if the Contractor or their successors or assigns shall duly perform and observe all the terms conditions and stipulation of the said Contract on the Contractor's part to be observed performed fulfilled according to the true purport intent and meaning thereof and if on default by the Contractor the Surety shall satisfy and discharge the damages sustained by the Council thereby up to the amount of the written Bond then this obligation shall be null and void but otherwise shall be and remain in force and effect but no alteration of the terms of the said Contract made by agreement between the Council and the Contractor or the giving by the Council of any extension of time for the performing of the Contract or anything therein mentioned or contained and on the part of the Contractor to be performed or fulfilled or any other forgiveness of forbearance on the part of the Council to the Contractor or its successors or assigns shall not in any way release the Surety from any liability under the above-written Bond.

Sealed with our respective seals and dated this day of 2006

THE COMMON SEAL of the above Bounden Surety was hereto affixed in the presence of: )

Director

Secretary

THE COMMON SEAL )
hereto affixed in the presence of: )

Tender Document (v1)
FORM OF PARENT COMPANY GUARANTEE

THIS DEED OF GUARANTEE is made the ................day of......................... 2006

BETWEEN:

Whose registered office is situated at

(hereinafter referred to as the Guarantor) of the one part and

the

MAYOR AND BURGESSES of the LONDON BOROUGH OF BARNET Town
Hall The Burroughs Hendon London NW4 4BG (hereinafter referred to as
“the Council” or “the Employer”)

WHEREAS

(i) This Guarantee is supplemental to a contract dated ....... (“the
Contract”) and made between ...................................... company
registration number ..................of or whose registered office is situated at
.............................................. (“the Contractor”) and the Employer
whereby the Contractor has agreed to carry out the Works in such
manner and within such time and subject to such terms conditions and
stipulations as described in the Contract.

(ii) The Contractor is a subsidiary company of the Guarantor.

(iii) The Guarantor has agreed to guarantee the due and proper
performance of the Contract in the manner hereinafter appearing
NOW IT IS AGREED AS FOLLOWS:

1. If any sums are due and owing to the Employer by the Contractor pursuant to the terms of the contract and there is any default in any payment of such sums the Guarantor shall forthwith on first demand by the Employer unconditionally pay to the Employer in full the monies which are due to them and unpaid by the Contractor together with all costs and expenses which the Employer may incur in enforcing this Guarantee.

2. If the Contractor (unless relieved from the performance by any clause of the Contract or by statute or by the decision of a tribunal of competent jurisdiction) shall in any respect fail to perform the service or commit any breach of its obligations under the contract or shall cease to exist, the Guarantor shall indemnify the Employer against all damages, costs, claims, losses, demands, liabilities and expenses which may be suffered or incurred by the Employer by reason of any default on the part of the Contractor in performing and observing the terms and conditions of the contract and in particular such costs and expenses as may be incurred as a result of a third party providing all or any part of the service by reason of a failure by the Contractor to provide the Work in accordance with the terms of the contract.

3. The Guarantor shall not be discharged from this Guarantee nor shall its liability under this Guarantee be affected or impaired by any agreement, conduct or forbearance between or afforded to the Contractor by the Employer. The Employer shall not be obliged to require payment from the Contractor before enforcing the terms of this Guarantee and the Guarantor shall be treated in all respects as being jointly and severally liable with the Contractor for all liabilities obligations and undertakings of the Contractor as provided in the contract.

4. This Guarantee shall remain in full force and effect until all moneys and liabilities now or hereafter due and owing or incurred by the Contractor to the Employer have been satisfied in full and this Guarantee is in addition to and not in substitution for any other Guarantee, undertaking, indemnity, security or other obligation given or owing to the Employer in respect of sums due or liabilities arising pursuant to the terms of the contract.

5. If any monies shall become payable under or in respect of this Guarantee the Guarantor shall not, so long as any monies due and owing by the Contractor to the Employer under the terms of the contract remain unpaid:

(a) in respect of the amounts paid by the Guarantor under this Guarantee seek to enforce repayment by subrogation or otherwise,
(b) in the event of the insolvency, winding up, liquidation or dissolution of the Contractor, prove in competition with the Employer in respect of any monies owing to the Guarantor by the Contractor on any account whatsoever but will give to the Employer the benefit of any such proof and all monies to be so received in respect thereof.

6. All demands made by the Employer under this Guarantee shall be sent to the Guarantor at the address set out above or such other address as may be notified by the Guarantor to the Employer. Such demand shall subject to proof to the contrary be deemed to have been received by Guarantor, if sent by prepaid first class post, on the second business day after the date of posting.

7. No failure to exercise and no delay in exercising on the part of the Employer any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege preclude any other or further exercise thereof, or exercise of any other right, power or privilege. The rights and remedies provided herein are cumulative and exclusive of any rights or remedies provided by the law.

8. The Guarantor hereby warrants and represents to the Employer that it has full power and authority to enter and perform its obligations under this Guarantee.

9. This Guarantee shall remain in full force and effect notwithstanding any change in the constitution of the Guarantor, the Contractor or the Employer.

10. This Guarantee shall be governed by and construed in accordance with the laws of England and shall be subject to the exclusive jurisdiction of the English Courts.

IN WITNESS WHEREOF this Guarantee has been executed and delivered as a deed the day and year first before written.

SIGNED AS A DEED by the Guarantor acting by a director and its company secretary or two directors:

................................................................. (Director name & signature)

................................................................. (Secretary/Director name & signature)
CONTRACT DATA PART ONE – Data provided by the Employer

The Data which will apply to all work under the Framework Contract is

- The conditions of this contract are the clauses of the NEC3 Framework Contract (June 2005) as amended and extended by the following:

1. All uses of the word “Supplier” are deleted and replaced with the word “Contractor”.

2. Clause 11.2 (5) is deleted.

3. Clause 21 is deleted in its entirety.

4. The existing Clause 22.1 is deleted and replaced with the following text:

   “After the Employer selects the Contractor, he notifies the Contractor of his selection and the Parties follow the Package Order Issue Procedure.

5. Clause 22.2 is deleted.

6. Clause 22.3 is deleted.

7. Clause 90 is deleted in its entirety and replaced as follows:

   90.1 The Employer may terminate his obligations under this contract only after notifying the Contractor not less than two calendar months before doing so.

   90.2 The Contractor may terminate his obligations under this contract only after notifying the Employer not less than twelve calendar months before doing so.

8. The following Clauses are added to Section 9 of the Framework Conditions of Contract:

   Reasons for termination 91

   91.1 The Contractor may terminate after a period of six months has passed since the Employer last issued a Package Order to him.

   91.2 The Employer may terminate for any reason.
CONTRACT DATA PART ONE – Data provided by the Employer

Procedures on termination

92.1 After termination,

- the Employer may not issue a Package Order, and
- the Contractor completes Work Packages ordered before the date of termination.

92.2 If the Contractor terminates other than in accordance with the requirements of this contract, the Contractor will be responsible for all consequential loss to the Employer.

9. The additional conditions of contract stated below are part of this contract.

Z1. Price adjustment for inflation

**Defined Terms**

Z1.1 (a) The Base Date (B) is the latest available index before the base date.

(b) The Latest Index (L) is the latest available index on the 31st March 2008 and yearly thereafter.

(c) The Price Adjustment Factor is the total of the products of each of the proportions stated in the Contract Data multiplied by (L-B)/B for the index linked to it.

**Price Adjustment Factor**

The Employer applies the Price Adjustment Factor when preparing each Work Package Price List. If an index is changed after it has been used in calculating a Price Adjustment Factor that has been applied in preparing a Work Package Price List, the calculation is repeated and a correction included in payments due for the respective Work Package.

No further price adjustments for inflation are made to the prices in the Work Package Price List.

Z1.3 The proportions used to calculate the Price Adjustment Factor are

0.40 Linked to the index for labour
CONTRACT DATA PART ONE – Data provided by the Employer

0.20 Linked to the index for civil engineering Equipment
0.10 Linked to the index for coated roadstone for road pavements and bituminous products generally
0.10 Linked to the index for fuel for Equipment to which the DERV Fuel Index will be applied
0.05 Linked to the index for aggregates
0.05 Linked to the index for cements
0.10 non-adjustable
1.00

The base date for indices is the Contract Date

The indices are those prepared by the Department of Trade and Industry, included in the “Monthly Bulletin of Indices 1990.”

Z2. Changes in the Law

Z2.1 If either Party believe that a change in the law, which occurs after the Contract Date, could affect this contract in any way he notifies the other Party. The Employer may instruct the Contractor to provide quotations to take account of such changes.

Z3. Parent company guarantee

Z3.1 If a parent company owns the Contractor, the Contractor gives to the Employer a guarantee by the parent company (or another company whose assets are sufficient) of the Contractor’s performance in the form set out in the tender document. If the guarantee was not given by the Contract Date, it is given to the Employer within four weeks of the Contract Date.

Z4. Performance bond

Z4.1 The Contractor gives the Employer a performance bond, provided by a bank or insurer which the Employer has accepted, for the amount stated in the Contract Data and in the form set out in the tender document. A reason for not accepting the bank or insurer is that its commercial position is not strong enough to carry the bond. If the bond was
CONTRACT DATA PART ONE – Data provided by the Employer

not given by the Contract Date, it is given to the Employer within four weeks of the Contract Date.

Z5. The Contracts (Rights of Third Parties) Act 1999

Z5.1 A person or organisation who is not one of the Parties may enforce a term of this contract, or any of the terms of any Work Package instructed by it, under the Contracts (Rights of Third Parties) Act 1999 only if the term and the person or organisation is stated in the Contract Data.

Z6. Recovery of monies

Z6.1 When under the contract any sum of money is recoverable from or payable by the Contractor such sum may be deducted from or reduced by the amount of any sum or sums then due or which at any time after may become due to the Contractor under this contract or any other contract with the Employer.

Z7. Preventing corruption

Z7.1 The Contractor does not:

- offer or give to any person in the service of the Employer any gift or consideration of any kind as an inducement or reward in relation to the obtaining or execution of this contract or any other contract with the Employer or for showing favour or disfavour to any person in relation to this contract or any other contract with the Employer, or

- enter into this contract or any other contract with the Employer if, in connection with this contract or any such other contract, commission has been paid or an agreement for the payment of commission has been made by him or on his behalf or to his knowledge, or

- commit any offence under the Prevention of Corruption Acts 1889-1916 or give any fee or reward the receipt of which is an offence under Section 117(2) of the Local Government Act 1972.
Z8. Dealing with Statutory Undertakers’ plant and apparatus

**Definition of a statutory undertaker**

**Z8.1** A statutory undertaker is any person who has a statutory right or a right pursuant to a licence granted under any statute to place or maintain any apparatus (including any pipe, conduit, sewer, drain, or tunnel) on, under, or over any part of any Site or to inspect, adjust, repair, alter, renew, reposition or remove such apparatus.

**Z8.2** The **Employer** compiles and provides in each Work Package all the information, concerning any statutory body’s apparatus which is expected to be affected by work carried out under that Work Package, that the statutory body has provided to him and:

- identifies any measures, which need to be taken as a consequence of or in order to facilitate the Work Package, with the statutory body;

- settles a specification, for any measures which may need to be taken and determines by whom those measures are to be taken, with the statutory body;

- co-ordinates the taking of any such measures and the carrying out of any work with the statutory body and the **Contractor**

- pays the statutory body’s costs in respect of those measures

- notifies the **Contractor** of any notice or other waiting periods required in relation to the measures agreed under this clause.

Z9. Extension of the contract

**Z9.1** The **Employer** retains the exclusive right to offer a single two-year extension to the contract and decides whether or not to extend at the end of the third year. The **Employer** considers the performance of the Contractor as measured by the Key Performance Indicators included in the incentive schedule and his own monitoring, when deciding whether or not to offer an extension to
Z9.2 If the Employer offers any extension of the contract and the Contractor accepts the offer in writing, the Contractor continues to provide the works under the same terms and conditions as those of the original contract period and the end date is amended accordingly.

Z9.3 The Contractor has no redress or claim against the Employer if the option to extend is not exercised for any reason.

Z10. The use of Equipment

Z10.1 The Contractor uses Equipment that is either owned by him, or hired under a simple hire contract (not hire-purchase) which contains a clause permitting the Contractor to assign the benefits of the contract to the Employer.

Z10.2 The Contractor keeps his Equipment in good and serviceable repair and in such condition as is commensurate with the proper performance of the Works and has standby equipment available for use in the event of breakdowns.

Z10.3 The Contractor ensures that all Equipment that is eligible is entered on the Driver and Vehicle Licensing Agency’s (DVLA) Off-Road Register and clearly displays its registration number along with the details of the Employer and the Contractor.

Z10.4 The Contractor does not use any Equipment bearing any advertising matter of any sort without the prior written consent of the Employer.

Z11. Water supplies

Z11.1 The Contractor is responsible for making his own arrangements with the appropriate water company for obtaining mains water for the Works, complying with all the local conditions regarding the use of water and providing constant attendance when
CONTRACT DATA PART ONE – Data provided by the Employer

water is being drawn-off any hydrant. The Contractor determines, and works in accordance with, the London Fire and Civil Defence Authority’s requirements regarding the use of hydrants to supply mains water to the Works, including abstraction methods, receiving apparatus, draw-off rates and times.

Z12. Confidentiality

Z12.1 The Contractor

- has the right to use any material relating to this contract only for the purposes of Providing the Works and may make this right available to subcontractors
- returns all material relating to the Works to the Employer within one month of the end date.
- does not disclose information obtained in connection with this contract to any other person without the Employer's written consent unless required to do so by law, in which case the Contractor shall inform the Employer before supplying the requested information.

Z13. Best value

Z13.1 The Employer has a statutory duty to provide Best Value which includes the need for continuous improvement in standards of goods/services and quality within financial restrictions. The Contractor works with the Employer to identify develop and deliver Best Value service under the terms and conditions of this contract within available resources.

Types of requirements from the Contractor by the Employer include but not necessarily be restricted to the provisions of goods/services that are cost effective efficient timely reliable responsive consistent courteous and gives effect to the Employer's policies.

The Contractor assists the Employer in meeting his
CONTRACT DATA PART ONE – Data provided by the Employer

duty to deliver “Best Value” by complying with reasonable requests for information, data and other assistance to:

(1) enable the Employer to prepare a Best Value Performance Plan;

(2) enable the Employer to conduct a Best Value Review of operations;

(3) facilitate the auditing of the Employer’s Best Value Performance Plan;

(4) facilitate the Employer’s preparation of any statement required, in response to a report by the Employer’s auditor;

(5) facilitate the inspection by the Audit Commission, or other relevant authority, in connection with Best Value in respect of the execution of any works including any inspection undertaking with a view to verifying the Employer’s compliance with Best Value;

(6) assist the Employer in relation to any action taken by the Secretary of State;

(7) comply with all reasonable requests by the Employer for the attendance of particular officers, agents, employees or subcontractors of the Contractor at any meetings of the Employer at which the contract is discussed but not, otherwise than in exceptional circumstances, more than four times in any one year; and

(9) provide any Best Value Inspector, in connection with the exercise of his statutory powers and duties, at all reasonable and upon reasonable notice access to any information relating to any Package Orders, works, and any officers, agents, employees or subcontractors of the Contractor.

Z13.2 On or before each Best Value Review Date the Employer may instigate a Best Value Review in relation to such services or functions of which the works under this contract form part and therefore to which the provisions of this clause apply.

Z13.3 The Parties agree that any such Best Value Review
shall be carried out in accordance with applicable legislation.

Z13.4 The Employer carries out the Best Value Review at his own cost.

Z13.5 In carrying out the Best Value Review the Employer may take into account the results of any:

- Annual Service Reports
- Customer Satisfaction Survey
- Performance Standard Benchmarking Exercise
- Key Performance Indicators

and consults with the Contractor on any proposals to change the procurement of works to enable the Employer to comply with Best Value.

Z14. Key Performance Indicators

Incentives Z14.1 A Key Performance Indicator is an aspect of performance by the Contractor for which a target is stated in the Key Performance Indicator schedule. The Key Performance Indicator Schedule is the Key Performance Indicator schedule unless later changed in accordance with this contract.

Z14.2 From the starting date until the end date, the Contractor reports to the Employer his performance against each of the Key Performance Indicators. Reports are provided at the intervals stated in the incentive schedule and include the forecast final measurement against each indicator.

Z14.3 If the Contractor's forecast final measurement against a Key Performance Indicator will not achieve the target stated in the Key Performance Indicator Schedule, he submits to the Service Manager his proposals for improving performance.

Z14.4 The Employer may add, delete or change the measurement of any Key Performance Indicator at any time, after consulting the Contractor.

Z15. TUPE Regulations

Z15.1 The following definitions apply throughout this clause:
CONTRACT DATA PART ONE – Data provided by the *Employer*

- **Transfer Employees** - means those employees of the *Employer* and/or any Third Party who immediately before the Transfer Date are engaged in delivering a service substantially similar to the Works and whose names are listed in Schedule as “Third Party Employees”

- **Transfer Date** – The date on which the Transfer Employees are transferred to the employment of the *Contractor*. This is 1st April 2007 for all works except for carriageway resurfacing work, for which the Transfer Date is 1st January 2010.

- **Third Party** – means a person who is not a party to this contract

- **Transfer Regulations** – means the Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006 No. 246)

- **The Code** – means Code of Practice on Workforce Matters in Local Authority Service Contracts issued by the Government

- **Employment Liabilities** – means all losses, actions, costs, demands, liabilities, fines, damages and expenses (including, but not limited to salaries, wages, taxes, insurances, benefits and claims for wrongful dismissal, unfair dismissal and/or redundancy)

- **Appropriate Representative** – means an independent trade union or employee representatives whom an employer is required to inform or consult with under the Transfer Regulations or any other Law

**Z15.2** The Parties agree and declare that it is intended that, with effect from the Transfer Date, an equal share of the contracts of employment of the Transfer Employees will be transferred (together with the Trade Union Recognition Agreement) to each of the contractors appointed under similar framework contracts in accordance with the provisions of the Transfer Regulations to the intent
that with effect from the Transfer Date each of the Transfer Employees shall be treated as if he/she had at all times been employed by the Contractor upon the same terms and conditions as those which applied to his/her employment by the Employer and the Third Party immediately prior to the Transfer Date save insofar as they relate to the matters set out in clause Z15.5 (pensions) (and which shall be governed by the same) or to benefits for old age invalidity or survivors as the case may be.

Z15.3 In the event that the contracts of employment of the Transfer Employees do not transfer to the Contractor in accordance with the provisions of the Transfer Regulations the Contractor offers to employ the Transfer Employees with effect from the Contract Date as if their contracts of employment had transferred in accordance with the provisions of the Transfer Regulations.

Z15.4 In respect of apportionments relating to the Transfer Employees:

- The Employer is responsible for or shall procure that any other employer of a Transfer Employee is responsible for all remunerations benefits entitlements and outgoings in respect of the Transfer Employees including without limitation all wages holiday pay bonuses commissions payments of PAYE national insurance contributions pension contributions and otherwise prior to the starting date.

- The Contractor is responsible for all remuneration benefits entitlements and outgoings in respect of the Transfer Employees including without limitation all wages holiday pay bonuses commission payment of PAYE national insurance contributions pension contributions and otherwise from the Transfer Date.

Z15.5 The Contractor ensures that all Transfer Employees are offered membership of the Local Government Pension Scheme (LGPS) of which they were members or were eligible to be members prior to the Transfer Date or are afforded pension rights.
CONTRACT DATA PART ONE – Data provided by the *Employer*

which are certified by the Government Actuaries Department or by a professional qualified actuary as being broadly comparable to or better than the terms of the LGPS of which they were or were eligible to be members prior to the Transfer Date

**Z15.6** With effect from the Transfer Date the *Contractor* and not the *Employer* is the employer of such of the Transfer Employees as shall have transferred pursuant to the Transfer Regulations or shall have accepted an offer of employment pursuant to clause Z15.3 and for the avoidance of doubt the *Contractor* is responsible for all statutory contractual and other duties and liabilities under or in connection with the contracts of employment of such Transfer Employees and is not entitled to claim any reimbursement from the *Employer* in respect of costs of employment of any such Transfer Employee in respect of the period from the Transfer Date.

**Z15.7** Without prejudice to the generality of clause Z15.2 the *Contractor* prior to the Transfer Date provides the *Employer* with such information and in sufficient time so as to enable the *Employer* to comply with all of its obligations to inform and consult with Appropriate Representatives under the Transfer Regulations or by any other law.

**Z15.8** In respect of the obligations set out in this clause Z15.2:

- The *Contractor* indemnifies and holds the *Employer* harmless in respect of all Employment Liabilities arising out of any failure of the *Contractor* to comply fully with its respective obligations pursuant to clause Z15.7 save where and to the extent only that failure to do so is attributable to the default or failure to comply on the part of the *Employer*;

- The *Employer* indemnifies and holds the *Contractor* harmless in respect of all Employment Liabilities arising out of any failure of the *Employer* to comply fully with his obligations pursuant to Regulation 13 of the Transfer Regulations prior to the Contract Date save where and to the extent only that
failure to do so is attributable to the default or failure to comply on the part of the Contractor.

Z15.9 The Contractor shall in all respects comply with the following requirements:

(1) If requested to do so by the Employer during the term of this contract or 12 months following the expiry or earlier termination the Contractor provides to the Employer any and all relevant information to permit the Employer to prepare the necessary documentation in respect of any subsequent tendering or re-tendering of the Works or to supply all such information on termination of this contract whether through expiration of time or termination by the Employer. The information required is in accordance with the terms of this contract and in addition sufficient and accurate to enable the Employer to meet his legal obligations and to obtain the best value for money reasonably obtainable. For the avoidance of doubt this obligation extends to all workforce information necessary to enable the Employer to comply with his duties under the Transfer Regulations.

(2) Should the Contractor not apply to tender for or fail to be awarded the contract in any subsequent tendering or re-tendering of the Works or on termination of this contract whether through expiration of time or termination the Contractor transfers to the replacement contractor which was successful in being awarded the subsequent contract or to the Employer as directed by the Employer all data files records information and any other property belonging to the Employer to enable the provision of the Works to continue unaffected during the period of transition.

(3) The Contractor warrants and undertakes to the Employer that any information on the conditions of employment relating to the existing transferring employees of the Contractor which has been supplied to the Employer or the replacement contractor is true and accurate in all material respects and further agrees to provide before the commencement date of the subsequent contract warranties covering substantially the same matters.
CONTRACT DATA PART ONE – Data provided by the Employer

in relation to any transferring employees appointed between the date when the tenders are invited and the commencement date and to provide to the 
Employer or the replacement contractor upon written request any additional factual (but not personal) information relating to the transferring employees reasonably required by the 
Employer or the replacement contractor.

(4) The Contractor indemnifies the Employer against any liability in law which the Employer may incur by reason of a failure by the Contractor to supply the information specified in clause Z15.9 within reasonable time or by reason of any inaccuracies in such information. The Employer treats such information as confidential to himself and his Contractor save as required by law and save that he is at liberty to disclose the same (on the like terms as to confidentiality) to any person invited to tender for the provision of the Works in succession to the Contractor.

(5) The Contractor co-operates with and provides assistance to any replacement contractor which may be awarded the subsequent contract or to the 
Employer as directed by the Employer to enable the provision of the Works to continue unaffected during the period of transition.

Z15.10 The Contractor indemnifies and keeps the Employer indemnified against each and every cost claim liability expense or demand arising out of:

- any claim or allegation by a Transfer Employee that the Regulations apply and that as a consequence there has been or will be a substantial change in such Transfer Employee’s working conditions to his/her detriment

- any act or omission of the Contractor in relation to any Transfer Employee occurring on or after the Transfer Date and any claim for redundancy payments or protective awards and any liability for wrongful or unfair dismissal or otherwise in connection with the transfer of the employment of the Transfer Employees
CONTRACT DATA PART ONE – Data provided by the Employer

- any failure by the Contractor to comply with the terms of clause Z15.5 above

- any failure by the Contractor to provide full and accurate information which is required by the Employer to enable the Employer to discharge his statutory duties and obligations.

Z15.11 The Contractor performs the obligations contained in clause Z15.10 at no cost to the Employer and the provision of any information required by the Employer is not subject to any conditions or restrictions (including any confidentiality agreements).

Z15.12 The Contractor complies with the Code:

Z15.12 (1) The Contractor offers new staff fair and reasonable terms and conditions which are overall no less favourable to those of the Transfer Employees.

Z15.12 (2) The Contractor ensures that consultation takes place involving a genuine dialogue for agreement on the terms and conditions of new recruits with the Appropriate Representatives.

Z15.12 (3) The Contractor provides membership of the LGPS or membership of a good quality employer’s pension scheme. This will require employers to match employee contributions up to a maximum of 6% for an employer’s own defined contribution scheme or membership of a contracted-out final salary defined-benefit pension scheme or employer contributions to stakeholder pensions matching those of the employee up to a maximum of 6%.

Z15.12 (4) The Contractor provides the necessary information to the Employer to enable him to monitor compliance with the Code and certify that the Contractor complies with the Code and with all best value requirements.

Z15.12 (5) (i)The Employer and the Contractor in the first instance seek to resolve by discussions between
them any complaints from any employee or the Appropriate Representatives in relation to compliance by the Contractor of the Code.

(5) (ii) Where it appears to either of the Employer or the Contractor that it is not possible to resolve the matter by continuing discussions between them pursuant to or where an employee of the Contractor or the Appropriate Representatives writes to the Employer to confirm that it has been unable to resolve its complaint directly with the Contractor:

(5) (iii) The Employer writes, in the first instance, to the Contractor to seek an explanation for the alleged failure by the Contractor to comply with the Code. The Contractor provides an explanation in writing within five Business Days of receipt of the request from the Employer.

(5) (iv) If the response provided by the Contractor satisfies the Employer that the Code have been met then the Employer will inform the complainant of this and the matter is be deemed to have been concluded

(5) (v) In the event that the Employer is not satisfied with the response provided by the Contractor the Employer writes to the Contractor within five Business Days instructing the Contractor to take immediate action to resolve this dispute and

(5) (vi) If, following the issue of such an instruction by the Employer, the Contractor still appears to the Employer not to be complying with the Code the matter is treated as a dispute.

Z15.18 The Employer has, in the Disclosure Bundle and in the Schedule disclosed to the Contractor:

The full particulars of all terms and conditions of employment of each of the prospective Transfer Employees; and

particulars in respect of each of the prospective Transfer Employees listed in the Schedule including gender, age, job title, length of service, grade, salary and pay scale, annual leave entitlement and other benefits (including bonuses) together with
details of trade union membership (to the extent known) or recognition as at the Transfer Date for this contract.

Z16. Considerate Contractor Scheme

Z16.1 The Contractor

- becomes a member of the Employer’s Considerate Contractor Scheme
- complies with the Employer’s Considerate Contractor Scheme’s Code of Considerate Practice in Providing the Works in each Work Package.
- registers the site of each Work Package under the Employer’s Considerate Contractor Scheme, via the Employer’s website (www.barnet.gov.uk).

Z17. Data Protection Act

Z17.1 The Contractor complies with the provisions of the Data Protection Act 1998 (‘DPA 1998’) or any subsequent amendment thereto and ensures that his agents and employees are trained in and comply with the data protection principles set out in the above Act in their performance of the Contract. Any personal data as defined by the DPA 1998 or any subsequent amendment thereto given to or required to be collected and kept by the Contractor in the provision of this contract:

- is given to or collected and kept by the Contractor solely for the purposes of enabling the Contractor to Provide the Works and for no other purposes;
- is not altered or amended by the Contractor other than as required by this contract;
- remains the property of the Employer. It is not copied by the Contractor and is returned to the Employer upon expiration or earlier termination of this contract.

Z17.2 Where the Contractor processes personal data and sensitive data (as defined in the ‘DPA 1998’) the
CONTRACT DATA PART ONE – Data provided by the Employer

Contractor shall where required by the Employer provide proof of consent to that processing by the data subject and the form of consent shall specifically include consent for processing by the Employer to use the same to improve the service under this contract.

Z17.3 The Parties agree that where they act as data controller (as defined by the DPA 1998) as regards personal data they must have in place at all times and maintain appropriate technical and organisational security measures governing the processing of any personal data.

Z17.4 On termination of this contract for any reason the Contractor immediately ceases all processing of the personal data on behalf of the Employer and returns to the Employer, in a format specified by the Employer or destroy as the Employer may instruct at his discretion, all personal data processed by the Contractor on behalf of the Employer.

Z17.5 The Contractor fully indemnifies the Employer and his employees or agents against the cost of dealing with any claims made in respect of any information subject to the Act which claims would not have arisen but for some act omission or negligence on the part of the Contractor his employees or agents.

Z18. Equality in employment

Z18.1 The Contractor complies in all respects with the Equal Pay Act 1970, the Sex Discrimination Act 1975, the Race Relations Act 1976 and the Disability Discrimination Act 1995, the Employment Equality (Sexual Orientation) Regulations 2003 and the Employment Equality (Religion or Belief) Regulations 2003 together with all relevant amendments, regulations and codes of practice or any future or other legislation concerning discrimination in employment and takes reasonable steps to ensure that all its agents or subcontractors employed in the execution of this contract do the same.

Z18.2 The Contractor provides sufficient information to enable the Employer to monitor the Contractor s compliance with such codes of practice.
CONTRACT DATA PART ONE – Data provided by the Employer

Z18.3 The Contractor notifies the Employer if he receives an adverse finding or decision of discrimination from a tribunal of competent jurisdiction and informs the Employer of the steps taken to rectify the practices giving rise to such adverse finding or decision.

Z19. Costs of Tendering

Z19.1 The Employer is not liable for expenses incurred in the preparation of tenders; nor is the Employer bound to accept the lowest or any tenders submitted; and has reserved the right to invite fresh tenders should it considers that course desirable.

Z20. Technical Standards

Z20.1 The Contractor complies with all current, relevant British Standard Specification or Code of Practice or equivalent European Union or international standards offering guarantees of safety, reliability and fitness for purpose.

Z21. Named key persons

Z21.1 Acceptance by the Employer of key persons stated in Contract Data does not constitute acceptance that such individuals are suitable for the roles assigned to them or serve to relieve the Contractor of his duties or obligations under this contract.

Z21.2 The Contractor’s Senior Manager means the person named in Contract Part Two being the most senior member of the Contractor’s professional personnel with direct responsibility for this contract.

Z21.3 The Contract Manager means the person named in Contract Part Two being the most senior member of the Contractor’s professional personnel normally present on a site.

Z21.4 The Contractor’s Site Safety Officer named in Contract Data Part Two is responsible for dealing with questions regarding the safety and protection against accidents of all staff and labour and all other persons entitled to be present at the Works. This officer is qualified for this work and has the authority to issue instructions on behalf of the Contractor and
implements protective measures to minimise the risk of accidents.

Z22. Performance Failure

Z22.1 If the Contractor’s performance under this contract fails in any of the ways stated in the performance level schedule, the Contractor pays the amount stated in the performance level schedule.

Z23. Freedom of Information Act and Environmental Information Regulations

Z23.1 The Contractor acknowledges that the Employer is subject to the requirements of the Freedom of Information Act and the Environmental Information Regulations and assists and co-operates with the Employer to enable him to comply with these information disclosure requirements.

Z23.2 The Employer is responsible for determining at his absolute discretion whether any commercially sensitive and/or any other information:

- is exempt from disclosure in accordance with the Freedom of Information Act or the Environmental Information Regulations;

- is to be disclosed in response to a Request for Information, and in event shall the Contractor respond directly to a Request for Information unless expressly authorised to do so by the Employer.

Z23.3 The Contractor ensures that all information produced in the course of this contract or relating to this contract is retained for disclosure and permits the Employer to inspect such records when instructed to do so.

Z23.4 The Contractor acknowledges that any lists or schedules that he provides to outline confidential information are of indicative value only and that the Employer may, nevertheless, be obliged to disclose confidential information in accordance with this clause.

Z24. Intellectual Property Rights
### Z24.1

<table>
<thead>
<tr>
<th>All royalties, licence fees and other sums payable to any third party in respect of the use of any of the Intellectual Property Rights connected this contract shall be paid by the Contractor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Intellectual Property Rights shall pass or be deemed to have passed from the Employer to the Contractor.</td>
</tr>
<tr>
<td>The Employer, as beneficial owner, grants to the Contractor (or uses all reasonable endeavours to procure the beneficial owner shall grant) with full title guarantee, an irrevocable, royalty-free, non-exclusive licence to use and to reproduce all the Intellectual Property Rights of the Employer in or in respect of the contract and any drawings, technical descriptions and other documents supplied by the Employer in connection with this contract, solely to enable the Contractor to comply with its obligations under this contract. Such licence includes the right to provide Sub-Contractors of the Contractor with copies of the same when they are required to carry out work on behalf of the Contractor pursuant to this contract. Such licence continues until the expiry or earlier termination of this contract.</td>
</tr>
<tr>
<td>The Contractor grants to the Employer a perpetual, non-exclusive, royalty-free licence to use and to reproduce all Intellectual Property Rights, including any software source codes, in all information supplied or produced by or on behalf of the Contractor in connection with the Works for any purpose relating to:</td>
</tr>
<tr>
<td>- the construction, completion, cleaning, promotion, advertisement, reinstatement, rebuilding, renewal, alteration, extension, redevelopment, refurbishment, repair, or the provision of any works;</td>
</tr>
<tr>
<td>- any other activity relating to or in connection with:</td>
</tr>
<tr>
<td>- the carrying on of the Employer's business,</td>
</tr>
<tr>
<td>- this contract,</td>
</tr>
<tr>
<td>- the use and operation of the highway network</td>
</tr>
</tbody>
</table>
CONTRACT DATA PART ONE – Data provided by the Employer

For which the Employer is responsible, whether or not such works or activities are carried out by the Employer, another contractor or other third party.

The Employer is:

Name: The Mayor and Burgesses of the LONDON BOROUGH OF BARNET acting by the Council of the said borough, represented by Mike Freestone, Head of Environment and Transport, assisted by Chris Chrysostomou. Individual Package Orders may be supervised by other nominated Barnet Council Officers.

Address: Building 4
North London Business Park
Oakleigh Road South
London
N11 1NP

Tel: (020) 8359 7200
Fax: (0870) 8897458
E-mail: Chris.Chryxxxxxxxx@xxxxx.xxx.xx

The Framework Information is in: Section Two of this tender document

The scope is: The Scope section of this tender document

The selection procedure is in: Section Two of this tender document

The Package Order Issue Procedure is in: Section Two of this tender document

The end date is: 31st March 2012, unless otherwise changed in accordance with this contract

Z4. The amount of the performance bond is £100,000

Z14. The Key Performance Indicator Schedule is in the Service Information section of this document.

Z22. The performance level schedule is in the Service Information section of this document.

The Data which will apply to all Package Orders is

1 General

• The conditions of contract are the NEC3 Engineering and
CONTRACT DATA PART ONE – Data provided by the Employer

Construction Short Contract (June 2005) as extended and amended by the following:

1. Clause 21.1 is amended by the addition of the following text as a second sentence:

“This contract applies as if a Subcontractor’s employees and equipment are the Contractor’s.”

2. Clause 21.2 is deleted and replaced with the following text:

“The Contractor submits the name of each proposed Subcontractor to the Employer for acceptance. The Contractor does not appoint a proposed Subcontractor unless the Employer has accepted him.”

3. The following sentence is added to the end of Clause 41.2:

“Where a Defect creates a threat to the health, safety or welfare to those Providing the Work, or other people, it is classed as a Dangerous Defect. The defect correction period for each Dangerous Defect is as instructed by the Employer and is commensurate to the level of risk and severity of the hazard present.”

4. The following sentence is added to the end of Clause 42.1:

“Where the Contractor fails to correct a Dangerous Defect within the defect correction period, the Employer may instruct other people to correct the Defect. The Employer assesses the cost of having the Defect corrected by other people and the Contractor pays this amount.”

5. The final sentence of Clause 50.1 is deleted and replaced with the following text:

“There is an assessment day in each month from the starting date until three months after Completion.”

6. Clause 50.4 is deleted.

1 General

• The Employer is

The Mayor and Burgesses of the LONDON BOROUGH OF BARNET acting by the Council of the said borough, represented by the person identified in each Work Package

The Works are as specified in the Framework Information and
CONTRACT DATA PART ONE – Data provided by the Employer

the Works Information and the particular requirements detailed in each Work Package, and with regard to the Site Information contained in each Work Package.

4 Payment

The United Kingdom Housing Grants, Construction and Regeneration Act (1996) is deemed to apply to all Work Packages.

8 Indemnity, Insurance and liability

The Contractor is not liable to the Employer for loss of or damage to the Employer's property in excess of £10 million for any one event.

The Employer does not provide any insurance that is applicable to this contract

The minimum amount of cover for the third insurance stated in the Insurance Table is £10 million
The minimum amount of cover for the fourth insurance stated in the Insurance Table is £10 million

The Contractor’s attention is drawn to the various additional indemnity requirements included in respect of the Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006 No. 246) and the Data Protection and Freedom of Information Acts

9 Termination and dispute resolution

The Adjudicator is jointly chosen by the Parties during Mobilisation

The Adjudicator nominating body is The Institution of Civil Engineers

The tribunal is Arbitration

If the tribunal is arbitration, the arbitration procedure is The Institution of Civil Engineer's Arbitration Procedure (1997)

| The Contract Data Part One Data which will be provided with each Package Order is: |
|---|---|
| The works are |  |
| The site is |  |
| The starting date is |  |
| The completion date is |  |
**CONTRACT DATA PART ONE – Data provided by the *Employer***

<table>
<thead>
<tr>
<th>The <em>period for reply</em> is</th>
<th>(two weeks unless otherwise stipulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The <em>defects date</em> is</td>
<td>52 weeks after Completion (unless otherwise stipulated)</td>
</tr>
<tr>
<td>The <em>defect correction period</em> is</td>
<td>(two weeks unless otherwise stipulated)</td>
</tr>
<tr>
<td>The <em>delay damages</em> are</td>
<td>per day (minimum £20)</td>
</tr>
<tr>
<td>The <em>assessment day</em> is the</td>
<td>of each month</td>
</tr>
<tr>
<td>The <em>retention</em> is</td>
<td>% (NIL unless otherwise stipulated)</td>
</tr>
</tbody>
</table>
CONTRACT DATA PART ONE – Data provided by the Employer

| Other information which will be provided with the Contract Data Part One |
| Data for each Package Order includes: |
| A detailed estimate made of up of items, rates and adjustments from the tendered Price List and including the estimated total of the Package Order Price List. |
| Any risk assessment information that is exclusively relevant to the Package Order. |
| Any drawings, sketches and setting information that the Contractor will require to enable him to complete the Package Order. |
CONTRACT DATA PART TWO – Data provided by the Contractor

The Contract Data Part Two Data which will apply to all work under the Framework Contract is

The conditions of this contract are the clauses of the NEC3 Engineering and Construction Short Contract (June 2005) and the amendments included in Contract Data part one of the tender document.

The Contractor is

Name:

Address:

Tel:

Fax:

E-mail:

The key persons are

Contractor’s Senior Manager

Name……………………………………………………………………………………………………...

Job……………………………………………………………………………………………………...

Responsibilities ………………………………………………………………………………………

………………………………………………………………………………………………………

Qualifications ………………………………………………………………………………………

………………………………………………………………………………………………………

Experience…………………………………………………………………………………………

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CONTRACT DATA PART TWO – Data provided by the Contractor

Contractor’s Contract Manager

Name……………………………………………………………………………………………………

Job……………………………………………………………………………………………………

Responsibilities …………………………………………………………………………………

……………………………………………………………………………………………………

Qualifications …………………………………………………………………………………

……………………………………………………………………………………………………

Experience………………………………………………………………………………………

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……………………………………………………………………………………………………

Contractor’s Safety Officer

Name……………………………………………………………………………………………………

Job……………………………………………………………………………………………………

Responsibilities …………………………………………………………………………………

……………………………………………………………………………………………………

Qualifications …………………………………………………………………………………

……………………………………………………………………………………………………

Experience………………………………………………………………………………………

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……………………………………………………………………………………………………
CONTRACT DATA PART TWO – Data provided by the Contractor

The percentage for overheads and profit added to the Defined Cost for people is 
………….%

The percentage for overheads and profit added to other Defined Cost is 
………….%

The Contractor offers to Provide the Works as instructed in each Package Order issued to him in accordance with the conditions of contract for an amount to be determined in accordance with the conditions of contract. The offered Prices are as shown in the Tendered Price List attached.

<table>
<thead>
<tr>
<th>The Contract Data Part Two Data which will be provided with each Package Order is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Contractor’s Works Package Manager is:</td>
</tr>
<tr>
<td>The Works Package Manager’s contact details are:</td>
</tr>
<tr>
<td>The estimated total of the Package Order Price List is: £</td>
</tr>
<tr>
<td>Contractor’s Comments</td>
</tr>
</tbody>
</table>

Signed  
(Contractor’s Contract Manager)  
Date
Section Two
SCOPE

The scope of work required is the delivery of highway planned maintenance and improvement projects carried out within the London Borough of Barnet except those judged, at the exclusive discretion of the Employer, to be of unusual complexity. The Employer may instruct the Contractor to carry out parts of this work, through the issue of Package Orders, from any time after 1st April 2007 until the end date. It is not anticipated that any Package Orders for carriageway resurfacing works will be issued before 1st January 2010.

The work required will include, though not necessarily be limited to, the delivery of all planned highways maintenance and improvement works on local safety schemes, safer route to schools, Section 106 development work and crossovers.

The type of work required is expected to include the following:

- Carriageway and footway construction, including vehicle crossovers;
- Carriageway maintenance (including machine-laid resurfacing, patching and reconstruction);
- Carriageway widening schemes associated with Section 106 & 278 Highway Improvement Works and other Traffic Safety Improvements.
- Flexible footway maintenance (including machine-laid resurfacing and reconstruction);
- Rigid footway maintenance (including slab, flag, sett and paving re-lay and replacement, reconstruction and granolithic concrete work)
- Kerbing and edging works;
- Drainage works (including installation and repairs, pipe laying and building chambers and catchpits);
- Minor brickwork repairs;
- Road marking application and renewal work;
- Reflective road stud installation and renewal work;
- Traffic sign installation and renewal work;
- Assistance and attendance at traffic signal installation and renewal work;
- Street furniture and guardrail installation and renewal work; and
- all necessary temporary traffic management and safety measures.
It is the Employer’s intention to appoint two contractors, under similar framework contracts, to share the total workload as described in the selection procedure.
SELECTION PROCEDURE

Introduction

1. This Selection Procedure sets out the procedure that the Employer follows when selecting a contractor to deliver a Work Package. The Contractor is deemed to have taken this information into account in the rates and prices in the Tendered Price List.

2. In this Selection Procedure these capitalised terms have the following meanings:

   the “Share” is the quantity of work that the Employer instructs the Contractor to undertake under this contract, calculated as being the final total value of Package Orders (as stated on those Orders) issued to the Contractor, divided by the final total value of all Package Orders issued to all contractors engaged under similar framework contracts, expressed as a percentage to a single decimal place.

   the “Minimum Share” that the Employer may instruct the Contractor to undertake is thirty per cent.

   the “Maximum Share” that the Employer may instruct the Contractor to undertake is seventy per cent.

3. The Employer automatically awards at least the Minimum Share to the Contractor.

4. The Employer assesses the suitability of the framework contractors for each Work Package by continually monitoring their performance on the basis of issues such as quality of service, specialist experience, skills, Key Performance Indicator results, the Employer's Customer Satisfaction Surveys and also their tendered rates.

5. The Employer selects one of the framework contractors to undertake each Work Package at his exclusive discretion, always provided that the Contractor’s final Share is not below the Minimum Share and not above the Maximum Share.

Worked Example of Share Calculation:

Contractor A is awarded £11.1m of work and Contractor B is awarded £23.7m, therefore the total value of work awarded is £34.8m

Contractor A's Share is therefore 31.9% \([(11.1 \div 34.8)\times100]\) and Contractor B's Share is 68.1% \([(23.7 \div 34.8)\times100]\)
PACKAGE ORDER ISSUE PROCEDURE

Introduction

1. This Package Order Issue Procedure sets out the procedure that the *Employer* follows when issuing and the *Contractor* follows when receiving Package Orders. The *Contractor* is deemed to have taken this information into account in the Prices when submitting his tendered Price List.

Preparation of Proposed Work Packages

2. The *Employer* identifies items of work that need to be undertaken and compiles these into batches of work known as Work Packages. Where appropriate, the *Employer* discusses each Work Package with the *Contractor* and, if necessary, a joint site visit is carried out to consider the extent of work required, any site constraints, any special hazards or circumstances that will affect the *Contractor’s* CDM Health & Safety Plan, and to agree the contents of the Contract Data Part One that will apply to the Package Order. The *Employer* may also ask the *Contractor* to confirm his proposals for delivering the Work Package.

The Issue of Package Orders

3. After the details of the Work Package have been finalised, the *Employer* issues a Package Order covering the Work Package, which includes the necessary Contract Data Part One entries, detailed calculations showing how the *Employer* has calculated the prices in the Package Order Price List, including adjustments for such matters as inflation, different constraints on working, and for operating outside of Normally Permitted Working Hours. Each Package Order also includes any project-specific risk assessment information which needs to be included in the *Contractor’s* CDM Health & Safety Plan and other information that the *Contractor* will require to enable him to complete the Package Order.

Confirmation of Receipt of Package Orders

4. The *Contractor* confirms receipt of each Package Order and either advises the *Employer* of any problems that he has identified in it, or submits the following to the *Employer*:

- the Contract Data Part Two entries that are specific to the Package Order, including confirmation of the estimated total of the Package Order Price List,
- confirmation that any project-specific risks that have been identified have been added to the generic Construction Phase Health and Safety Plan and that the necessary information has been passed to those operatives who need it,
- any comments regarding the information supplied with the Package Order, and
- any other information requested by the *Employer.*
Issue of Purchase Orders

5. The Contractor shall note that the Employer is not able to make any payments to the Contractor for any work until he has issued a Purchase Order and that the Employer cannot raise a Purchase Order on his “SAP” financial management system until the Contractor’s assessment of the amount due has been agreed by the Employer. This is because the “SAP” system will not permit payment of the amount due unless it agrees exactly with the value of the Purchase Order. This does not affect the Contractor’s entitlement to payment for works instructed by the issue of a Package Order.
FRAMEWORK INFORMATION

Introduction

1 All Package Orders instructed under this contract shall be carried out in accordance with the Specification, as defined in Clause 1 of the Works Information.

2 The Employer cannot guarantee the number or value of Package Orders that will be issued, as most of the Work Packages are funded by bids to external bodies, but the Employer will keep the Contractor informed of his annual programme and discuss proposed projects with him.

3 The Employer has decided that it is inappropriate, due to the likely similarity of operations included in the majority of Work Packages, to prepare a separate CDM Health and Safety Plan for each Work Package. This is because such a system would increase the risk of vital safety information being lost in large quantities of repetitive paperwork. A single generic plan is therefore to be prepared to cover the Scope of works included in this contract, but the Employer will carry out separate risk assessments for each Work Package and issue details of any exceptional hazards or circumstances identified when issuing the Package Order.

4 The Contractor shall, upon receipt of each Package Order, consider the Employer's risk assessment contained therein and shall provide the Employer and the Planning Supervisor with copies of any changes he has made to his generic Health and Safety Plan, and shall confirm, with the Contract Data Part Two Information required, that the necessary information has been forwarded to the relevant members of his staff at operational level. The Employer may inspect the Contractor's Health and Safety Plan at any time.

5 The Contractor shall, at all times while providing the Works, give the following priorities due and full regard:

- protecting the safety of all who use, work on, or live within the Affected Property;
- maintaining the condition of the Affected Property;
- enhancing the condition and ambience of the Affected Property;
- minimising disruption to users of the Affected Property and of adjoining roads or facilities;
- treating members of the public with due courtesy and consideration;

5 The Normally Permitted Working Hours shall be as stated in Appendix 1/7 of the Specification unless otherwise permitted or instructed. Where percentage adjustments are included in the Price List for operating outside of these hours, such adjustments shall only be applied to rates for items that the Employer has instructed must be undertaken at such times.
Mobilisation

6 The Contractor shall commence Mobilisation from the Contract Date and shall ensure that he is fully ready and able to provide the service from the starting date. The activities undertaken during Mobilisation shall include:

- establishing and testing all internal and external administration and communication facilities and systems;
- preparing his depot, labour force and Equipment;
- developing a working relationship with the Overseeing Organisation;
- becoming familiar with the Borough’s road network and all interfaces and boundaries;
- liaising, as appropriate, with the outgoing service providers or any Others to ensure that the transitional arrangements operate smoothly;

General Management

7 The Contractor shall consult and liaise with all statutory bodies and other authorities, who may be affected by his delivery of each Package Order and shall notify the Overseeing Organisation of their requirements.

8 The Contractor shall immediately notify the Overseeing Organisation and the police of any fatal and other major incident and shall co-operate with the police and/or other investigators into the cause of such incidents.

9 The Contractor shall ensure that he is represented, at all meetings called by the Overseeing Organisation relating to the management of his contract, by members of his staff with the requisite level of authority, competence and involvement in the contract to be able to contribute effectively to the meeting. If his regular representative is unavailable to attend any meeting the Contractor shall ensure that a suitably-briefed and competent deputy, of similar seniority, attends. Complete non-attendance by the Contractor may be considered as a Defect. The frequency, dates and venues of all meetings shall be set by the Overseeing Organisation, in consultation with the Contractor. The Contractor’s attendance at meetings is expected to include, though not necessarily limited to those listed below:

- Performance Meetings (Monthly)
- Network Management Meetings (Quarterly)
- Individual Package Order Progress Meetings (as agreed)
- Partnering Meetings (as agreed)
The agendas for each type of meeting are expected to include, but not necessarily be limited to the following issues:

9.1 Performance Meetings

- The general state of the relationship between the Parties;
- The latest revision of the Contractor’s Programme;
- Health, Safety and Welfare issues;
- Risk Register issues;
- Current spending, against budgets;
- Confirmation of progress with current Package Orders;
- Other operational issues arising.

9.2 Network Management Meetings

- Traffic Management Act Network Management Duty;
- Strategic Road Network;
- NRSWA Notices;
- Co-ordination of all works programmes.

9.3 Individual Package Order Progress Meetings

- Progress of work to date.

10 The Contractor shall provide, maintain and operate appropriate facilities and systems for:

- the management of information and records relating to the service;
- receiving, transmitting and recording all communications from and to the Overseeing Organisation;
- the operation of management information systems, which are part of the information technology owned and/or used by the Employer.

11 The Contractor shall, where required, provide systems, standards and procedures that are compatible with the Employer’s highway maintenance management system and “SAP” financial system. At the time of tendering this contract the Employer has not yet selected a highway maintenance management
system and tenderers are invited to comment upon the compatibility of their own systems which those which the Employer might select as this might ultimately influence the system that the Employer selects. Full details of the chosen system will be given to the Contractor during Mobilisation.

12 The Contractor shall provide a secure location for any apparatus provided by the Employer to allow the Contractor to interact with the Employer's systems and shall ensure that only authorised users and maintenance personnel have access to it and that it is protected from theft, damage and unauthorised or malicious use. The Contractor shall facilitate the installation and maintenance of such equipment by the Employer or Others.

13 The Contractor shall ensure that he provides suitable staff and that they are properly trained to operate shared systems and, where appropriate, facilitates the implementation of any new systems required by the Employer.

Demobilisation

14 The Contractor shall commence Demobilisation, as soon as the Overseeing Organisation notifies him that the date of the end of the contract period has been confirmed by the Employer. The Contractor shall, during Demobilisation, undertake the following activities including:

- deliver to the Overseeing Organisation all his operational records, collected data, calculations and results of all analyses produced in connection with the surveys and other investigations and enquiries;

- transfer all digitally stored information that he has accumulated during the contract period, other than the Contractor's commercially confidential digital information;

- prepare and submit to the Overseeing Organisation, no later than three months before the end of the contract period, a report on all outstanding defects and work in progress on each Package Order.

Requirements for Liaison with the Employer and the Public

15 The Contractor shall assist the Overseeing Organisation, and other members of the Employer’s staff as authorised by the Overseeing Organisation, to deal with all queries and complaints he receives, regarding to the contract, by providing full and accurate responses to requests for information within the period for reply.

16 The Contractor shall provide postal, telephone, facsimile and e-mail electronic transfer facilities for receipt and transmission of customer service enquiries and responses as appropriate.

17 The Contractor shall provide any information that is needed to enable the Overseeing Organisation to prepare statements or responses to questions or issues raised by or on behalf of any public organisation or representative of the public, within the period of reply, unless it is impossible for the Contractor to do so, in which case the
Contractor shall immediately notify the Overseeing Organisation fully explaining why an answer cannot be given.

18 The Contractor shall respond directly to third party complaints relating to his operations under this contract but only after obtaining the prior consent of the Overseeing Organisation. The Contractor shall not communicate directly with any public organisation, with regard to any other issue without having obtained the prior consent of the Overseeing Organisation to do so, except to the extent that it is legally required to do otherwise.

19 The Contractor shall provide the Overseeing Organisation with the information necessary for the execution of the Employer’s duties under the Traffic Management Act specifically including, but not limited to, details of proposed lane closures and traffic safety and management measures.

20 Where instructed to do so by the Overseeing Organisation, the Contractor shall arrange for signs to be erected to inform users of planned road closures and or lane closures at least 28 days before implementation, giving the times and dates of the closure, to enable users to choose an alternative route.

21 The Contractor shall make recommendations to the Overseeing Organisation on publicity arrangements for any work on the Borough road network and when requested by the Overseeing Organisation, the Contractor shall prepare draft circular letters advising local residents of works that will affect them and shall submit such letters, with addresses, to the Overseeing Organisation for approval. The Contractor shall deliver circular letters when requested by the Overseeing Organisation and shall inform relevant authorities affected by any work.
WORKS INFORMATION – Specification

1 The Specification referred to throughout this Works Information shall be the 'Specification for Highway Works' which forms part of the ‘Manual of Contract Documents for Highway Works’ published by the Stationery Office), as extended by the specific information contained in the instructing Package Order or otherwise modified in accordance with the contract.

Preamble to the Specification

2 Throughout the Specification the term “Overseeing Organisation” means the London Borough of Barnet, as represented by the person named in the contract data or others to whom powers and duties have been delegated in accordance with this contract. The term “Site” means any location which the Contractor uses in Providing the Works.

3 The relevant publication date of each page of the Specification for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.

4 Clauses that have been specifically added to the Specification for the Contract are indicated by a suffix 'AR' in Appendix 0/1.

5 Substitute Clauses that have been used in the Specification for the Contract are indicated by a suffix 'SR' in Appendix 0/1.

6 Cancelled Clauses that have been deleted from the Specification for the Contract are indicated by a suffix 'CR' in Appendix 0/1.

7 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.

8 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.

9 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.

10 Where a Clause in the Specification relates to work goods or materials which are not required for the Works it shall be deemed not to apply.

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

12 Where the Specification requires the provision of documentation to the Employer for statutory or type approval such documentation shall be provided to the Overseeing Organisation.
## WORKS INFORMATION – Specification

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### APPENDIX 0/1: CONTRACT-SPECIFIC ADDITIONAL, SUBSTITUTE AND CANCELLED CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT.

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Additional Clauses, Tables and Figures

SERIES 100 - PRELIMINARIES

CLAUSE 170AR - PROTECTION OF PRIVATE PROPERTY

1 The Contractor shall take all necessary precautions to protect private property from damage, i.e. forecourts, walls, gates, driveways etc. and is liable, to the amount stated in the Contract Data, for the loss of or damage to property arising from or in connection with the Works. The Contractor shall inspect the site prior to the commencement of his work and record, with photographs, and report to the Overseeing Organisation any existing defects or damage to private property.

CLAUSE 171AR - SAFETY ON SITE

1 The Contractor shall not commence any work until the Planning Supervisor has certified that a generic Health and Safety Plan has been sufficiently developed by the Contractor in compliance with Regulation 15(4) of the CDM Regulations so that work may start.

2 The Contractor shall, as soon as practicable, take the necessary action to correct any notification reporting a Defect in his health, safety and welfare arrangements that have been issued to him by the Overseeing Organisation, including immediately suspending operations if necessary and to ensure that the site is made safe. A Defect in the health and safety arrangements that presents a danger to highway users shall constitute a Dangerous Defect and shall be rectified in accordance with the conditions of contract.

CLAUSE 172AR - EXPLOSION, FIRE OR ACCIDENT

1 Clear instructions for calling the Fire Brigade or Ambulance shall be prominently displayed on the site as directed by the Overseeing Organisation.

2 No petroleum spirit within the meaning of the Petroleum Consolidating Act 1928, shall be stored on the Site until the consent of the Overseeing Organisation and the necessary licences under the Act have been obtained.

3 Before commencing any work within 6m of any petroleum installation, whether above or below ground, in use or abandoned, the Contractor shall inform the Chief Officer, London Fire Brigade, Petroleum Branch, Room 810, Hampton House, 20 Albert Embankment, London, SE1 7SD, Tel. (020) 7587 6386 (Andy Berry), and shall give the appropriate notices in accordance with Clause 26 of the Conditions of Contract. The Contractor shall comply with such requirements as the Chief Officer or his representative may specify.

4 Where acetylene, oxygen, propane or other gas cylinders are used on the Site, the Contractor shall provide and maintain a painted notice board size 600mm by 400mm with red letters upon a white ground which shall read:
"DANGER - COMPRESSED GAS CYLINDERS"

Such notice shall be securely fixed in a prominent external position where gas cylinders are stored.

5 No plant or equipment which could cause fire or explosion shall be used within 20m of any unprotected openings in adjacent buildings in use for the storage of merchandise. Solid fuel shall be used only when permitted in writing.

6 The Contractor shall, when instructed by the Overseeing Organisation, supply in duplicate, drawings of all temporary buildings he proposes to use with particulars of the materials of construction, heating and lighting should the Overseeing Organisation so require.

CLAUSE 173AR - CARE AND MAINTENANCE OF ROADS

1 The Contractor shall afford facilities and make arrangements for the Overseeing Organisation to continue to carry out the normal maintenance of existing street lighting, snow clearance and gritting at such times and in such manner as the Overseeing Organisation may direct.

2 The Contractor shall take all the precautions necessary to prevent his vehicles and plant from soiling the roads and footways within the site or in the vicinity of the Works, including the installation of wheel washing equipment if so ordered by the Overseeing Organisation.

3 Any damage caused by the Contractor to any roads, footways or grass verges in the vicinity of the Works shall constitute a Defect and shall be rectified in accordance with the conditions of contract.

CLAUSE 174AR - NOTICE OF OPERATIONS

1 Notwithstanding the Overseeing Organisation's acceptance of the Contractor's programme no operation shall be carried out without the Overseeing Organisation's consent or without full and complete notification being accepted by him. The Contractor shall give to the Overseeing Organisation not less than 48 hours' notice for inspection of lines, levels, materials, traffic management measures, remedial works etc. for any parts of the Works, in order that arrangements may be made for checking if considered necessary. The Contractor shall also provide the Overseeing Organisation with mobile telephone contact numbers for each gang engaged in Providing the Works.

2 The Contractor shall, in the Contract Data Part Two information submitted for each Package Order, notify the Overseeing Organisation of the name and contact details for the person responsible for supervising the work included in that Package Order and of a deputy or deputies.
WORKS INFORMATION – Specification

CLAUSE 175AR - NUISANCE FROM DUST AND DIRT

1 The Contractor shall take all practicable steps to prevent nuisance from dust and dirt and shall be responsible for the cleansing of the carriageways, gullies and footways affected by his operations. Any excessive soiling caused by the Contractor on any roads, footways or grass verges in the vicinity of the Works shall constitute a Defect and shall be rectified in accordance with the Conditions of Contract.

2 Compliance with this Clause shall not relieve the Contractor of any of his other obligations and liabilities under the Contract.

CLAUSE 176AR - COPIES OF DRAWINGS

1 In all cases where drawings, calculations or schedules are required to be submitted by the Contractor for the Overseeing Organisation's acceptance, the Contractor shall supply copies of such drawings, calculations or schedules in duplicate, where requested, or in an electronic format that is acceptable to the Overseeing Organisation. The Contractor shall make any amendments or corrections which the Overseeing Organisation may require and shall submit amended or corrected copies. The Contractor shall make any amendments or corrected copies, until the drawings, calculations or schedules are finally accepted. The Overseeing Organisation's acceptance of such information shall not in any way absolve the Contractor from his responsibilities under this contract.

2 When the drawings of permanent work required to be submitted have been finally agreed the Contractor shall supply a further copy, or copies, as instructed.

CLAUSE 177AR - ADVERTISEMENTS AND GRAFFITI

1 All vehicles which are constantly used by the Contractor for Providing the Work shall display on both sides of such vehicles the “Barnet London Borough” Logo and the wording “Working on Behalf of the London Borough of Barnet”, in addition to displaying the Contractor’s name, address and telephone number.

2 No other advertisement shall be placed on any temporary or permanent works erected in connection with this contract, other than those accepted by the Overseeing Organisation prior to commencement of the contract.

3 Any unauthorised fly-posting or graffiti appearing on any buildings, hoardings, fencing etc. on the site of any works when possession of the site is taken by the Contractor or afterwards, during the currency of the contract, shall be removed as soon as practicable after they are discovered.

CLAUSE 178AR - PREVENTION OF SPOIL DUMPING

1 The Contractor shall take all reasonable steps to ensure that all excavated spoil, rubbish, surplus materials etc. arising from the Works is recycled or, if this is not practical, disposed of in accordance with the Environmental Protection Act 1991.
WORKS INFORMATION – Specification

2 The Contractor shall:

- only subcontract disposal to bona-fide carriers who have a Certificate of Registration under the Control of Pollution (Amendment) Act 1989;
- obtain from such carriers the locations of the proposed tipping area or areas;
- if and when required by the Overseeing Organisation, obtain and submit written evidence that all loads of excavated spoil, rubbish, surplus materials etc. have been deposited at recognised tipping area or areas.

3 The Contractor shall not deposit, nor allow to be deposited, any earth, spoil, rubbish, materials, equipment, plant or other objects or things on the carriageway or footways of any street or highway both within and outside the site which, in the opinion of the Overseeing Organisation, unnecessarily hinders, obstructs or annoys any person using or wishing to use such carriageways and/or footways.

4 All broken out, excavated and other material which is no longer required for use in the works, shall be cleared from the site as soon as it accumulates and disposed of. The disposal of any excavated spoil, rubbish, surplus or other waste material at any location other than at a licensed tipping area shall constitute a Defect and shall be rectified in accordance with the Conditions of Contract.

CLAUSE 179AR - STATUTORY UNDERTAKERS' INSPECTION COVERS

1 The Contractor shall ensure that all chambers, boxes, inspection chambers, fire hydrants, and the like embraced within the limits of the working site are at all times kept completely unobstructed allowing free access for the Undertaker concerned. Instructions to this effect should be given to all site staff.

CLAUSE 180AR - PROGRESS MEETINGS

1 The Contractor or his representative(s) will be required to attend regular progress meetings convened by the Overseeing Organisation or his representative(s) in accordance with the requirements stated in the Framework Information for this contract. The Overseeing Organisation will notify all parties concerned of the date, time, venue and agenda of the meeting at least 48 hours before the scheduled meetings.

2 The Overseeing Organisation or his representative will make a record of the meeting and distribute to all parties concerned. Upon the minutes being agreed by all concerned, it will be deemed to form a part of the Contract.

3 All mobile telephones will be required to be switched off during the course of the meeting.
WORKS INFORMATION – Specification

181AR - EMERGENCY PERSONNEL

1 The Overseeing Organisation will require the Contractor to give the name, address and telephone number of a member (or members) of his staff who can be contacted, at all times outside the Normally Permitted Working Hours, by the Overseeing Organisation or Police in the event of any emergency affecting the Works. This person or these persons shall be competent and have sufficient authority to take any necessary action on behalf of the Contractor.

CLAUSE 182AR - IDENTIFICATION OF CONTRACTOR’S PERSONNEL & VEHICLES

1 All Contractor's personnel of foreman level or above shall carry or wear at all times when working for the Borough identification cards which shall be sealed in a plastic case and shall include a photograph of the person, their position within the firm and the Contractor's name, address and telephone number.

2 All vehicles which are used by the Contractor constantly for works in this Borough shall display on both sides of each vehicle the "Barnet London Borough" Logo and the wording "Working on Behalf of the London Borough of Barnet" in addition to displaying the Contractor's name, address and telephone number.

CLAUSE 183AR - KEEPING SITE CLEAN

1 The Contractor shall at all times keep all roads, streets, entrances, verges, paths, footways, drains and sewers in the area of the Works in a safe, clean and passable state. All waste of superfluous materials on the site shall be cleared away by the Contractor as the Works proceed or as required by the Overseeing Organisation. In addition surplus materials whether supplied by the Contractor or the Employer shall be removed by the Contractor as the works proceed or as required by the Overseeing Organisation or his representatives, in any case the site must be cleared within 24 hours of the completion of works as deemed by the Overseeing Organisation.

CLAUSE 184AR – MAINTENANCE OF ACCESS TO FRONTAGES

1 The Contractor shall ensure that access to all frontages, whether residential or commercial, is maintained at all times during the Works, unless otherwise agreed by the Overseeing Organisation.

CLAUSE 185AR - SITING OF STORES, WORKSHOPS ETC. ON THE HIGHWAY NETWORK.

1 The Contractor shall obtain the written acceptance of the Overseeing Organisation for the short term siting of stores, workshops and the like for the storage of tools, plant and materials on the highway network. A reason for non-acceptance is that the proposed location is causing unnecessary inconvenience or danger to highway
WORKS INFORMATION – Specification

users.

CLAUSE 186AR - NOTIFICATION AND LIAISON

1 The Contractor shall, when instructed, collect a residents’ information letter from the Employer’s offices and deliver copies to all residents that are likely to be affected not less than three weeks before the start of the work. In addition the Contractor shall prepare his own works notification letter and shall, after its content has been accepted by the Overseeing Organisation, deliver it to affected residents within three working days of the start of any work on site. When instructed similar letters shall be placed on car windscreen. A copy of each letter shall be returned to the Overseeing Organisation, indicating on it the date of delivery and name of person(s) who delivered the letters. In cases where the Contractor commences work without delivering such letters the Overseeing Organisation may, without invoking a compensation event, instruct the Contractor to stop and subsequently re-start any works in hand.

2 The Contractor shall also notify affected residents/businesses, in writing, of the exact date upon which the works will begin, at least five working days before commencement of the work. A copy of the notification must be sent to the Overseeing Organisation for distribution to the Police, statutory undertakers, etc.

3 The Contractor shall attempt to locate the driver of any vehicles restricting the works to enable the vehicle to be removed. If all attempts in tracing the driver fail the contractor shall record the make, model and registration mark of the vehicle and notify the Overseeing Organisation who will, if possible, make arrangements for the vehicle to be removed by a third party contractor. On removal of the vehicle the contractor shall fix to nearby street furniture (tie pulls) a notice supplied by the Overseeing Organisation of whom to contact re the whereabouts of the said vehicle.

CLAUSE 187AR - WORKS ON RED ROUTES

Parts of the A1, A41 and A406 Trunk Roads, including extensions into adjacent side roads are covered by “Red Route” traffic orders. The Contractor undertake all measures necessary associated with applying for and obtaining the necessary dispensations from the Police and Transport for London for any works which are carried out on roads covered by “Red Route” traffic orders.

SERIES 500 - DRAINAGE AND SERVICE DUCTS

CLAUSE 570AR - ADJUSTMENT OF CHAMBER AND GULLY COVERS AND FRAMES ETC

1 All chambers, gullies, boxes etc shall be adjusted to new road levels prior to the resurfacing works, unless expressly instructed or accepted by the Overseeing Organisation otherwise. Where permission has been given for the ironworks to be adjusted after the resurfacing works, the Contractor shall commence the operations within 48 hours of the completion of resurfacing operations. Chamber and box
WORKS INFORMATION – Specification

covers shall be reset flush with, and gullies 6mm below, the level of the new surface. All old mortar shall be removed and frames shall be bedded on 2:1 cement mortar on top of additional engineering brickwork as necessary. Rapid hardening cement or epoxy/polymer cement shall be used for cement mortar and the space between the gully frame and kerb shall be sealed. The frames shall be haunched all round, in concrete grade C30P to within the thickness of the new surface course to be laid. The exposed joint shall be painted, before laying the new surfacing, with grade 50 or 70 pen hot bitumen on all surfaces against which the new surface is to abut. Care shall be taken to ensure that the bitumen lies at the foot of joint and on the vertical face, not on the adjacent surface.

2 In some locations the Overseeing Organisation may instruct that particular boxes, chamber covers, gullies etc be raised as detailed above but set in quick setting epoxy mortar. Such mortar shall be “Monoset” mortar, manufactured by Ronacrete Ltd, or alternative.

3 All loose materials shall be removed and the areas around frames shall be reinstated to within thickness of the surface course to the top of the frames with concrete (5:1) or epoxy concrete. The Contractor is to include also in his rates for making good any defective brickwork courses found and shall clean off old mortar from bricks before relaying.

4 If after the adjustment of level has been completed, it is not possible for the new surface to be laid immediately, the Contractor shall provide and maintain a temporary ramp of bituminous macadam or cold asphalt around the projecting edges so that traffic can safely run over it. Each temporary ramp shall comply with the dimensions stated in Clause 971AR and shall be removed immediately prior to the application of the final surface.

5 The asphalt around boxes, manholes, gullies and any points inaccessible for rolling shall be compacted by thorough and careful tamping.

6 Traffic shall be prevented from running over adjusted road gullies for a period of 24 hours. Traffic should also be prevented from running over chamber covers and frames, etc, for a period of 24 hours whenever possible or, in the case of chamber covers and frames being set in epoxy mortar, for the setting time recommended by the manufacturer. In cases where this is not possible the period may be reduced to a minimum of five hours and the Contractor shall allow for this when programming his work and shall provide all additional signing and coning that is necessary to protect the mortar during its curing period.

7 The Contractor shall, unless agreed otherwise with the Overseeing Organisation, permanently reinstate all areas of the surface course around adjusted ironwork within seven days of the completion of the adjustments.

8 The Contractor is to replace any worn or ill-fitting chamber covers, unless expressly instructed by the Overseeing Organisation to retain them. New manhole covers and frames may either be collected from the relevant statutory undertaker's
WORKS INFORMATION – Specification

depot or be supplied by the Contractor, as instructed by the Overseeing Organisation. Bituminous surfacing shall be cut to the full depth of the surfacing at the initial stage. All edges shall be essentially straight, smooth, vertical and parallel to the line of edge outline of cover or grating, unless agreed otherwise prior to the commencement of the scheme.

9 If a statutory authority decides to adjust its own cover and frame, the Contractor will be notified by the Overseeing Organisation of this requirement and he must make all necessary arrangements within his working site to enable the utility company to carry out the necessary works. Where the Contractor is unable to adjust cover and frame of any statutory undertakers' apparatus, he must notify the Overseeing Organisation on receipt of the instruction or at least 48 hours before substantial completion of the works. In such cases, the Contractor will be required to make safe the area and make himself or his agent available to identify the location, if the statutory undertaker requires his attendance.

The Contractor shall carry out temporary reinstatements where necessary and shall, after completion of works undertaken by statutory undertaker(s), undertake the permanent reinstatement of all disturbed areas.

SERIES 900 - ROAD PAVEMENTS - BITUMINOUS BOUND MATERIALS

CLAUSE 970AR - JOINTS

1 At the ends of the carpet and across side roads, transverse joints shall be made either by letting into the existing surface or by feathering out as directed by the Overseeing Organisation. Bituminous surfacing shall be cut to the full depth of the surfacing at the initial stage. All edges shall be essentially straight, smooth, vertical and parallel to the line of edge outline of cover or grating, unless agreed otherwise prior to the commencement of the scheme.

2 The edge faces of surface course joints shall be painted with grade 50 or 70 pen hot bitumen, care being taken to ensure that the bitumen lies at the foot of the joint and on the vertical face, not on the adjacent surface.

3 Hot tampers shall be used around ironwork and where the roller cannot reach. Joints formed by feathering out shall be tapered in the carpet material to a cold asphalt to BS 4987 made with binder of suitable viscosity. Unless otherwise directed by the Overseeing Organisation, tack coat shall be sparingly applied before laying the cold asphalt.

4 The change of gradient in the finished transition length shall not exceed 1 in 50 unless by so doing a smoother transition can be achieved.

CLAUSE 971AR - TEMPORARY RAMPS

1 The Contractor shall provide and maintain temporary ramps in asphalt or a suitable material to afford safe passage of vehicles between surfaces of differing
WORKS INFORMATION – Specification

levels, and shall remove the said ramps when they are no longer required, including raised boxes, chambers, gully gratings, etc.

2 The minimum dimensions for the ramps shall be as follows:

(a) For roads with a speed limit of up to 30 mph:
   - Difference in level 40mm minimum ramp length 0.4m
   - Difference in level 50mm minimum ramp length 0.5m
   - Difference in level 60mm minimum ramp length 0.6m

(b) For roads with a speed limit of 40 mph or above:
   - Difference in level 40mm minimum ramp length 1.0m
   - Difference in level 50mm minimum ramp length 1.2m
   - Difference in level 60mm minimum ramp length 1.5m

3 Signs indicating the presence of temporary ramps must be installed at each ramp and maintained during the period of the presence of the ramps.

CLAUSE 972AR - MAINTENANCE OF HIGHWAY DRAINAGE

1 The Contractor shall take all measures necessary to ensure that all surface courses are laid to levels which permit the free flow of surface water from the highway and into road gullies. It shall be deemed that the Contractor has allowed in his rates for surfacing for any surveying necessary to set up levels to ensure free drainage. The presence of any standing water on any newly laid surface shall constitute a Defect and shall be rectified in accordance with the Conditions of Contract.

CLAUSE 973AR - OPEN GRADED BINDER COURSE

1 Open graded binder course shall be produced in plants that are registered to the BS EN ISO 9001 ‘Sector Scheme for the Production of Asphalt Mixes’, described in Appendix A. It shall comply with BS 4987-1 for binder course mixtures, and with sub-Clause 2 of this Clause, and the requirements of Appendix 7/1.

Binder

2 Bitumen shall comply with BS EN 12591 and shall be produced in plants that are registered to BS EN ISO 9001 ‘Sector Scheme for the Supply of Paving Grade Binders’, described in Appendix A. The penetration reference of bitumen shall comply with BS 4987-1 and shall be as specified in Appendix 7/1.

SERIES 1000 – ROAD PAVEMENTS – CONCRETE MATERIALS

CLAUSE 1070AR - RE-SEALING JOINT GROOVES

1 If necessary to obtain the minimum dimensions and width to depth ratios required by Table 10/4, or to eliminate minor spalling or to completely remove the old sealant,
WORKS INFORMATION – Specification

widen and deepen the sealing groove by sawing up to a maximum width of 30mm. The minimum depth of sealing groove shall be obtained by the minimum depth of the seal itself and the thickness of the caulking strip.

2 Clean out the sealing groove, immediately after sawing when this is undertaken.

3 Scour the sides of the groove by abrasive blasting. Alternatively when compression seals are to be used, the sides of the groove may be prepared by grinding or wire brushing.

4 Thoroughly clean out the sealing groove using oil-free compressed air at a minimum pressure of 0.5N/mm².

5 When either hot or cold applied sealants are used, insert a caulking strip of compressible material at least 5mm thick into the bottom of the groove.

6 The groove shall be dry immediately prior to it being primed.

7 Prime and seal with materials complying with Clauses 1016 and 1017.

SERIES 1100 – KERBS, FOOTWAYS AND PAVED AREAS

1170AR RELAYING OF PRECAST CONCRETE FLAGS AND CLAY PAVERS IN FOOTWAYS AND PAVED AREAS.

Site Inspection

1 Before commencing any relaying of precast concrete flags or clay pavers, the Contractor shall carry out a joint site visit, with the Overseeing Organisation, to ensure that the following are clearly understood:

(i) The extent of the relay work required and how any difficulties, such as the achievement of acceptable falls and levels, are to be resolved during the relay operation;

(ii) The number of broken flags within the relay area;

(iii) The length of kerbing to be re-laid or replaced shall be marked up and the required height of kerb face instructed, generally in accordance with the information given in subclause 2 below;

(iv) The existing condition of adjacent private property, such as walls, driveways, paths, etc, which the Contractor shall record photographically;

(v) Any requirements for modifying the existing layout, such as the construction of vehicle crossovers;
WORKS INFORMATION – Specification

(vi) The Contractor’s sequence of working and the extent of footway to be completed per day;

(vii) The Contractor’s site-specific proposals for eliminating or, at least, reducing the risk of back injury to workers who are involved in the manual handling of kerbs and slabs;

(viii) Temporary access arrangements to frontages;

(ix) Proposed locations of stores and welfare facilities.

Kerb Heights

2 The majority of kerb relay work required will be in short lengths, where the kerb height shall be set out using a string line to tie in to existing adjacent kerbs. For longer runs, however, the preferred height of kerb face shall generally be between 100mm and 125mm but shall always be as instructed by the Overseeing Organisation. All lines and levels shall be accepted by the Overseeing Organisation before kerb laying commences. At pedestrian dropped crossings and vehicle crossovers the kerb height shall not exceed 5mm and 25mm respectfully.

Taking up Existing Flags and Clay Pavers

3 The Contractor shall, when taking up existing flags, sort them into those of different sizes and colour, particularly segregating metric and imperial sizes, so that they are ready for re-use in different areas. Clay, block and brick paving shall, where appropriate, be sorted into different colours types and sizes.

Footways

4 The length of footway taken up for re-lay at any one time shall not exceed 100m, unless otherwise instructed or permitted by the Overseeing Organisation. Furthermore, the Contractor shall plan his operations to ensure that at least 80% of any area of paving that is lifted in a working day is re-laid by the end of the same way and so that the footway is left in a safe condition.

5 The levels at the rear of re-laid footways shall tie into the levels of existing adjacent driveways and paths, and to the existing back of footway levels on boundary walls, unless otherwise instructed. Where this cannot be achieved without accommodation works, the extent of such works shall be as instructed by the Overseeing Organisation.

6 Footway crossfalls shall preferably be 1:40, but the crossfall may be between 1:30 and 1:60 where this is necessary to tie into existing adjacent levels. Footways shall not be laid to crossfalls outside of these limits, or to a back-fall, except where specifically instructed by the Overseeing Organisation. Footway crossfalls shall generally be laid straight from the back of the footway to the top of kerb, except at
WORKS INFORMATION – Specification

vehicle crossovers or where there is a grass verge adjacent to the kerb. The crossfall in these situations shall be as instructed by the Overseeing Organisation.

7 The Contractor shall co-ordinate different footway working operations, such as the installation of slabs, blocks, bituminous surfacing and concrete, which are to be undertaken in close proximity so that the progress of the work is not impeded. Any adjustments to subbase and bedding thicknesses made necessary to simplify the process of laying paving components of different thicknesses shall be as proposed by the Contractor and accepted by the Overseeing Organisation. The Contractor shall allow for different materials to be instructed in adjacent footway bays. A typical example of this situation is shown on the diagram below.

8 All existing bedding shall be taken up and disposed of and after the removal of the existing bedding material the exposed sub-base shall be inspected by the Overseeing Organisation. The Contractor shall then excavate any soft spots, fill, re-profile and re-compact the top of the sub-base as instructed by the Overseeing Organisation. All flags shall be laid to comply with the requirements of subclause 1104.2SR.

9 All new precast concrete flags and stone slabs shall comply with the requirements of subclause 1104SR.1. All flags and slabs, whether new or re-used, shall be laid in accordance with the requirements of subclauses 1104SR.2 to 1104SR.4 inclusive. Where an area of footway, comprising imperial size flags and slabs, cannot be re-laid entirely with imperial size because of the extent of damage to the existing and unavailability of new slabs of the same size the available imperial size slabs, and the new metric sized units, shall be laid in separate bays.

10 All new clay pavers shall comply with the requirements of clause 1107.1 and shall be laid in accordance with BS 7533-3, except where any requirements therein differ from those in this contract, where the latter shall take precedence.

Margins

11 All margins between the footways and kerbs or edgings shall be constructed of concrete, bituminous material, block paving, or filled with earth, as stated in the instructing Package Order. Steep gradients, and cambers across margins, shall not be permitted unless specifically instructed by the Overseeing Organisation.
WORKS INFORMATION – Specification

1171AR Reconstituted Stone Products

1 Reconstituted stone products shall be “Marshalls Reconstituted” kerb or equivalent. Further details of “Marshalls” products are available from:

Marshall’s Mono Ltd
Landscape House
Premier Way
Lowfields Business Park
Elland HX5 9HT
Tel. 0845 302 0600
www.marshalls.co.uk

2 Reconstituted stone kerb, channel and quadrant units shall be reused wherever this is viable, and supplemented by recycled components, from a source approved by the Overseeing Organisation, if viable and necessary. They shall be unbroken and undamaged and shall be cleaned on all faces, back to parent stone, before being re-laid.

3 Reconstituted stone kerb, channel and quadrant units shall be worked in accordance with the requirements of BS435:1975. The dimensions and finish shall be 125mm x 225mm x 914mm unless otherwise stated in the instructing Package Order.

4 All reconstituted stone kerb, channel and quadrant units shall be laid and bedded in accordance with the requirements of Clause 1101.

1172AR VEHICLE CROSSOVER CONSTRUCTION

1 Vehicle crossovers shall be constructed in the locations and to the size stated in the instructing Package Order. The constructed area of each crossover shall be measured separately, in accordance with the amended method of measurement, but all kerbs and edgings required shall be measured using the standard items.

2 The area of the crossover to be constructed shall be excavated to the appropriate depth for the crossover type, and the formation prepared, in accordance with the requirements of Series 600. Where the sides of a new crossover are within an existing footway of flexible construction, the bituminous material shall be saw cut to a depth of 75mm, before excavation begins, to form a neat joint. The sawn edges of existing material shall be painted with joint sealing material before the application of the new surfacing material.

3 Because the majority of vehicle crossover installations will inevitably interfere with the access to the resident’s property, the Contractor must ensure that he gives not less than five working days notice to the affected resident of the date on which he will construct the crossover and must liaise closely with the resident with regard to his access requirements. It is also essential that vehicle crossover installations are
WORKS INFORMATION – Specification

completed within a single working day or, where this is impossible for some reason, that the access to the property is temporarily reinstated at the end of each working day. This may, subject to the acceptance of the Overseeing Organisation, include the provision of temporary steel sheeting, and/or temporarily protecting recently laid kerbs with surplus unbound material. The Contractor shall also ensure that reasonable access to the property is maintained at all times.

4 Each vehicle crossover shall be one or more of the following types, as stated in the instructing Package Order:

Bituminous macadam crossover (Type 1)

Precast Concrete Flag crossover (Type 2)

Modular slab crossover (Type 3)

Concrete crossing (Type 4)

5 Type 1: Bituminous macadam crossover

The construction details for this type of crossover shall be:

**Surface course:** 25mm layer of 0/6mm Dense Surface Course material conforming to BS4987-1 Clause 7.5, with 160/220 pen binder.

**Binder course:** 60mm layer of 0/20mm Dense Binder Course material conforming to BS4987-1 Clause 6.5, with 40/60 pen binder.

**Base:** 75mm layer of Wet Lean Concrete 4 conforming to Clause 1030.

6 Type 2: Precast concrete flag crossover

The construction details for this type of crossover shall be:

63mm thick precast concrete flags, laid and bedded in accordance with Clause 1104SR, on a 75mm thick base of Wet Lean Concrete 4 conforming to Clause 1030 and a 75mm layer of Type 1 Granular Sub-base material conforming to Clause 803.

7 Type 3: Modular slab crossover

The construction details for this type of crossover shall be:

65mm thick modular concrete slabs and blocks, laid and bedded in accordance with Clauses 1104SR and 1107, on a 150mm layer of Type 1 Granular Sub-base material conforming to Clause 803.

8 Type 4: Concrete crossover
WORKS INFORMATION – Specification

The construction details for this type of crossover shall be:

100m thick Class 16/20 Concrete, with Class U1 finish conforming to Clause 1708.4 (ii), laid on a 100mm layer of Type 1 Granular Sub-base material conforming to Clause 803.

9 Type 5: New Estate Crossover

The construction details for this type of crossover shall be:

Surface course: 40mm layer 6mm Dense surface course, material conforming to BS 4987-1 clause 7.5 with 160/220 pen binder.
Binder course: 60mm layer 20mm Dense binder course material conforming to BS 4987-1 clause 6.5 with 40/60 pen binder.
Base: 160mm layer 28mm Base to BS 4987 (laid in two x 80mm layers)
Sub base: 225mm layer of Type 1 sub-base to Clause 803 of the Specification.
Capping Layer: 600mm Capping layer of Type 2 Granular Capping to Clause 613 of the Specification.
Capping material thickness may be reduced to 350mm when CBR values are greater than 2.5%.

SERIES 2600 - MISCELLANEOUS

SUBSTITUTE CLAUSES, TABLES AND FIGURES

SERIES 100: PRELIMINARIES

CLAUSE 103SR – COMMUNICATION SYSTEM

1 The Contractor shall continually provide a number of mobile telephones for the Overseeing Organisation as and when instructed by the Overseeing Organisation. At least three such telephones shall be available for use, if required, from the contract starting date, until the end date, and shall comply with the requirements stated in Appendix 1/3.

2 The Contractor shall ensure that the mobile telephone service provider that he selects provides adequate signal strength to permit call reception at any location within the London Borough of Barnet.

3 The Contractor may provide a separate communication system for his own use.

4 The Contractor shall ensure that any fault is rectified within 12 hours of notice being given by the Overseeing Organisation and a temporary replacement shall be provided if any mobile telephone is out of service for more than 24 hours.
WORKS INFORMATION – Specification

CLAUSE 110SR - INFORMATION BOARD

1 The Contractor shall, when instructed, provide and erect a minimum of two number Information Boards, which may be either free standing, or fixed to a lighting column, or as directed at least two days before commencement of works on site in the location stated or as directed. Thereafter, he shall clean and maintain them and dismantle and remove them within 48 hours on completion of the works. An example of a typical Information Board is shown on Drawing Number ST/1/10A.

2 There shall be reserved for the Employer’s part of the display area (the proportion to be determined by and at the absolute discretion of the Overseeing Organisation) upon any sign or notice board which the Contractor is permitted or required to erect on site for the purpose of identifying the Contractor or others involved with the project or for the purpose of giving information concerning the project of any other purpose. The Employer shall be entitled to use the said reserved display area for such advertising matter, insignia or wording as the Overseeing Organisation instructs.

3 The Contractor shall also erect publicity boards on lighting columns through the area affected by the Works as instructed by the Overseeing Organisation. These publicity boards, which will be provided by the Overseeing Organisation, are approximately 600 x 450 mm in size, are constructed from rigid plastic and may be fixed using plastic cable ties.

CLAUSE 113SR – PROGRAMME TO BE FURNISHED

1 The Contractor shall submit to the Overseeing Organisation a monthly programme of work as outlined in Appendix 1/13. This shall be in the form of a time-related bar chart, or such other format as agreed with the Overseeing Organisation, which shall show all activities known at its time of formulation, their location and their anticipated duration, the Package Order, proposed traffic management measures, name and mobile telephone number of the supervisor/foreman and any other relevant information such as working hours where work is to be restricted to off peak hours.

2 In addition to the quarterly programme required, the Contractor shall provide the Overseeing Organisation with his intended daily whereabouts, for the whole of the following week, by no later than 12:00 on each Thursday.

3 The Contractor shall inform the Overseeing Organisation of any proposed changes to his intended daily whereabouts (as notified in sub-clause 2 above) by no later than 12.00 hours on the day preceding the day upon which the proposed changes are to occur.

4 The Contractor will assist the Overseeing Organisation in preparing, monitoring and updating an annual and monthly programme of works.
WORKS INFORMATION – Specification

SERIES 1100 - KERBS, FOOTWAYS AND PAVED AREAS

1104SR Footways and Paved Areas (Precast Concrete Flags and Natural Stone Flags)

1 Precast concrete flags shall conform to BS EN 1339. Natural stone slabs shall conform to BS EN 1341. Type designations, thicknesses and performances and classes shall be as described in Appendix 11/1.

2 Precast concrete flags and natural stone slabs shall be laid in accordance with BS 7533-4, except where any requirements therein differ from those in this contract where the latter shall take precedence, to a crossfall of between 1:30 and 1:60, unless otherwise instructed, with a 150mm and with joints at right angles to the kerb or edging. The difference in level between two adjacent flags shall not exceed ± 2mm. Flags and natural stone slabs shall be bedded either on:

   (i) a layer of lime mortar, conforming to Clause 2405, 25mm thick, joints to be filled with sand conforming to BS EN 12620 designation 0/2, or

   (ii) a layer of mortar designation (ii), conforming to Clause 2404, 25mm thick, joints to be filled with sand conforming to BS EN 12620 designation 0/2.

and the joints between them pointed with either:

   (iii) lime mortar, conforming to Clause 2405, or

   (iv) mortar designation (ii), conforming to Clause 2404,

as instructed by the Overseeing Organisation. Square edged flags shall be laid with a joint width not exceeding 5mm which shall be filled and compacted to the top of the flag surface with joint filling mortar. All joints exceeding 10mm will be required to be hand pointed unless instructed otherwise. The area between the slabs or flags and boundary walls, fences, around statutory undertakers box covers and frames etc shall be filled with mortar designation (ii) conforming to Clause 2404. The fillet shall be at least 50mm thick and payment for this work will be made the same rate as that for paving.

3 The Contractor shall ensure any surplus grout on the paved area is swept clean as soon as practically possible or as directed by the Overseeing Organisation after completion of this operation.

4 On circular work where the radius is 12m or less all flags and natural stone slabs shall be radially cut on both edges to the required line.

5 The laying course shall be laid on sub-base composed of material complying with Clause 803, laid and compacted to Clause 802 and to the thickness described in Appendix 11/1.
WORKS INFORMATION – Specification

APPENDIX 0/2: CONTRACT - SPECIFIC MINOR ALTERATIONS TO EXISTING CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT

<table>
<thead>
<tr>
<th>Clause No. (etc)</th>
<th>Alteration to be made</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series 000 Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>Delete the second paragraph of sub-clause 1 and replace with:</td>
</tr>
<tr>
<td></td>
<td>“The term Overseeing Organisation means the London Borough of Barnet, as represented by the person named in the contract data or others to who powers and duties have been delegated in accordance with this contract.”</td>
</tr>
<tr>
<td>002</td>
<td>Insert, as sub-clause 3:</td>
</tr>
<tr>
<td></td>
<td>“Unless specifically defined otherwise the use of the term ‘Works’ in the Specification and associated documents refers to any activity, operation, works, or part thereof, undertaken as part of a Package Order issued under this contract.”</td>
</tr>
<tr>
<td>002</td>
<td>Insert, as sub-clause 4:</td>
</tr>
<tr>
<td></td>
<td>“Unless specifically defined otherwise the use of the term ‘Site’ in the Specification and associated documents refers to any location within the London Borough of Barnet where the Employer requires work contained in a Package Order issued under this contract.”</td>
</tr>
<tr>
<td>002</td>
<td>Insert, as sub-clause 5:</td>
</tr>
<tr>
<td></td>
<td>“Unless specifically stated otherwise any product or service that is described as having ‘received type approval by the Overseeing Organisation’ in the Specification and associated documents, such type approval shall be deemed to be that given by the Highways Agency and, as such, shall be acceptable for use in the Works.”</td>
</tr>
<tr>
<td></td>
<td>“If the Contractor proposes to use a product or service that does not have such type approval he shall submit, with adequate notice, sufficient details of his proposed alternatives to the Overseeing Organisation to allow proper consideration of its acceptability.”</td>
</tr>
<tr>
<td>006</td>
<td>Delete the text “Overseeing Organisations acknowledge” and replace with “Employer acknowledges”</td>
</tr>
</tbody>
</table>
### WORKS INFORMATION – Specification

<table>
<thead>
<tr>
<th>Series 100 Preliminaries</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>101</strong></td>
<td>Delete sub-clause 2 and replace with:</td>
</tr>
<tr>
<td></td>
<td>“Any temporary accommodation requested in any Package Order shall be ready for occupation on the date stated in that Package Order”.</td>
</tr>
<tr>
<td></td>
<td>Delete sub-clause 4 and replace with “not used”.</td>
</tr>
<tr>
<td><strong>109</strong></td>
<td>Delete “stated in Appendices 1/9, 2/4, 6/3 6/13 and Clause 607” from the end of sub-clause 109.2 and replace with “as required by the Employer’s Environmental and Street Enforcement Team”.</td>
</tr>
<tr>
<td><strong>116</strong></td>
<td>Delete sub-clause 4 and replace with:</td>
</tr>
<tr>
<td></td>
<td>“The Contractor shall closely liaise with statutory undertakers prior to undertaking any excavation in the highway and comply with the guidance contained in:</td>
</tr>
<tr>
<td></td>
<td>‘Avoidance of Danger From Overhead Electrical Lines’ (GS6) published by the Health and Safety Executive.</td>
</tr>
<tr>
<td></td>
<td>‘Avoiding Danger From Underground Services’ (HSG47) published by the Health and Safety Executive.”</td>
</tr>
<tr>
<td><strong>201</strong></td>
<td>Delete sub clause 1 and insert the following:</td>
</tr>
<tr>
<td></td>
<td>“The Contractor shall only demolish, break up and remove those buildings, structures, vegetation or superficial obstructions on Site that are specifically identified in the instructing Package Order. He shall clear each part of the Site, and undertake any specified partial demolition of structures, only at the times and to the extent indicated in the instructing Package Order. The Contractor shall ensure that all individual trees, shrubs, hedges and other features, except those scheduled for removal, are suitably identified, protected and preserved. Where necessary underground structures, chambers and foundations shall be demolished or properly cleaned out or filled as instructed on site by the Overseeing Organisation. Where necessary disused soil and surface water drains, sewers, cables and ducts, together with any bed or haunch or surround within the working area shall only be removed or left in position at the instruction of the Overseeing Organisation.</td>
</tr>
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<table>
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<tr>
<th>Series 300 Fencing</th>
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<td><strong>302</strong></td>
<td>Delete the first two sentences of sub-clause 1 and replace with:</td>
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WORKS INFORMATION – Specification

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<tr>
<th><strong>Series 500 Drainage</strong></th>
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<tr>
<td>309</td>
<td>Delete the words “patrolled or” from the third line of sub-clause 3.</td>
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<table>
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<th><strong>Series 600 Earthworks</strong></th>
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<tr>
<td>518.4</td>
<td>Delete penultimate sentence and replace with “The colour of ducting pipes shall be in accordance with National Joint Utilities Group Publication No.7”.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Series 700 Road Pavements – General</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>709 Insert, as sub-clause 12:</td>
<td></td>
</tr>
<tr>
<td>“Where, during milling operations, cobbled paving or other surface that cannot be satisfactorily milled are encountered within the milling depth, the Contractor shall reduce the depth of milling sufficiently to skim over the exposed surface and shall ensure that all loose material is removed from the surface of the cobbles prior to the application of any bituminous overlay or bond coat. The Contractor shall also notify the Overseeing Organisation, as soon as reasonably practical, of the nature, depth and extent of the exposed surface. The Contractor shall then adjust the levels and thicknesses of overlaying materials in accordance with instructions issued by the Overseeing Organisation. Where the Overseeing Organisation accepts that it is necessary for the expeditious execution of the Works for the Contractor to overlay the</td>
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</tbody>
</table>
exposed surface in the absence of any inspection by the Overseeing Organisation, the Contractor shall ensure that he can subsequently produce suitable photographs, measurements and other records to enable the Overseeing Organisation to validate the work that the Contractor has undertaken.”

Appendix F

Delete the existing entry from Section 5 (i), the following entry:

“Chapter 8. Traffic Safety Measures and Signs for Road Works and Temporary Situations. 1991”

And replace with the following text:


Delete all of the Traffic Engineering - Advice Notes, and the Traffic Engineering Standards, listed as items (xv) to (xviii) inclusive, from Section 5.

Add to Section 12:

(xiii) “Safety at Street Works and Road Works” (2001): A Code of Practice issued by the Secretary of State for Transport, Local Government and the Regions, the Scottish Executive and the National Assembly for Wales

(xiv) “Guidance for Safer Temporary Traffic Management” published by the Transport Research Laboratory on behalf of the County Surveyors’ Society, Highways Agency and the Health and Safety Executive.

(xv) ”Avoidance of Danger From Overhead Electrical Lines“ (GS6) published by the Health and Safety Executive.

(xvi) ”Avoiding Danger From Underground Services“ (HSG47) published by the Health and Safety Executive.”
WORKS INFORMATION – Specification

APPENDIX 0/3: LIST OF NUMBERED APPENDICES REFERRED TO IN THE SPECIFICATION AND INCLUDED IN THE CONTRACT

This is a complete list of the Numbered Appendices referred to in the Specification for Highway Works as modified for this Contract.

<table>
<thead>
<tr>
<th>Status</th>
<th>Appendix No.</th>
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<td>0/2</td>
<td>0/2</td>
<td>Contract-specific Minor Alterations to Existing Clauses, Tables and Figures Included in the Contract</td>
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<tr>
<td>0/3</td>
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<td>List of Numbered Appendices Referred to in the Specification and Included in the Contract</td>
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<td>0/4</td>
<td>0/4</td>
<td>List of Drawings Included in the Contract</td>
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<td>Special National Alterations of the Overseeing Organisations of Scotland/Wales/Northern Ireland</td>
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<td>PRELIMINARIES</td>
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<td>Temporary Accommodation and Equipment for the Overseeing Organisation</td>
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<td>Vehicles for the Overseeing Organisation</td>
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<td>Communication System for the Overseeing Organisation</td>
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<td>Working and Fabrication Drawings</td>
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<td>Testing to be Carried out by the Contractor</td>
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<td>1/6</td>
<td>Supply and Delivery of Samples to the Overseeing Organisation</td>
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<td>1/7</td>
<td>Site Extent and Limitations on Use</td>
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<td>Operatives for the Overseeing Organisation</td>
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<td>Control of Noise and Vibration</td>
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<td>Structures to be Designed by the Contractor</td>
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<td>Structural Elements and Other Features to be Designed by the Contractor</td>
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<td>1/12</td>
<td>Setting Out and Existing Ground Levels</td>
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<td>1/13</td>
<td>Contractor’s Programme</td>
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<td>1/14</td>
<td>Payment Applications</td>
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<td>1/15</td>
<td>Accommodation Works</td>
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<td>1/16</td>
<td>Privately and Publicly Owned Services &amp; Supplies</td>
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<td>1/17</td>
<td>Traffic Safety and Management</td>
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<td>Temporary Diversions for Traffic</td>
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<td>Recovery Vehicles for Breakdowns</td>
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<td>Information Boards</td>
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<td>Progress Photographs</td>
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## WORKS INFORMATION – Specification

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<th>Risks to Health and Safety from Materials and Substances</th>
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<td>Quality Management System</td>
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<td>Temporary Closed Circuit Television (CCTV) System for the Monitoring of Traffic</td>
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<td>Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Road Works (TASCAR)</td>
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<td>Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Road Works (TASCAR) – Particular Requirements</td>
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### SITE CLEARANCE

| 2/1 | General Site Clearance |
| 2/2 | Filling of Trenches & Pipes |
| 2/3 | Retention of Material Arising from Site Clearance |
| Not used | 2/4 | Explosives & Blasting |
| Not used | 2/5 | Hazardous Materials |

### FENCING AND ENVIRONMENTAL BARRIERS

| 3/1 | Fences and Gates |

### SAFETY FENCES, SAFETY BARRIERS AND PEDESTRIAN GUARDRAIL

| 4/1 | Road Restraint Systems (Vehicle And Pedestrian) |
| Not used | 4/2 | Information Required to Demonstrate Compliance With Road Restraint Systems To Bs En 1317-1, Bs En 1317-2, Bs En 1317-3 and Dd Env 1317-4:2002 |

### DRAINAGE AND SERVICE DUCTS

| 5/1 | Drainage Requirements |
| 5/2 | Drainage and Service Duct Requirements |
| Not used | 5/3 | Surface Water Channels and Drainage Channel Blocks |
| Not used | 5/4 | Fin Drains and Narrow Filter Drains |
| Not used | 5/5 | Combined Drainage and Kerb Systems |
| Not used | 5/6 | Linear Drainage Channel Systems |
| Not used | 5/7 | Thermoplastics Structural Wall Pipes and Fittings |

### EARTHWORKS

| 6/1 | Requirements for Acceptability and Testing etc. of Earthworks Materials |
| 6/2 | Requirements for Dealing with Class U2 Unacceptable Material |
| 6/3 | Requirements for Excavation, Deposition, Compaction (Other than Dynamic Compaction) |
| Not used | 6/4 | Requirements for Class 3 Material |
### WORKS INFORMATION – Specification

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<th>Geotextiles Used to Separate Earthworks Materials</th>
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<td>Fill to Structures &amp; Fill Above Structural Foundations</td>
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<td>6/7</td>
<td>Sub-formation &amp; Capping &amp; Preparation &amp; Surface Treatment of Formation</td>
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<td>Topping, Grass Seeding and Turfing</td>
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<td>6/9</td>
<td>Earthwork Environmental Bunds, Landscape Areas, Strengthened Embankments</td>
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<td>Ground Anchorages, Crib Walling and Gabions</td>
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<td>Swallow Holes &amp; Other Naturally Occurring Cavities &amp; Disused Mine Workings</td>
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<td>6/12</td>
<td>Instrumentation &amp; Monitoring</td>
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### ROAD PAVEMENTS – GENERAL

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<th>Permitted Pavement Options (Schedules 1, 2, 3, 4 &amp; 5)</th>
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<td>Localised Reinstatements</td>
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<td>Surface Dressing – Performance Specification Sheets 1, 2 &amp; 3</td>
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<td>Bond Coats, Tack Coats and Other Bituminous Sprays (Sheets 1, 2 &amp; Binder Data Sheet)</td>
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<td>7/5</td>
<td>In Situ Recycling: The Remix and Repave Processes</td>
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<td>7/6</td>
<td>Breaking Up or Perforation of Existing Pavement</td>
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<td>7/7</td>
<td>Slurry Surfacing Incorporating Microsurfacing (Sheets 1, 2 &amp; 3)</td>
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<tr>
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<td>7/8</td>
<td>Not Used</td>
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<td>7/9</td>
<td>Cold-Milling (Planing) of Bituminous Bound Flexible Pavement</td>
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<td>Worksheet Pro Forma for Results of Testing for Constituent Materials in Recycled Coarse Aggregate and Recycled Concrete Aggregate</td>
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<td>Overband and Inlaid Crack Sealing Systems</td>
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<td>Arrester Beds</td>
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<td>Saw-Cut Crack and Seal Bituminous Overlays on Existing Jointed Concrete Pavements</td>
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<td>Preparation of Jointed Concrete Pavements Prior to Overlaying and Saw-Cut and Seal of Bituminous Overlay</td>
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<td>Saw-Cut, Crack and Seal Existing Jointed Reinforced Concrete Pavements</td>
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<td>Cracking and Seating of Jointed Unreinforced Concrete Pavements and CBM Bases</td>
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<td>7/17</td>
<td>Cracking Plant and Equipment Progress Record</td>
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<td>7/18</td>
<td>Site Specific Details and Requirements for Cold Recycled Bitumen Bound Material</td>
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<td>Site Specific Details and Requirements for Recycled Cement Bound Material</td>
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Tender Document (v1)
**WORKS INFORMATION – Specification**

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<th>Site Specific Details and Requirements for Inducing Cracks</th>
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<td>Surface Dressing – Recipe Specification (Sheets 1, 2 &amp; Binder Data Sheet)</td>
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<td>Repair to Potholes</td>
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**ROAD PAVEMENTS – CONCRETE AND CEMENT BOUND MATERIALS**

| Not used | 10/1 | Plant and Equipment for the Construction of Exposed Aggregate Concrete Surface |

**KERBS, FOOTWAYS AND PAVED AREAS**

| Not used | 11/1 | Kerbs, Footways and Paved Areas |
| Not used | 11/2 | Access Steps |

**TRAFFIC SIGNS**

| Not used | 12/1 | Traffic Signs: General |
| Not used | 12/2 | Traffic Signs: Marker Posts |
| Not used | 12/3 | Traffic Signs: Road Markings and Studs |
| Not used | 12/4 | Traffic Signs: Cones, Cylinders, FTD’s and Other Traffic Delineators |
| Not used | 12/5 | Traffic Signs: Traffic Signals |
| Not used | 12/6 | Traffic Signs: Special Sign Requirements on Gantries |

**ROAD LIGHTING COLUMNS AND BRACKETS**

| Not used | 13/1 | Information to be Provided When Specifying Lighting Columns and Brackets |
| Not used | 13/2 | (Specification for Highway Works) Typical Lighting Column & Bracket Data Sheets 1 & 2 |
| Not used | 13/3 | Instructions for Completion of Column & Bracket Data Sheets |
| Not used | 13/4 | Information to be Provided When Specifying CCTV Masts |
| Not used | 13/5 | (Specification for Highway Works) Typical CCTV Mast Data Sheet |
| Not used | 13/6 | Instructions for Completion of Mast Data Sheets |

**ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS**

| Not used | 14/1 | Site Records |
| Not used | 14/2 | Location of Lighting Units and Feeder Pillars |
| Not used | 14/3 | Temporary Lighting |
| Not used | 14/4 | Electrical Equipment for Road Lighting |
| Not used | 14/5 | Electrical Equipment for Traffic Signs |

**MOTORWAY COMMUNICATIONS**

| Not used | 15/1 | Motorway Communications |
| Not used | 15/2 | Cable Duct Requirements |
# WORKS INFORMATION – Specification

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<td>Not used</td>
<td>16/2</td>
<td>General Requirements for Piling and Embedded Retaining Walls</td>
</tr>
<tr>
<td>Not used</td>
<td>16/3</td>
<td>Precast Reinforced and Prestressed Concrete Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/4</td>
<td>Bored Cast-in-Place Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/5</td>
<td>Bored Piles Constructed Using Continuous Flight Augers and Concrete or Grout Injection through Hollow Auger Stems</td>
</tr>
<tr>
<td>Not used</td>
<td>16/6</td>
<td>Driven Cast-in-Place Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/7</td>
<td>Steel Bearing Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/8</td>
<td>Reduction of Friction on Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/9</td>
<td>Non-Destructive Methods for Testing Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/10</td>
<td>Static Load Testing of Piles</td>
</tr>
<tr>
<td>Not used</td>
<td>16/11</td>
<td>Diaphragm Walls</td>
</tr>
<tr>
<td>Not used</td>
<td>16/12</td>
<td>Hard/Soft Secant Pile Walls</td>
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<tr>
<td>Not used</td>
<td>16/13</td>
<td>Contiguous Bored Pile Walls</td>
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<tr>
<td>Not used</td>
<td>16/14</td>
<td>King Post Walls</td>
</tr>
<tr>
<td>Not used</td>
<td>16/15</td>
<td>Steel Sheet Piles</td>
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<td>Not used</td>
<td>16/16</td>
<td>Integrity Testing of Wall Elements</td>
</tr>
<tr>
<td>Not used</td>
<td>16/17</td>
<td>Instrumentation for Piles and Embedded Walls</td>
</tr>
<tr>
<td>Not used</td>
<td>16/18</td>
<td>Support Fluid</td>
</tr>
</tbody>
</table>

## STRUCTURAL CONCRETE

| Not used | 17/1 | Concrete – Classification of Mixes |
| Not used | 17/2 | Concrete – Impregnation Schedule |
| Not used | 17/3 | Concrete – Surface Finishes |
| Not used | 17/4 | Concrete – General |
| Not used | 17/5 | Buried Concrete |
| Not used | 17/6 | Grouting and Duct Systems for Post-tensioned Tendons |

## STRUCTURAL STEELWORK

| Not used | 18/1 | Requirements for Structural Steelwork |

## PROTECTION OF STEELWORK AGAINST CORROSION

| Not used | 19/1 | New Works - Paint System Sheet |
| Not used | 19/2 | Requirements for Other Work |
| Not used | 19/3 | New Works - Paint Data Sheet |
| Not used | 19/4 | (Specification for Highway Works) Form HA/P3 Paint Sample Despatch List: Sheets 1 and 2 |
| Not used | 19/5 | New Painting Works - General Requirements |

## WATERPROOFING FOR STRUCTURES

| Not used | 20/1 | Waterproofing for Concrete Structures |
## WORKS INFORMATION – Specification

<table>
<thead>
<tr>
<th>Section</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BRIDGE BEARINGS</strong></td>
<td>21/1</td>
<td>Bridge Bearing Schedule</td>
</tr>
<tr>
<td><strong>PARAPETS</strong></td>
<td>22/1</td>
<td>Parapet Schedule</td>
</tr>
<tr>
<td><strong>BRIDGE EXPANSION JOINTS AND SEALING OF GAPS</strong></td>
<td>23/1</td>
<td>Bridge Deck Expansion Joint Schedule</td>
</tr>
<tr>
<td></td>
<td>23/2</td>
<td>Sealing of Gaps Schedule (Other than in Bridge Deck Expansion Joints)</td>
</tr>
<tr>
<td><strong>BRICKWORK, BLOCKWORK AND STONWORK</strong></td>
<td>24/1</td>
<td>Brickwork, Blockwork and Stonework</td>
</tr>
<tr>
<td><strong>SPECIAL STRUCTURES</strong></td>
<td>25/1</td>
<td>Requirements for Corrugated Steel Buried Structures</td>
</tr>
<tr>
<td></td>
<td>25/2</td>
<td>Requirements for Reinforced Soil and Anchored Earth Structures</td>
</tr>
<tr>
<td></td>
<td>25/3</td>
<td>Requirements for Pocket-Type and Grouted Cavity Reinforced Brickwork Retaining Wall Structures</td>
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<td></td>
<td>25/4</td>
<td>Environmental Barriers</td>
</tr>
<tr>
<td></td>
<td>25/5</td>
<td>Requirements for Buried Rigid Pipes for Drainage Structures</td>
</tr>
<tr>
<td><strong>MISCELLANEOUS</strong></td>
<td>26/1</td>
<td>Ancillary Concrete</td>
</tr>
<tr>
<td></td>
<td>26/2</td>
<td>Bedding Mortar</td>
</tr>
<tr>
<td></td>
<td>26/3</td>
<td>Cored Thermoplastic Node Markers</td>
</tr>
<tr>
<td><strong>MAINTENANCE PAINTING OF STEELWORK</strong></td>
<td>50/1</td>
<td>Maintenance Painting - Paint System Sheet</td>
</tr>
<tr>
<td></td>
<td>50/2</td>
<td>Requirements for Other Work</td>
</tr>
<tr>
<td></td>
<td>50/3</td>
<td>Maintenance Painting - Paint Data Sheet</td>
</tr>
<tr>
<td></td>
<td>50/4</td>
<td>(Specification for Highway Works) Form HA/P3 Paint Sample Despatch List: Sheets 1 and 2</td>
</tr>
<tr>
<td></td>
<td>50/5</td>
<td>Maintenance Painting - General Requirements</td>
</tr>
</tbody>
</table>
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APPENDIX 0/4: LIST OF DRAWINGS INCLUDED IN THE CONTRACT

(i) Contract - Specific Drawings Supplied to each Tenderer

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST/1/10</td>
<td>Detail of Information Board</td>
</tr>
<tr>
<td>ST/11/01</td>
<td>Detail of Reinforced Kerb Bedding</td>
</tr>
<tr>
<td>ST/11/06</td>
<td>Standard Details of Footway Construction</td>
</tr>
<tr>
<td></td>
<td>and Edging</td>
</tr>
<tr>
<td>SD/12/01</td>
<td>Foundation Details for Permanent Traffic</td>
</tr>
<tr>
<td></td>
<td>Signs</td>
</tr>
<tr>
<td>SD/402</td>
<td>Pedestrian Guardrail Type 1</td>
</tr>
<tr>
<td>SD/404</td>
<td>Pedestrian Guardrail Type 2</td>
</tr>
<tr>
<td>SD/413</td>
<td>Pedestrian Guardrail Type 3</td>
</tr>
<tr>
<td>SD/423</td>
<td>Pedestrian Guardrail Type 4</td>
</tr>
<tr>
<td>SD/425</td>
<td>Pedestrian Guardrail Type 5</td>
</tr>
</tbody>
</table>

(ii) Inspected by Tenderers

No drawings are to be made available for inspection by tenderers

(iii) Brought Into the Contract by Reference

Highway Construction Details (HCD) published by The Stationery Office as Volume 3 of the Manual of Contract Documents for Highway Works contain the following drawings brought into the contract by reference. Unless otherwise stated below the whole drawing is brought into the contract.

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Title</th>
<th>Date</th>
<th>Aspect/Alternative required if not whole drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1/A</td>
<td>Surface Water Drains – Trench &amp; Bedding Details</td>
<td>Dec 1991</td>
<td>All</td>
</tr>
<tr>
<td>F3/D</td>
<td>Type 1 Chamber (Brick or In Situ Concrete Manhole)</td>
<td>Nov 2003</td>
<td>All</td>
</tr>
<tr>
<td>F4/D</td>
<td>Type 2 Chamber (Brick or In Situ Concrete Manhole)</td>
<td>Nov 2004</td>
<td>All</td>
</tr>
<tr>
<td>F5/E</td>
<td>Type 3 Chamber (Brick or In Situ Concrete Manhole)</td>
<td>Nov 2004</td>
<td>All</td>
</tr>
<tr>
<td>F13/D</td>
<td>Precast and In Situ Cast Gullies</td>
<td>May 2005</td>
<td>All</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>H2/B</th>
<th>Temporary Fences Type 3 &amp; 4</th>
<th>May 2004</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>H11/D</td>
<td>Accommodation Works Chain Link Fences</td>
<td>May 2004</td>
<td>All</td>
</tr>
<tr>
<td>H13/E</td>
<td>Accommodation Works Strained Wire Fences (General Pattern)</td>
<td>May 2004</td>
<td>All</td>
</tr>
<tr>
<td>H14/E</td>
<td>Accommodation Works Timber Palisade and Close Boarded Fences</td>
<td>May 2004</td>
<td>All</td>
</tr>
<tr>
<td>H15/D</td>
<td>Accommodation Works Wooden Post and 3 Rail Fences</td>
<td>May 2004</td>
<td>All</td>
</tr>
<tr>
<td>I2/B</td>
<td>Duct Trench Cross-Sections &amp; Details of Transverse Ducts</td>
<td>May 2004</td>
<td>All</td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

APPENDIX 1/3: COMMUNICATION SYSTEM

1. Each mobile telephone provided shall have an answering service for use when the telephone is busy or switched off.

2. Each mobile telephone shall be supplied complete with carrying case, 2 No. long life rechargeable batteries, quick charger/conditioner, in-car hands free kit (including fitting into a vehicle nominated by the Overseeing Organisation if instructed and a wireless headset connection facility.

3. Each mobile telephone shall be digital and shall have a bar facility stopping them from making Premium Rate or International calls.
WORKS INFORMATION – Specification

APPENDIX 1/5 - TESTING TO BE CARRIED OUT BY THE CONTRACTOR

1 The testing of all materials for use in the works shall be carried out by, or on behalf of, the Contractor as instructed by the Overseeing Organisation, to demonstrate compliance with the specification, appropriate British or European Standards etc. The tests that may be required shall be any of those that are relevant to the materials used, as included in Table NG 1/1 in the Manual of Contract Documents for Highway Works, Volume 2, Notes for Guidance on the Specification for Highway Works. The Contractor is reminded that, as stated in the Preambles to the Price List, the cost of testing shall be included in his tendered rates.

2 The grading and binder content of bituminous mixes shall be sampled and tested daily for each material used. Where the same type of material is being supplied by more than one mixing plant, then material from each plant shall be tested. One sample shall be tested from the first 100 tonne of each material laid each day with a further sample for each additional 150 tonnes or part thereof. Testing must be carried out by a UKAS accredited laboratory and the results must be given to the Overseeing Organisation within 14 days of the material being laid. The Contractor shall number each sample consecutively and shall note, on a sampling certificate in a form to be agreed with the Overseeing Organisation: -

   (i) the type of material and supplier;

   (ii) date, time and location of sampling;

   (iii) ticket number of load;

   (iv) temperature of load, laying and rolling.
WORKS INFORMATION – Specification

APPENDIX 1/6 – SUPPLY AND THE DELIVERY OF SAMPLES TO THE OVERSEEING ORGANISATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The preparations for and methods of taking samples, together with their size, preservation and handling shall be in accordance with the relevant British Standards. Accepted method</td>
</tr>
<tr>
<td>2</td>
<td>All samples shall be protected at all times from temperatures below 5° C. Protection against freezing</td>
</tr>
<tr>
<td>3</td>
<td>The Contractor shall take samples as and when directed or requested by the Overseeing Organisation. Sampling frequency</td>
</tr>
<tr>
<td>4</td>
<td>The Contractor shall be responsible for the packing of all samples and their transport to the testing laboratory. Packing of samples</td>
</tr>
<tr>
<td>5</td>
<td>All samples shall be kept for a period of not less than one month after submission of the record and results shall be discarded after that time only on the instructions of the Overseeing Organisation. The Overseeing Organisation may request that certain samples be retained either by the Contractor or sent elsewhere. Retention and disposal of samples</td>
</tr>
<tr>
<td>6</td>
<td>The Contractor shall be required to forward certificates by independent laboratories confirming the compliance of materials to the specification. Initially, he will be required to submit certificates at the pre-contract meeting of the following materials:- Initial tests</td>
</tr>
<tr>
<td>7</td>
<td>Granular sub base material type I Clause 803 Granular sub base material type I Clause 804 Sharp sand medium coarse grading to BS882:1983 Premixed lime mortar Clause 2405 Pre-coated chippings to Appendix 7/1 Coarse aggregate for use in surface course or any others items requested at the pre-contract meeting.</td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

8 Prior to commencing works the Contractor shall provide the names and addresses of his suppliers of materials as instructed by the Overseeing Organisation.

9 During the course of the works the Contractor shall take samples of all materials delivered to site as detailed in Appendix 1/5. The sampling of bituminous surfacing materials shall be carried out by allowing the delivery lorry to discharge half of its load into the power hopper then backing-off. Six portions shall be taken from the face of the material in the hopper and the portions shall be combined to form the sample.
WORKS INFORMATION – Specification

APPENDIX 1/7 - SITE EXTENT AND LIMITATIONS ON USE

1 Site Extent

The extent of the Site shall be the particular location as described in the instructing Package Order.

2 Limitations on the Use of Sites

Occupation of the Site
The Contractor shall work within the Normally Permitted Working Hours stated below, and any time other constraints that apply or are stated in the instructing Package Order, unless otherwise specifically instructed or permitted by the Overseeing Organisation.

The Normally Permitted Working Hours shall be:

- Monday to Friday: 07:30 – 18:00 hours
- Saturday: 07:30 – 13:00 hours
- Public Holidays: No working permitted (unless permitted or instructed)

The Contractor shall, at all times, limit his occupation of any Site to a reasonable minimum to carry out safely the work that he has been instructed to do.

Noise and Vibration
The Contractor shall, other than in accordance with a specific instruction or permission given by the Overseeing Organisation and the Employer’s Environmental Protection & Safety Team, work within the Employer’s requirements in respect of the control of noise and vibration, as stated in Clause 109 and Appendix 1/9 and on any particular Package Order.

Public Safety and Traffic Management
The Contractor shall, other than in accordance with a specific instruction or permission given by the Overseeing Organisation, work within the requirements in respect of public safety and traffic management, stated in this Service Information as well as the requirements in respect of health and safety planning stated in Appendix 1/23 of this Specification.

Petroleum and Gas
No acetylene, oxygen, propane or other gas cylinders, or fuels shall be stored on Site without the prior written consent of the Overseeing Organisation. The Contractor’s arrangements for the safe storage of such materials shall be fully described in the Health and Safety Plan and the Contractor shall ensure that such arrangements are adhered to at all times.

Service Covers
The Contractor shall ensure that access to apparatus owned and operated by Statutory Undertakers is not unreasonably obstructed at any time.
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Limitations on Footway Relay Work and Vehicle Crossover Construction
The Contractor is reminded of the constraints on the extent of footway to be taken up that are stated in Clause 1170AR.3 and the constraints on the timing for completion of vehicle crossover construction stated in Clause 1172AR.3.
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APPENDIX 1/9 - CONTROL OF NOISE AND VIBRATION

1 The London Borough of Barnet has informally agreed that the following measures would be acceptable to it and these are given as a guide. However it is for the Contractor to decide whether to seek the London Borough of Barnet's formal consent to his proposed methods of work and to the steps he proposed in order to minimise noise.

2 The Normally Permitted Working Hours for the Works shall be as stated in Appendix 1/7 but, unless expressly instructed or permitted to act otherwise, the Contractor shall comply with the Employer’s noise restraint requirements, under Section 60 of the Control of Pollution Act 1974, which restrict hours of noisy operations to the following:

- 0800 - 1800 hours Mondays to Fridays
- 0800 - 1300 Saturdays
- At no times on Sundays and Bank Holidays.

When works are instructed or permitted to be undertaken outside of these hours, the Contractor shall plan the timing of such works to ensure that they can be carried out safely with minimum disruption to residents and minimum delay to traffic. The Contractor shall also note that work in the same locality shall not be permitted for more than two consecutive nights, unless expressly permitted or instructed by the Overseeing Organisation.

3 The total noise level from all sources when measured 2.0m above the ground at noise control stations selected by the Overseeing Organisation shall not exceed by more than 3dB(A) the ambient equivalent continuous noise level, Leq, at the control station measured over the same period. Exceptionally, the Contractor may be given permission to carry out works which exceed the noise levels above provided that 7 days' notice of the date and timing of these works is given to the Overseeing Organisation and the Contractor demonstrates that he intends to take all reasonable measures to mitigate the noise nuisance. After consultations with the Environmental Health Department and the Health and Safety Executive and any other parties a decision will be given within three days of receipt of the notice.

4 All plant and machinery in use shall be properly silenced and maintained in accordance with the manufacturer's instructions and operated in accordance with BS 5228: 1984. Maintenance of plant shall not be carried out between 1800 and 0730 hours Monday to Friday and 1300 hours Saturday to 0730 hours Monday without the written permission of the Overseeing Organisation, except when the work is essential for the saving of life or property or for the safety of the Works.

5 No machine shall be permitted which uses a system of dropping a heavy weight, whether power assisted or by gravity, for the purpose of breaking up paving or foundations. In general, all such equipment shall be hydraulically activated, unless the Overseeing Organisation is satisfied that the use of such equipment is impracticable or unnecessary in the circumstances.
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6 The Contractor shall use the best practicable means to keep noise, dust and fumes arising from the works to a minimum and/or to the satisfaction of the Overseeing Organisation.
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APPENDIX 1/12 – SETTING OUT

1 Setting out shall be entirely the responsibility of the Contractor. If he considers the setting out drawings or instructions issued by the Overseeing Organisation to be incorrect, unclear or unintelligible, he must request clarification from the Overseeing Organisation before starting work.

2 After setting out, the Contractor shall inform the Overseeing Organisation, who will check the setting out. The Overseeing Organisation may make changes to take account of unforeseen circumstances or inaccuracies in the drawings.

3 The Contractor shall not commence either general site clearance or fencing before obtaining the acceptance of the Overseeing Organisation to the setting out of the site boundaries.

4 The Contractor shall work from an Ordnance Survey Benchmark, establish and maintain a temporary benchmark on the site.
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APPENDIX 1/13: PROGRAMME OF WORKS AND METHOD OF WORKING

Programme of Works & Method Statements

1 The Contractor shall provide a quarterly programme in the form of a bar chart. It shall show the level of detail appropriate at each stage of the works and all activities and constraints, including those listed Appendix 1/7, each of which shall be given a short title. All events shall be numbered and annotated with earliest and latest event dates. Each planned operation should be referenced to a detailed Method Statement, which shall be submitted with the quarterly programme, unless the Method Statement has previously been submitted. Each Method Statement shall include:

1) Location or Works/Project Name
2) Date of Site Inspection
3) Date of Notification of Work to Residents, businesses, traders etc.
4) Type of and a Statement for the works
5) Method of Working including Traffic Safety and Management
6) Storage of Plant and Materials
7) Anticipated Programme
8) Supervisor for the Work (including contact nos.)
9) Foreman for the work.
10) Any other relevant information.

2 On borough roads where the full depth of flexible surfacing (normally 30-80mm deep) is being planed off, the Contractor will generally be required to programme the planing off and any minor repairs to road base and laying of the base course flexible surfacing to be carried out sequentially, preferably on the same day. Although the output rates will depend on the particular site location and prevailing weather conditions, the following rates will be used for guidance by the Overseeing Organisation when agreeing to the time for completion of each project. The rates are for a full working weekday within the Normally Permitted Working Hours, stated in Appendix 1/7, and include an allowance for time the establishment and subsequent removal of temporary traffic management and safety measures.

   a. Plane-off up to 40mm Dense Macadam or rolled asphalt surfacing 1500 m²/day
   b. Provide and lay Dense Macadam surface course or binder course or SMA type surface course 160 tonne per day
   c. Provide and lay HRA surface course 140 tonne per day

3 Once a Package Order has been issued to the Contractor, the Contractor shall submit to the Overseeing Organisation any proposed changes to his standard
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Method Statement, made necessary as a result of changes to his Construction Phase Health and Safety Plan.
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APPENDIX 1/14: PAYMENT APPLICATIONS

1 The Contractor is reminded that the Employer is not able to make any interim or final payments for work carried out until he has raised a Purchase Order and that he cannot raise a Purchase Order on his “SAP” financial management system until the Contractor’s assessment of the amount due (required in accordance with Clause 50 of the Conditions of Contract) has been agreed by the Employer. This is because “SAP” system will not authorise payment of the amount due unless it agrees exactly with the value of the Purchase Order. This does not affect the Contractor’s entitlement to payment for works instructed by the issue of a Package Order. The Contractor shall submit the final payment application for each Package Order not later than three calendar months after its Completion.

2 The Contractor shall, with each submitted application for payment, submit the Price for Work Done to Date in the following format:

- The Price List item numbers, completed quantities, rates and values;
- Any adjustments applied, with reasons;
- Other amounts to be paid to the Contractor by the Employer;
- Deductions of amounts to be paid by the Employer to the Contractor;
- VAT at the applicable rate.
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APPENDIX 1/15: ACCOMMODATION WORKS

1 The Contractor shall undertake the Accommodation Works as stated in the instructing Package Order or as instructed by the Overseeing Organisation.

2 The Contractor shall not work on any property that does not belong to the Employer without the Employer’s prior written instruction to do so.
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APPENDIX 1/16: PRIVATELY AND PUBLICLY OWNED SERVICES AND SUPPLIES

1 The Contractor shall make arrangements with the Statutory Undertakers and others concerned, in accordance with the Special Requirements set out by Clause Z8 of the conditions of contract for the co-ordination of his work with all work which need to be done by them or their Contractors concurrently with the works. Compliance with the period of notice given in this Appendix does not relieve the Contractor of his obligations.

2 Because details of private services to individual properties are not generally shown on drawings supplied by statutory undertakers, the Contractor shall assume that they are always present when carrying out any excavation and shall make arrangements with the Statutory Undertakers and other concerned for the phasing of all necessary disconnections and diversions of private services affected by the works.

3 Disconnected apparatus can be removed by the Contractor only with the prior acceptance of the Authority concerned.

4 Should any Statutory body carry out any work during the maintenance period of the Contract, after the Contractor has left the site, reinstatement will be carried out in accordance with the New Roads and Street Works Act 1991 and amendments, but the execution of the work will in no way affect the Contractor’s liability to maintain the balance of the work.

5 The names, addresses and telephone numbers of the other authorities serving in the borough are listed below:

The names, addresses and telephone numbers of the authorities serving in the locality are listed below:

EDF Energy plc
Mapping Services
Fore Hamlet
Ipswich
Suffolk IP3 8AA
Tel: (08701 963 797)

National Grid Co. plc
NRSWA Enquiries
Wealdon Area
Wealdon House
Lewes Road
East Grinstead
West Sussex RH19 3TT
Tel: 01342313066
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National Telecommunications
Crawley Court
High Street
Waltham Cross
Herts EN8 70J
Tel: 02089233121

Cable London plc
Planning Department
Television House
60-70 Clarendon House
Hornsey
London N8 ODJ
Tel: 020 7911 0555
Fax: 020 7292 1260

Environment Agency
Thames Region
Apollo Court
2 Bishop Square Business Park
St. Albans Road West
Hatfield ALIO 9EX
Tel: 01707633000
Fax: 01707632500

British Waterways
The Toll House
Delemare Terrace
Little Venice
London W2 6ND
Attn: Mr M Venstead
Tel: 02072866101
Fax: 020 7286 7306

Network Rail
Eastern Region
Permanent Way Engineer
Civil Engineering Building
Watermead Way
Tottenham Hale
London N17
Attn: Mr A Deards
Tel: 02074659689
Fax: 02079285151

Network Rail
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Hamilton House
Appold Street
London EC2 2AA
Attn: Paul Townsend
Tel: 02072952064
Fax: 02072952119

Ministry of Agriculture & Fisheries
Advisory Design Advice Service
Elmbridge Court
Cheltenham Road
Gloucester GL3 IAG
Attn: Mr B Griffin
Tel: 01452308388
Fax: 01452387691

EDF Energy plc
Mapping Services
Fore Hamlet
Ipswich
Suffolk IP3 8AA
Tel: (08701 963 797)

Thames Water (Clean)
Asset Location Services
Blake House
Manor Farm Road
Reading
Berks RG2 OJM
Tel: 01189 236 664

Thames Water (Waste)
Asset Location Services
Blake House
Manor Farm Road
Reading
Berks RG2 OJM
Tel: 01189 236 664

London Payphone Services
Southall Assembly Centre
Unit A, Bridge Road
Southall
Middlesex

Barkwood Construction Ltd
82 Lower Paddock Road
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Watford WDI 4DS
Contact: Cohn Lawes
Tel: 01923250092

Adshel
(Agents for London Transport)
Unit 10, Victoria Industrial Estate
Victoria road
London W3 6UU
Contact: Natalie Horsfield
Tel: 02088962480
Fax: 020 8896 8479

British Gas Transco
St James Road
Brentwood
Essex
CM4 4LH
Tel: 01277723223
Fax: 01277261846

Videotron Cable Communications
West London Division
Units K1 & K2, Fieldway
Bristol Road, Greenford
London UB6 8UN
Contact: Ranjit Chana
Tel: 02082442676

EDF Energy
4 Duke Street
Norwich
NR3 3AH
Contact: John Smith
Tel: 01603282537

Thames Water Utilities
Bartholomew Court
High Street
Waltham Cross EN8 7DD
Contact: Gihlian Field
Tel: 02089233131

British Telecom Plc
Post Point 706
Keybridge House
80 South Lambert Road
Vauxhall
WORKS INFORMATION – Specification

London SW8 I RG
British Telecom Plc (Northern Area)
NR& SWA Co-Ord, NLD 257
PP200, Citygate House
246-2 50 Romford Road
London E7 9HZ
Tel: 020 7406 9959

1PM Communications Ltd
7/10 Chandos Street
London
W1N 9DE

Three Valley Water
P.O. Box 48
Hatfield
Herts AL10 9HL

London Underground Ltd
Street Works Section, 4 floor
30 The South Colonade
Canary Wharf
London E14 5EU

Thames Water Utilities
Technical Centre
Rose Kiln Court
Rose Kiln Lane
Reading, Berks
RG2 OHP

National Grid Plc
Hams Lane
PO Box 7324
Birmingham
B46 IAR

Energis Communications Ltd
Street Works Office
Wealdon House, Lewes Road
East Grinstead
West Sussex RFI9 3TT

LT Bus Passenger Infrastructure
41h Floor, Bus Shelter Section
172 Buckingham Palace Road
London
SWIW 9TN

Tender Document (v1)
WORKS INFORMATION – Specification

Tel: 020 7482 3000
Fax: 020 7485 6544

Disablement Association
57 Fitzalan Road
Finchley
London
N3 3PG
Ms Sally Burningham

LT Planning
55 Broadway
London

New World Pay Phones Ltd
Axis 6, Rhodes Way
Radlett Road
Watford
Herts W2 4IP
Contact: Terry King
Tel: 01923211299

Metropolitan Police
North West Traffic Management Unit
Athlon Road
Alperton
Wembley HAO 1 EW

Head of Operations
London fire Brigade
Northern Area HQ
156 Harrow Road
London NW2 6ML
The Controller

London Buses
Edgware Bus Station
Edgware Garage
Station Road
Edgware
Peter Monger

Three Valleys Water (Clean)
Planned Enquiries
London Road
Borehamwood
Herts WD6 ILG
Tel: 01923 323 9944
WORKS INFORMATION – Specification

EDF Energy
261 City Road
London EC1V ILE
Tel: 0207251 5161
Susiephone Section
Roman road
London EC1V ILE
Tel: 020 7251 5161

J.C. Decaux UK Ltd
Goldhawk Industrial Estate
Unit 1-2A
Brackenbury Road
London W6 OSA
Tel: 020 8746 1000

Transport for London
Windsor House
42-50 Victoria Street
London
SW1H 0TL

Adshel
Unit 9 Newtons Court
Galleon Boulevard
Crossways Business Park
Dartford
DA2 6QL

Transport for London
Parnell House
2nd Floor
25 Wilton Road
London
SW1V 1 LW

Thames Water Utilities
Crossness STW, Admin Block
Belvedere Road
Abbey Wood
London SE2 9AQ
British Gas
3 The Square
Stockley Park
Uxbridge
UB11 1BN
WORKS INFORMATION – Specification

North London Gas Alliance
Brunel House
Uxbridge Road
Slough
SL2 5NA

Three Valleys Water
PO Box 48
Bishops Rise
Hatfield
Hertfordshire
AL10 9HL

National Grid Transco
Hinkley Operational Centre
Brick Kiln Street
Hinkley
Leicestershire
LE10 0NA

British Gas Transco
Plant Enquiries
Sandgate Close off Crow Lane
Romford
Essex RM7 OEH
Tel: 01708 778 124

NTL
Units K1 & K2 Fieldway
Bristol Road
Greenford
UB6 8UN

Atkins Telecom
PO Box 290
260 Aztec West
Almondsbury
Bristol
BS32 4WE

Fulcrum Connections
Carr House
Greasborough Road
Rotherham
S61 4QQ
WORKS INFORMATION – Specification

6. Services and Supplies Affected by the Works

Where necessary details of services and supplies affected by works will be provided by the Overseeing Organisation with the order for the execution of the works.

7. Damage to plant, services etc

The Contractor shall immediately report to the Overseeing Organisation any damage done to any underground plant, equipment, apparatus or works, and subject to the full implementation of safety measures and precautions, and where so ordered by the Overseeing Organisation and without cost to the Employer, effect the repairs without delay.

Should the authority or owner of the damaged plant, equipment, apparatus or works, carry out the repairs, the Contractor shall supply immediately any facilities or assistance necessary and repay to the authority or owner the full cost of the remedial work.

8. Diversion and protection of services

The Contractor shall take any and all measures reasonably required by any Public or Statutory Authority for the full protection of its mains, pipes, cables and other apparatus during the progress of the Works, and shall construct and provide to the satisfaction of the Authority concerned, all works necessary for the prevention of damage or interruption of services. If, in the execution of works, by reason of any subsidence or any act of neglect or default of the Contractor, any damage to any apparatus or any interruption of any service is caused, the Contractor shall bear and pay the cost reasonably incurred by the Authority involved in making good such damage, and shall make full compensation to the Authority for any loss sustained by reason of such interruption. Where necessary the Authority will obtain details of Statutory Undertakers’ mains, pipes etc and the Contractor may by prior arrangement with the Overseeing Organisation inspect them before or during the execution of work.

The Contractor shall, at all times during the progress of the works, afford facilities to properly accredited agents of any Public or Statutory Authority, as may be necessary for inspecting, reporting, maintaining, removing, renewing or altering such apparatus in connection with the construction of the Works or for any routeing purposes.

If it is necessary that a statutory authority raises its own cover and frame or should elect to do so, the Contractor must make all arrangements with the Statutory Authority for this to be done. The Employer is not responsible for any costs resulting from delay to the Contractor as a result of a Statutory Authority not carrying out their works as agreed.
WORKS INFORMATION – Specification

9. Temporary Bus Stop

When the Contractor needs a temporary bus stop he should contact London Transport Buses.

The current contact is: Chris Reed
London Transport Buses
Edgware Bus Station
Station Road
Edgware
Tel: 020-8381 1448
WORKS INFORMATION – Specification

APPENDIX 1/17 - TRAFFIC SAFETY AND MANAGEMENT

1. The Contractor shall be responsible for the traffic safety and management and associated work as described in Clause 117 and shall provide, erect, maintain and subsequently take down and remove such traffic signs, road markings, lamps, barriers and traffic control signals and such other measures as may be necessitated by the construction of the Works in accordance with the recommendations contained in Chapter 8 of the Traffic Signs Manual.

2. Where the circumstances of any particular case are not covered by the recommendations or result in the restriction of permitted movements by any class of traffic (pedestrian and vehicles) the Contractor shall submit proposals for dealing with such situations to the Overseeing Organisation for acceptance. Compliance with this Clause shall not relieve the Contractor of any of his other obligations and liabilities under the Contract and under the relevant provisions of any legislation applicable to the highway network.

3. The Contractor must make sure that roadworks and his employees are safe and that drivers and pedestrians are informed well in advance about the size and nature of any obstructions. He will be required to pay particular attention to the needs of people with disabilities, children, the elderly and people with prams.

The Contractor shall at all times follow the principles outlined in "Safety at Street Works and Road Works", the Code of Practice published by The Stationery Office, and any future amendments or replacements thereof.

The Contractor’s agent or supervisor will be required to keep one copy of Chapter 8 of the Traffic Signs Manual with him at all times. In addition the Contractor will be required to keep at least one copy of the Code of Practice on each and every site at all times, until the works are completed, to ensure that his supervisors and employees can refer to it as and when required.

4. The Contractor shall not commence any work which affects the public highway until all traffic safety measures necessitated by the work are fully operational.

5. Road danger lamps and high intensity flashing beacons shall comply with BS3143, except that the flashing rate for flashing lamps shall be within the range 120 -150 flashes per minute. The minimum luminous intensity of the lamps shall be 0.5 candela for steady lamps, 1.0 candela for tipple lamps at their peak, and 1.5 candela for flashing lamps at their peak.

6. The Contractor shall submit all requests for permission to utilise temporary traffic signal installations to the Overseeing Organisation by using the “Application Pack for Permission to Place Portable Light Signals on the Highway” endorsed by the National Street Works Highways Group and within the appropriate timescale stated therein. A copy of this document is included.
WORKS INFORMATION – Specification

in the tender document. All temporary traffic signals shall comply with the requirements stated in Appendix 12/5.

7. All traffic signs shall be reflectorised, with a Class Ref 1 material or Class Ref 2 material as detailed in BS EN 12899-1:2001, as instructed by the Overseeing Organisation. The Contractor is reminded that Class Ref 2 material complying with the new Standard is the same as Class 1 to BS 873 Part 1.

8. The Contractor must ensure that all his personnel when working on highways are wearing high visibility garments. The minimum requirement on district and principal roads with a speed limit of 30 mph or less is sleeveless jackets to BS 6629 Class B incorporating the recommendations of Appendix G but on all other roads with a speed limit in excess of 30 mph coats or jackets with sleeves to BS6629 Class A incorporating the recommendations of Appendix G or better shall be worn. He will also be required to ensure that workmen are wearing proper and correct protective clothing etc. for the type of works he/she is undertaking e.g. ear defenders must be worn where pneumatic hammers are being used for breaking the road, safety helmets must be worn when working near planing machines incorporating an elevator for loading planed off material directly into transport lorries.

Any person not complying with the provisions of this clause will be removed from site, if he/she refuses to conform to any directives.

9. All vehicles which are used in connection with the highways works shall, unless specified elsewhere in this contract or agreed with the Overseeing Organisation, be equipped with at least one functioning revolving or flashing amber beacon whilst operating within the specified working area.

10. Unless otherwise agreed by the Overseeing Organisation, the following minimum carriageway widths shall be maintained:-

Two way traffic - 5.5 metres
One way traffic - 3.0 metres (2.5 metres for minor roads)

The widths are subject to increase where necessary at curves and junctions as may be directed by the Overseeing Organisation.

11. Requirements for pedestrians are stated in Chapter 8 of the Traffic Signs Manual, including making provision for blind persons. Temporary footways should be 1.5m wide where possible and never less than 1.0m wide. Road works signs (Diagram 564) and keep Left/Right signs (Diagram 610) shall not be used in conjunction with signing for footways works.

12. Temporary cones and cylinders shall comply with Designation 1 of BS 873: Part 8. Temporary cones shall be 1000mm high in tapers and 750mm high in longitudinal coning. Temporary cylinders shall be 1000mm high.
WORKS INFORMATION – Specification

13. Temporary stop lines, normally 200mm wide, shall be laid and maintained on the approaches to all traffic signal installations affected by the works. A proprietary temporary road marking paint or spray shall be used, and the stop lines shall be in place before the carriageway is opened to traffic after planning or resurfacing works.

14. Normal Permitted Working Hours shall be defined as 07:30 to 18:00 hours on weekdays and 07:30 to 13:00 hours on Saturdays. Sunday and Bank Holiday working shall only be allowed as agreed or instructed by the Overseeing Organisation. Payment rates for works with restricted hours may be enhanced by percentage surcharges tendered in the Price List. Increased rates shall only apply when the Overseeing Organisation has instructed that working hours are restricted. In these cases, the surcharge shall apply to all work carried out during the restricted hours.

15. The Contractor shall submit details of the Temporary Traffic Signals and Manual Traffic Control (STOP/GO) working that he proposes to use for prior acceptance by the Overseeing Organisation. Payment rates for particular traffic management arrangements are included in the tendered Price List, but these rates shall only apply when the Overseeing Organisation has instructed that the arrangements to which they apply.

16. Traffic Orders

Traffic Orders are required when a length of carriageway or hardshoulder is closed to traffic or when contraflow is necessary. The Overseeing Organisation will arrange all Traffic Orders and the notice required by him for making or amending such Orders is 12 weeks. If the contractor requires to carryout any remedial or other work at his own expense, he shall give this notice and allow for the Overseeing Organisation arranging the Traffic Order.

17. Events that could have a bearing on the Works.

Unless otherwise accepted by the Overseeing Organisation, no traffic management measures will be allowed on the network: -

(i) From 12 noon on the Thursday prior to a Bank Holiday Monday to 12 noon on the Tuesday following.

(ii) On any other Bank Holiday together with the day before and the day after.


Erection and Removal of Traffic Management.
WORKS INFORMATION – Specification

(i) Due to the nature of the Network and variable traffic flows restricted hours of work, if applicable, will be indicated on each Works Order.

(ii) Carriageway possession hours include the time needed for installing and removing the traffic management and site working hours.

(iii) Traffic management shall not be installed or removed during the hours of 0730 – 0930 and 1500 – 1830 as appropriate, unless otherwise directed by the Overseeing Organisation or Police.


Details of the annual Average Daily traffic flows on various section of the Network are available from London Borough of Barnet on 020 8359 4377 – Mr Phil Smith.

20. Driver/Pedestrian Information Signs

The Contractor shall display at least two driver/pedestrian information signs (Diagram No.7008) at each job or works locality. The Contractor shall include for these signs in his rates. If more than two signs are required, then these extra signs will be paid for in accordance with items in the Schedule of Rates.
WORKS INFORMATION – Specification

APPENDIX 1/18: TEMPORARY DIVERSIONS OF TRAFFIC

Temporary Diversions of Traffic Specified by the Overseeing Organisation

Where necessary, details of the temporary diversions of traffic and the requirements of the Overseeing Organisation will be provided with the order for the execution of works at the particular site affected or at an appropriate time prior to commencement of works.

The Contractor shall not close any part of any street or public way, or occupy any land for materials, without first obtaining the permission of the Overseeing Organisation, and shall not continue to keep closed such portion of any street or public way or continue to occupy such land beyond the time for which such permission has been given. Closure of roads may be affected to suit the Contractor’s program subject to a minimum of eight weeks’ notice to the Overseeing Organisation.

The Contractor shall ensure that, access for residents and (where possible) service vehicles is maintained, throughout the duration of his works.

The Contractor will be required to carry out signing etc on all highways, for temporary road closures and temporary diversions for traffic in accordance with Works Orders issued by the Overseeing Organisation.

The Contractor is reminded that payment for the signing temporary diversions of traffic shall be for the individual signs that the Overseeing Organisation has instructed the Contractor to erect, in accordance with the Method of Measurement.
WORKS INFORMATION – Specification

APPENDIX 1/21: INFORMATION BOARDS

1 The Contractor shall erect Information Boards, at appropriate locations, when their provision is included in the instructing Package Order or is subsequently instructed by the Overseeing Organisation. The boards shall display the London Borough of Barnet's name and logo where applicable as shown on Standard Detail No. ST1/10A.
WORKS INFORMATION – Specification

(i)  APPENDIX 2/1: GENERAL SITE CLEARANCE

The specific requirements for general site clearance shall be as stated in the instructing Package Order. Such work may, typically, include:

(i)  the specific requirements for, and extent of, site clearance works;

(ii) any particular precautions to be taken during site clearance;

(iii) requirements for the filling of any voids;

(iv) treatment of any adjoining properties, walls, hedges, fences, and the like;

(v)  identification of any known hazardous materials, cross-referenced to Appendix 2/5 and the Health and Safety Plan.
WORKS INFORMATION – Specification

APPENDIX 2/2 FILLING OF TRENCHES AND PIPES

1 The Overseeing Organisation may amend the requirements of sub-Clause 201.4 in any Package Order. Such requirements may include:

- backfilling of trenches in accordance with any requirements stated in Appendix 5/1;
- the removal of pipes, services, road lighting cables, etc, that are in excess of 1m below formation, including excavation and subsequent backfilling of trenches in accordance with the requirements of Clause 505 or as otherwise stated in the instructing Package Order;
- the grouting of pipes or service ducts that are in excess of 1m below formation with a mixture of cement and pulverised fuel ash in accordance with the requirements of Clause 506 or as otherwise stated in the instructing Package Order;
- the protection of pipes, services, etc, as stated in the instructing Package Order, that are within 1m of formation;
- the removal of road lighting cables, etc, in accordance with the requirements of sub-Clause 1421.17, or as otherwise stated in the instructing Package Order.

2 If the Contractor allows material, which on excavation is suitable for reuse, to become unsuitable and it is in this condition where required for backfilling, he shall make good by running it to spoil and replacing with other suitable material to Clause 803, 804 or 1030.

3 Where the ground surface in the line of the trench consists of topsoil and the backfill is required to be brought up to ground level, the final layer shall be topsoil of the same thickness as previously.

4 Refilling of trenches shall not commence until the concrete surrounding the ducts or other works therein has hardened sufficiently to prevent it being damaged and until the works in the trench have been accepted by the Overseeing Organisation.

5 Backfilling material shall be deposited in layers not exceeding 150mm in thickness, each layer being separately and thoroughly compacted using power hammers or vibrating plate compactors. Each layer shall be accepted by the Overseeing Organisation before the next layer is placed.
WORKS INFORMATION – Specification

APPENDIX 2/3: RETENTION OF MATERIAL ARISING FROM SITE CLEARANCE

1. The Contractor shall comply with the specific instructions for the retention of materials arising from site clearance as stated in the instructing Package Order or as instructed by the Overseeing Organisation.

2. Materials that are instructed to be retained during site clearance operations shall remain in the ownership of the Employer and shall not to be re-used or disposed of without the permission of the Overseeing Organisation.

3. The Contractor shall maintain a current list of retained materials kept at his depot, which shall be available for inspection by the Overseeing Organisation at any time and be submitted at monthly intervals.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LOCATION</th>
<th>DELIVERED TO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite kerbs, channels, edgings, quadrants, block paving, flagstones, setts, blocks, bricks, tactile and other types of paving, inspection or service covers of any kind, gully gratings, bollards, guardrails, signs and posts, seats, bins and other street furniture, etc for re-use in works.</td>
<td>As instructed</td>
<td>To be stored on site/or at the Contractor’s depot as instructed</td>
<td>For reusable flags see Clause 1107SR</td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

APPENDIX 2/5: HAZARDOUS MATERIALS

1 The Overseeing Organisation will include, with the Contract Data Part One information for each Package Order, any information that he has with regard to any hazardous materials that are known to exist on any part of the Site. It is, however, not possible to itemise the individual chemical hazards which the Contractor could potentially encounter and, in every case, the responsibility for identifying the substances will rest with the Police, Fire Service or Local Authority Waste Disposal Officer.

2 The Contractor shall notify the Overseeing Organisation immediately upon the discovery of any substances that he considers to be hazardous to the health and safety of any of his staff, or member of the public. The Overseeing Organisation will then contact the emergency services and will, under their guidance, issue instructions to the Contractor as to how he is to handle such materials.

3 The Police and the Fire Service have the primary role when dealing with emergencies involving spillages or leakage of hazardous materials on to the highway. The Contractor shall provide assistance and materials for containment of any spillage and shall remove any substances which have been rendered safe.
WORKS INFORMATION – Specification

APPENDIX 3/1: FENCES AND GATES

1 The Overseeing Organisation anticipates that different types of permanent fencing, as shown on the HCD Drawing Numbers H2, H11, H13, H14 and H15 will be required in Package Orders issued under this contract. The particular type required shall be as stated on the instructing Package Order.

2 Each instructing Package Order shall also state any requirements for:

- timber that are different from those stated in sub-Clause 304.2;
- bolts, screws and nuts that are different from those stated in sub-Clause 305.1;
- joining permanent fencing to existing hedges, fences and other structures that are different from those stated in sub-Clause 306.1;
- concrete surround to bases of posts, as shown in HCD Drawing Number H15;
- different coloured plastic coatings to high tensile wire.

3 The Overseeing Organisation may vary the requirements for preservation treatment, coloured wood staining or painting in any Package Order.

4 The requirements for taking fencing from store and re-erecting fencing shall be as stated in the instructing Package Order.

5 The requirements for excavating in Hard Material for fencing shall be as stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 4/1: ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)

1 The location, extent, Class and other requirements for pedestrian guardrail shall be as stated in the instructing Package Order and shall be one of the following:

<table>
<thead>
<tr>
<th>Type</th>
<th>Standard Detail No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>SD/402A</td>
</tr>
<tr>
<td>Type 2</td>
<td>SD/404A</td>
</tr>
<tr>
<td>Type 3</td>
<td>SD/413A</td>
</tr>
<tr>
<td>Type 4</td>
<td>SD/423A</td>
</tr>
<tr>
<td>Type 5</td>
<td>SD/425A</td>
</tr>
</tbody>
</table>

2 Work may include the taking down of parts or sections of existing pedestrian guardrail and the erection in their place of new parts or sections of pedestrian guardrail.

3 When instructed by the Overseeing Organisation, pedestrian guardrails shall be painted. The colour of the finishing coat shall be as instructed.

4 The Contractor shall assume that the majority of pedestrian guardrail installation and replacement shall require hand excavation in hard material and concrete foundations.

PARAPET REPAIRS

General

5 Prior to any works to replace or repair existing parapets, adequate protective measures including lighting and control of ambient conditions to progress the works shall be installed in accordance with the Construction Phase Health and Safety Plan. A mobile “shield” which does not protrude below the soffit of the bridge and is fitted with adequate kentledge for stability may be used over live carriageways subject to the agreement of the Overseeing Organisation and the Police. The protective measures shall prevent ‘Weld Flash’.

6 The Overseeing Organisation will order the individual structures and parts of parapets which are to be replaced or repaired.

Metal Parapets

Replacement of Mesh

7 Existing mesh shall be removed by unbolting or drilling out existing fixings. Existing
WORKS INFORMATION – Specification

undamaged cover strips shall be retained. The new mesh shall be fixed using stainless steel self tapping screws at existing fixing points in the rails. All new mesh shall be stainless steel or galvanised as instructed, with a mesh grid of 50mm and a minimum gauge of 6 S.W.G.

Welded Repairs

8 Damaged sections or elements of parapets shall be replaced with sections of equivalent properties which shall be welded in situ with full strength butt welds. All structural steel replacement sections shall be galvanised prior to erection. All welded repairs shall be carried out to comply with the requirements of Clause 2204 for Workmanship, Inspection and Testing.

Replacement of Existing Expanding Type Anchors

9 Existing expanding type anchors which are to be replaced shall be removed by diamond core drilling to a diameter of 48mm and a minimum depth of 250mm. The sides of the cored hole shall be roughened or ground and then thoroughly cleaned of all debris.

10 The replacement anchor shall be a resin anchored stainless steel socket having Department type Registration but the resin used shall have a suitably large filler to take account of the additional gap to be filled and limit the potential for creep.
APPENDIX 5/1: DRAINAGE REQUIREMENTS

1. Drainage works will normally entail the laying of drains, sewers, gully connections and ducts for traffic signal cables and street lighting cables and the construction of a range of chambers, catchpits and the like.

2. In the case of chambers, catchpits and the like, the permitted covers and frames are to be ductile iron as follows:

   BS EN124: Loading Class D400 heavy duty, double triangular, 675x675mm or 600x600mm clear opening, 150mm deep.

   BS EN124 Class D400 Stanton plc ‘Challenger’ Grade A heavy duty, single piece, 620x610mm clear opening, 150mm deep, badged with Thames Water logo.

   BS EN124 Class C250 Medium duty, double triangular or single piece, 600x600mm or 600x450, clear opening.

   BS EN124 Class A15 Light, single piece, 600x450 clear opening, 50mm deep.

3. In the case of gullies the permitted gratings and frames are to be ductile iron as follows:-

   BS EN124 Class D400 Heavy duty, double triangular, various clear openings.

   BS EN124 Class C250 Medium duty kerb hinged grating.

   BS EN124 Class D400 Kerb gully cover, hinged lid, Glynwed Aquakerb 6100A half battered or alternative.

4. All frames (chambers and gullies) in the carriageway, shall be bedded on a proprietary quick setting mortar.

5. The backfilling of all excavations for drainage works shall be shown on the Drawings.

6. Precast and Insitu cast gullies shall comply with HCD Drawing Number F13 and shall be constructed to a depth of 900mm, 1070mm, 1200mm or 1500mm as stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 5/2: SERVICE DUCT REQUIREMENTS

1. All ducting shall be of the type as instructed. The backfilling of all excavations for service duct works shall be as shown on the Drawings.

2. Ducts shall be thick walled low or medium density smooth bore polythene. Wall thickness shall not be less than 5mm \( \geq 0.1 \) mm. Orange ducts shall have the words “Traffic Signals” or “Street Lighting”, as appropriate, printed in white lettering 9mm high, along the length at intervals not exceeding 1.0m. When laid, the wording shall be uppermost. All joints shall be made to give a smooth bore.

3. All ducts shall be impact resistant, impervious to water, capable of being laid at temperatures down to –10°C, and sufficiently flexible to follow undulations in trench bottom, and not requiring concrete surround.

4. The permanent reinstatement of service duct trenches shall be to match the existing surface and will be by type as detailed in appendix 7/2.

5. Temporary reinstatement of service duct trenches may be necessary depending on the Contractor’s programme. If the Contractor wishes to complete sections of work before permanently reinstating the surface, he shall allow for the provision of temporary reinstatements in order that the carriageway is cleared of traffic management prior to the expiration of the working times agreed with the Overseeing Organisation.
WORKS INFORMATION – Specification

APPENDIX 5/6: LINEAR DRAINAGE CHANNEL SYSTEMS

1 The requirements for the installation of any Linear Drainage Channel System to be undertaken as part of any Programmed Project shall be as stated in the instructing Package Order.

2 Linear drainage channel system shall be “ACO Type K100 with lockable Class F Heelguard Heavy Duty Cover”, incorporating sump units with a 30l/s discharge rate and “ACO Universal Gully Unit”, 400m x 400mm x 650mm deep, or equivalents.

3 Details of “ACO” Products are available from:

ACO Technologies Plc
ACO Business Park,
Hitchin Road,
Shefford,
Bedfordshire
SG17 5TE

Tel. 01462 816666
www.aco.co.uk
WORKS INFORMATION – Specification

APPENDIX 5/5: COMBINED DRAINAGE AND KERB SYSTEMS

1 The requirements for the installation of any Combined Drainage and Kerb System shall be as stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 6/1: REQUIREMENTS FOR ACCEPTABILITY AND TESTING ETC. OF EARTHWORKS MATERIALS

1 Acceptable material shall only be that stated as such in any Package Order, or as instructed on site by the Overseeing Organisation.

2 Any special requirements for the acceptability of any proposed fill material shall be as instructed by the Overseeing Organisation.

3 Information regarding materials that might be classified as Class 3 will be included in the instructing Package Order.

4 The Contractor is encouraged to submit proposals, for processing to render unacceptable material Class U1 that is encountered acceptable, and if his proposals are acceptable to the Overseeing Organisation, this will be confirmed to the Contractor in writing.

5 Any requirements for groundwater lowering, or other treatments, shall be as stated in any Package Order, or as instructed on site by the Overseeing Organisation.

6 The minimum MCV required immediately before compaction, for any lime stabilised Class 9D material to be used in any site, shall be as instructed by the Overseeing Organisation.

7 The requirements for acceptability and testing of un-burnt colliery shale shall be as instructed by the Overseeing Organisation if the need arises.

8 The rapid assessment procedure for material acceptability shall not be used unless exceptionally permitted by the Overseeing Organisation.

9 The Contractor may remove acceptable material or unacceptable material from any part of any Site that is surplus to the requirements of the work that has generated it provided that the Contractor warrants that it is to be used for a recycling process that has been approved by the Overseeing Organisation.

10 The effects of water-soluble sulfate, oxidisable sulfides and total potential sulfate shall only be assessed upon the exceptional request of the Overseeing Organisation. Such assessments, if required, are likely to be undertaken by Others; engaged by the Employer under separate arrangements.

11 Magnesium sulfate tests, and other tests for particle soundness, shall only be undertaken upon the exceptional request of the Overseeing Organisation. Such tests, if required, are likely to be undertaken by Others; engaged by the Employer under separate arrangements.
WORKS INFORMATION – Specification

APPENDIX 6/2: REQUIREMENTS FOR DEALING WITH CLASS U2 UNACCEPTABLE MATERIAL

1 The Contractor will be made aware of the location, extent and nature of any Class U2 material that the Overseeing Organisation believes to be present on any site in the instructing Package Order.

2 As it is considered unlikely that the Contractor will encounter Class U2 material while carrying out the Works, no requirements for the handling and disposal of Class U2 material have been agreed with the Employer’s Environmental Health Department.

3 The Contractor shall, in the event of uncovering any Class U2 material while carrying out the Works, immediately notify the Overseeing Organisation and shall subsequently comply with all requirements for the handling and disposal of such materials, issued by the Employer’s Environmental Health Department, and confirmed to the Contractor by the Overseeing Organisation.

4 The Contractor shall comply with all special requirements for dealing with any leachate or contaminated water that may arise while carrying out the Works. Any such requirements will be issued by the Employer’s Environmental Health Department and confirmed to the Contractor by the Overseeing Organisation.

5 The Contractor shall comply with all special requirements that may arise while carrying out the Works for drainage and for sealing the exposed surfaces of any contaminated materials. Any such requirements will be issued by the Employer’s Environmental Health Department, and confirmed to the Contractor by the Overseeing Organisation.
WORKS INFORMATION – Specification

APPENDIX 6/3: REQUIREMENTS FOR EXCAVATION, DEPOSITION, COMPACTION (OTHER THAN DYNAMIC COMPACTION)

1 The requirements for any earthworks operations to be undertaken as part of the Works shall be as stated in the instructing Package Order.

2 The requirements for geotextile to be used in the Works shall be as stated in the instructing Package Order.

3 The requirements for the removal of abandoned services, backfilling of cellars and the like to be undertaken as part of the Works shall be as stated in the instructing Package Order.
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APPENDIX 6/7: SUB-FORMATION & CAPPING & PREPARATION & SURFACE TREATMENT OF FORMATION

1 The preparation of formation on existing subbase in carriageways, footways and other paved areas, as stated in the instructing Package Order, shall comply with the requirements for surface levels and regularity stated in Clause 702, and the requirements for compaction stated in Clause 802.
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APPENDIX 6/8: TOPSOILING, GRASS SEEDING & TURFING

1 Any areas of the Works that are to be designated as areas of Class 5A material shall be identified as such in the instructing Package Order.

2 The Contractor shall ensure that all areas of topsoil, grassed areas and verges on the Site are left undisturbed, except where such disturbance forms an essential part of the Works. Any requirements for the removal and/or reuse of indigenous topsoil (including its use as turf) shall be as stated in the instructing Package Order.

3 The depth of any topsoil stripping shall be as stated in the instructing Package Order.

4 Topsoil stockpiles shall not exceed a height of 2m.

5 Topsoil shall not be stockpiled on any part of the Site for longer than the duration of the Works, as agreed with the Overseeing Organisation.

6 The Contractor shall remove any surplus topsoil from any part of the Site and store it at his depot for re-use for other work in this contract, up to a maximum storage of 25 tonnes. Topsoil stockpiled at the Contractor’s depot may be stockpiled for the duration of this contract, or other period of time as instructed by the Overseeing Organisation.

7 Any requirements for covering slopes of Classes 2E and 7B fill shall be as stated in the instructing Package Order.

8 The use of imported topsoil, Class B, shall only be permitted or requested in the instructing Package Order.

9 The requirements for topsoil treatment, in areas to be turfed, shall be as stated in the instructing Package Order.

10 All topsoil shall have stones and other debris removed which have dimensions greater than 25mm equivalent diameter which lie within 100mm of the surface.

11 Topsoil shall be deposited and spread on the areas indicated in the instructing Package Order, to the thicknesses stated therein, in layers not exceeding 150mm. Each layer shall be firmed before spreading the next. The thickness shall be reduced where necessary to allow for any subsequent turfing required in the instructing Package Order. The use of tracked vehicles for laying shall not be permitted.
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Appendix 7/1: Pavement Materials

Schedule 1: Permitted Pavement Options

The permitted pavement options for each Work Package shall be as stated in the instructing Package Order, in a format similar to that shown in Schedule 1, below:

<table>
<thead>
<tr>
<th>Drawing Ref</th>
<th>Section</th>
<th>General Requirements</th>
<th>Permitted Pavement Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Schedule 2: General Requirements

The General Requirements for each Work Package shall be as stated in Schedule 2, below, unless amended in the instructing Package Order.

<table>
<thead>
<tr>
<th>Grid for checking surface levels of pavement courses</th>
<th>Machine Lay</th>
<th>Longitudinal dimension</th>
<th>10 metres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hand lay</td>
<td>Transverse dimension</td>
<td>2 metres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Longitudinal dimension</td>
<td>5 metres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transverse dimension</td>
<td>1 metre</td>
</tr>
<tr>
<td>Grid for checking surface levels of pavement courses</td>
<td></td>
<td>Surface regularity: Clause 702.7 Table 7/2</td>
<td>Category of Road</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interval for measurement of longitudinal regularity:</td>
<td>As stated on the instructing Package Order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interval for measurement of transverse regularity:</td>
<td>As stated on the instructing Package Order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surface macrotexture required</td>
<td>1.2mm</td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

Schedule 3: Permitted Construction Materials

The permitted construction materials for each Work Package shall be as stated in the instructing Package Order, in a format similar to that shown in Schedule 3, below:

<table>
<thead>
<tr>
<th>Pavement Layer</th>
<th>Material Ref.</th>
<th>Thickness</th>
<th>Material Ref.</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Course</td>
<td></td>
<td>...... mm</td>
<td></td>
<td>...... mm</td>
</tr>
<tr>
<td>Binder Course</td>
<td></td>
<td>...... mm</td>
<td></td>
<td>...... mm</td>
</tr>
<tr>
<td>Base</td>
<td></td>
<td>...... mm</td>
<td></td>
<td>...... mm</td>
</tr>
<tr>
<td>Sub-base</td>
<td></td>
<td>...... mm</td>
<td></td>
<td>...... mm</td>
</tr>
<tr>
<td>Total Thickness</td>
<td></td>
<td>...... mm</td>
<td></td>
<td>...... mm</td>
</tr>
</tbody>
</table>

SCHEDULE 4: GENERAL REQUIREMENTS FOR CONSTRUCTION MATERIALS

Clause | Requirement
-------|---------------------------------------------------------------
801.2  | The limiting distance for deposition of unbound mixes referred to in sub-Clause 801.2 shall be 500mm unless otherwise stated in the instructing Package Order or otherwise instructed by the Overseeing Organisation.
801.3  | The limiting distance for deposition of unbound mixes referred to in sub-Clause 801.3 shall be 500mm unless otherwise stated in the instructing Package Order.
801.7  | All material shall comply with sub-Clause 801.7 unless otherwise stated in the instructing Package Order.
802.4  | Unbound materials, up to 225mm compacted thickness, shall be spread in one layer unless otherwise stated in the instructing Package Order.
802.14 | The thickness of each compacted layer shall be as stated in the instructing Package Order.
901.2  | The requirements for resistance to fragmentation (hardness), resistance to freezing and thawing (durability) and cleanness of aggregates shall be as stated in sub-Clauses 901.2 and 942.5 unless otherwise stated in the instructing Package Order.
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901.19 The requirements for determination of compaction level of base and binder course macadams shall be as stated in Clause 929 unless otherwise stated in the instructing Package Order.

901.28 All temporary running surfaces that are opened to traffic for more than 4 hours shall have a minimum PSV of 55.

Schedule 5: Requirements for Construction Materials

<table>
<thead>
<tr>
<th>Subbase</th>
<th>Ref.</th>
<th>Clause</th>
<th>Description</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB1</td>
<td>803</td>
<td></td>
<td>Type 1 unbound mixture</td>
<td>Mixtures containing crushed gravel coarse aggregate shall not be permitted on roads carrying a traffic loading of more than 2msa unless the sub-base strength is at least 30% CBR. Mixtures containing crushed gravel coarse aggregate shall comply with the minimum CBR requirement in sub-Clause 801.6 unless otherwise stated in the instructing Package Order. Mixtures containing crushed gravel coarse aggregate shall not be assessed using a trafficking trial unless otherwise stated in the instructing Package Order.</td>
</tr>
<tr>
<td>SB2</td>
<td>804</td>
<td></td>
<td>Type 2 unbound mixture</td>
<td>Mixtures containing crushed gravel coarse aggregate shall comply with the minimum CBR requirement in sub-Clause 801.6 unless otherwise stated in the instructing Package Order.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base</th>
<th>Ref.</th>
<th>Clause</th>
<th>Description</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>903</td>
<td></td>
<td>Dense Macadam Base</td>
<td>Recipe Mix Sub-Clauses 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS 4987-1 Clause 5.2 Binder penetration: 100/150 pen</td>
</tr>
<tr>
<td>B2</td>
<td>904</td>
<td></td>
<td>Rolled Asphalt Base</td>
<td>Sub-Clauses 945.4 shall apply unless otherwise stated in the instructing Package Order BS 594-1: Table 2, Column 2/5 Binder penetration: 40/60 pen</td>
</tr>
</tbody>
</table>
## WORKS INFORMATION – Specification

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B3</td>
<td>931</td>
<td>Recipe Mixtures: Heavy Base and Binder Course Macadams</td>
<td>HDM50 Base Course BS 4987-1 clause 5.2 0/32mm size material</td>
</tr>
</tbody>
</table>

### Binder Course

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1</td>
<td>905</td>
<td>Rolled Asphalt Binder</td>
<td>Sub-Claus 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS594-1: Table 2, Column 2/1 Bitumen grade: 70/100 pen</td>
</tr>
<tr>
<td>BC2</td>
<td>905</td>
<td>Rolled Asphalt Binder Coarse</td>
<td>Sub-Claus 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS594-1: Table 2, Column 2/2 Bitumen grade: 70/100 pen</td>
</tr>
<tr>
<td>BC3</td>
<td>905</td>
<td>Rolled Asphalt Binder Coarse</td>
<td>Sub-Claus 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS594-1: Table 2, Column 2/3 Bitumen grade: 70/100 pen</td>
</tr>
<tr>
<td>BC4</td>
<td>906</td>
<td>Recipe Mixtures: Dense Base and Binder Course Macadams with Paving Grade Bitumen</td>
<td>DBM50 Binder Course Grading range: 0/32mm Sub-Claus 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS 4987-1 Clause 6.5</td>
</tr>
<tr>
<td>BC5</td>
<td>906</td>
<td>Recipe Mixtures: Dense Base and Binder Course Macadams with Paving Grade Bitumen</td>
<td>DBM50 Binder Course Grading range: 0/20mm Sub-Claus 945.1 and 945.2 shall apply, unless otherwise stated in the instructing Package Order BS 4987-1 Clause 6.5</td>
</tr>
<tr>
<td>BC6</td>
<td>974AR</td>
<td>Open Graded Binder Course Macadam ONLY FOR USE ON CATEGORY B ROADS</td>
<td>BS 4987-1 clause 6.1 Grading range: 0/20mm Bitumen grade: 160/220 pen</td>
</tr>
</tbody>
</table>
### Regulating Course

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Clause</th>
<th>Description</th>
<th>Particular Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Any of the materials listed in this Appendix may be used as regulating course as stated in the instructing Package Order.</td>
</tr>
</tbody>
</table>

### Surface Course

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Clause</th>
<th>Description</th>
<th>Particular Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>911</td>
<td>Rolled Asphalt Surface Course</td>
<td>BS594-1 Table 3&lt;br&gt;Designation: 30% 0/14&lt;br&gt;Bitumen grade: 40/60 pen&lt;br&gt;Minimum PSV: 65&lt;br&gt;Maximum AAV: 12&lt;br&gt;Marshall stability and Marshall flow: as stated on the instructing Package Order&lt;br&gt;Coated chipping size: 20 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Design Mix)</td>
<td></td>
</tr>
<tr>
<td>SC2</td>
<td>910</td>
<td>Rolled Asphalt Surface Course</td>
<td>BS594-1 Table 6&lt;br&gt;Designation: 35% 0/14&lt;br&gt;Bitumen grade: 40/60 pen&lt;br&gt;Minimum PSV: 65&lt;br&gt;Maximum AAV: 12&lt;br&gt;Marshall stability and Marshall flow: as stated on the instructing Package Order&lt;br&gt;Coated chipping size: 20 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Recipe Mix)</td>
<td></td>
</tr>
<tr>
<td>SC3</td>
<td>942</td>
<td>Thin Surface Course Type C</td>
<td>Traffic count: Sites carrying less than 250 cvd&lt;br&gt;Stress level: 2&lt;br&gt;Minimum PSV: 65&lt;br&gt;Maximum AAV: 12&lt;br&gt;Nominal aggregate size: 14mm&lt;br&gt;Minimum wheel tracking level required on HAPAS Certificate: Level 2&lt;br&gt;Macrotexture depth: 1.2mm&lt;br&gt;Guarantee period: 2 years&lt;br&gt;Road/tyre noise level: 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(&gt;25mm to ≤50mm)</td>
<td></td>
</tr>
<tr>
<td>SC4</td>
<td>942</td>
<td>Thin Surface Course Type C</td>
<td>Traffic count: Sites carrying 251 – 500 cvd&lt;br&gt;Stress level: 2&lt;br&gt;Minimum PSV: 65&lt;br&gt;Maximum AAV: 12&lt;br&gt;Nominal aggregate size: 14mm&lt;br&gt;Minimum wheel tracking level required on HAPAS Certificate: Level 2&lt;br&gt;Macrotexture depth: 1.2mm&lt;br&gt;Guarantee period: 2 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(&gt;25mm to ≤50mm)</td>
<td></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Ref.</th>
<th>Traffic count: Sites carrying 501 – 1500 cvd</th>
<th>Stress level:</th>
<th>Minimum PSV:</th>
<th>Maximum AAV:</th>
<th>Nominal aggregate size:</th>
<th>Minimum wheel tracking level required on HAPAS Certificate: Level 2</th>
<th>Macrotexture depth:</th>
<th>Guarantee period: 2 years</th>
<th>Road/tyre noise level:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC5</td>
<td>Thin Surface Course Type C (&gt;25mm to ≤50mm)</td>
<td>Traffic count: Sites carrying 501 – 1500 cvd</td>
<td>Stress level: 2</td>
<td>Minimum PSV: 65</td>
<td>Maximum AAV: 12</td>
<td>Nominal aggregate size: 14mm</td>
<td>Minimum wheel tracking level required on HAPAS Certificate: Level 2</td>
<td>Macrotexture depth: 1.2mm</td>
<td>Guarantee period: 2 years</td>
</tr>
<tr>
<td>SC6</td>
<td>Thin Surface Course Type C (High Friction) (&gt;25mm to ≤50mm)</td>
<td>Traffic count: Sites carrying 501 – 1500 cvd</td>
<td>Stress level: 2</td>
<td>Minimum PSV: 68+</td>
<td>Maximum AAV: 12</td>
<td>Nominal aggregate size: 14mm</td>
<td>Minimum wheel tracking level required on HAPAS Certificate: Level 2</td>
<td>Macrotexture depth: 1.2mm</td>
<td>Guarantee period: 2 years</td>
</tr>
<tr>
<td>SC7</td>
<td>Close Graded Macadam Surface Course</td>
<td>BS 4987-1 Clause 7.4</td>
<td>Grading range: 0/10mm</td>
<td>Minimum PSV: 60</td>
<td>Maximum AAV: 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC8</td>
<td>Close Graded Macadam Surface Course</td>
<td>BS 4987-1 Clause 7.4</td>
<td>Grading range: 0/14mm</td>
<td>Minimum PSV: 60</td>
<td>Maximum AAV: 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC9</td>
<td>Dense Macadam Surface Course</td>
<td>BS 4987-1 Clause 7.6</td>
<td>Traffic Category: B</td>
<td>Minimum PSV: 60</td>
<td>Maximum AAV: 14</td>
<td>Binder: 160/220 or 250/330</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Surface Treatments

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Clause</th>
<th>Description</th>
<th>Particular Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST1</td>
<td>924</td>
<td>HFS Type 1 (Hot Applied) Natural colour</td>
<td>Minimum PSV: 70+ Certification required to demonstrate the system has a current HAPAS certificate</td>
</tr>
<tr>
<td>ST2</td>
<td>924</td>
<td>HFS Type 1 (Cold Applied) Natural colour</td>
<td>Minimum PSV: 70+ Certification required to demonstrate the system has a current HAPAS certificate</td>
</tr>
<tr>
<td>ST3</td>
<td>924</td>
<td>HFS Type 1 (Cold Applied) “Deep Chrome Green”</td>
<td>Minimum PSV: 70+ Certification required to demonstrate the system has a current HAPAS certificate</td>
</tr>
</tbody>
</table>
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| ST4 Bus Lanes | colour 267 to BS 381C | HFS Type 1 (Hot Applied) “Bold Red” colour 564 to BS 381C | Minimum PSV: 70+ Certification required to demonstrate the system has a current HAPAS certificate |

The Contractor shall, upon request, submit details of colouring agents used in coloured binders.

The coarse aggregate shall be:

Crushed rock of one or more of the following groups specified in BS 594 or BS4987.

- Granite
- Balast
- Gabbro
- Porphyry
- Quartzite
- Hornfels
- Gritstone; or
- Blast Furnace Slag to comply with BS EN 12620:2002.

Coated Chippings for Application to pre-mixed surfacings shall be from one of the following only:

<table>
<thead>
<tr>
<th>Quarry or Works</th>
<th>Locations</th>
<th>Trade Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayston Hill</td>
<td>Shrewsbury</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Gilfach</td>
<td>Neath</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Gelli</td>
<td>Geilligaer</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Craig-Yr-Hesq</td>
<td>Pontypridd</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Minnfordd</td>
<td>Penrhyndeudrath</td>
<td>Basalt</td>
</tr>
<tr>
<td>Dry Rigg</td>
<td>Horton-in-Ribblesdale</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Triscombe</td>
<td>Bagborough</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Cromhall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartzite</td>
<td>Wickwar</td>
<td>quartzite</td>
</tr>
<tr>
<td>Judkins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuttle Hill</td>
<td>Nuneaton</td>
<td>quartzite</td>
</tr>
<tr>
<td>Gore</td>
<td>Walton nr Presteign</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Bray Valley</td>
<td>Brayford</td>
<td>quartzite</td>
</tr>
<tr>
<td>Arcow</td>
<td>Foredale</td>
<td></td>
</tr>
<tr>
<td>Moon’s Hall</td>
<td>Horton in Ribblesdale</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Sandstone</td>
<td>St Michael</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Threlkeld</td>
<td>Threlkeld</td>
<td>Porphyry</td>
</tr>
<tr>
<td>Blodwell</td>
<td>Lynclys nr Oswestry</td>
<td>Basalt</td>
</tr>
<tr>
<td>Ingleton</td>
<td>Ingleton</td>
<td>Gritstone</td>
</tr>
</tbody>
</table>
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<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hatford</td>
<td>Gwent</td>
<td>Gritstone</td>
</tr>
<tr>
<td>White Mountain</td>
<td>County Down NI</td>
<td>Gritstone</td>
</tr>
<tr>
<td>Nash Rock</td>
<td>Dolyhir</td>
<td>Gritstone</td>
</tr>
</tbody>
</table>

Schedule 6: Thin Surface Course Systems: Information to be Provided by the Contractor

(i) A copy of the British Board of Agrément HAPAS Roads and Bridges Certificate or Certificates for the thin surface course system or systems that are proposed for use in the works, together with a copy of the Quality Plan and Installation Method Statement associated with each Certificate.

(ii) For any Certificate that covers several variants of one thin surface course system, proposed variant or variants of the system to be used in the Works.

(iii) If a proposed thin surface course system is not produced under a Sector Scheme, the proposed component materials to be used in the thin surface course system and their proportions for each proposed system.

(iv) Proposed source or sources of coarse aggregate together with statement of properties including polished stone value, ten per cent fines value, aggregate abrasion value and flakiness index.

Schedule 7: Modified Binder and Mixture Data Requirements

The following data shall be provided to the Overseeing Organisation as required in sub-Clauses 937.9, 938.1, 943.5 and 943.8 in respect of the proposed modified binder and of the proposed mixture as appropriate. This data should not be more than six months old. A table in which the binder data may be recorded is given at the end of this section.

I Binder Samples

Bituminous binders shall be sampled from the delivery according to BS EN 58. For modified blended with the other component materials at the mixer a simulated binder shall be prepared. Such modifiers are generally less intimately mixed with the bitumen and less well dispersed throughout the mixture than when pre-blended. Evidence that the simulated binder offers the same performance as the binder produced when the modifier is added at the mixer shall be provided.

II Penetration

Binder penetration at 25°C (BS 2000), 100g 5secs and at 5°C 200g 60secs, before and after hardening in the Rolling Thin Film Oven Test (RTFOT) in
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accordance with ASTM D 2872 and after RTFOT followed by the BBA HAPAS high pressure ageing test (HiPAT).

III Product Identification Test and Rheological Properties

Results for the binder(s) proposed shall comprise rheological data for each binder in the form of complex shear (stiffness) modulus (G*) and phase angle (δ) determined in accordance with Clause 928 for binder as supplied, after RTFOT and after RTFOT followed by HiPAT.

IV Storage Stability Test

All binders shall be stored strictly in accordance with the manufacturer’s instructions. Binders claimed to remain homogeneous in storage without agitation shall be tested for storage stability in the manner described in Clause 941. The mean of the differences in softening point between the top and bottom samples, of not less than five pairs of such samples shall not exceed 5°C. Manufacturers of pre-blended modified binders shall state what precautions are necessary to ensure that adequate homogeneity is maintained during storage.

V Photomicrograph

A typical photomicrograph of the modified binder and binder using ultra-violet or other technique to provide maximum contrast of the polymer structure to the binder before modification shall be supplied together with details of sample preparation techniques.

VI Cohesion

Vialit Pendulum cohesion test curve of the modified binder, in accordance with Clause 939 for the binder supplied, after RTFOT and after RTFOT followed by HiPAT.

VII FRAASS Brittle Point (IP 80)

FRAASS brittle point measure using BS EN 12593 shall be provided on the binder as supplied, after RTFOT and Aging in accordance with Clause 923.

Summary of Binder Data

<table>
<thead>
<tr>
<th>Manufacturer of binder:</th>
<th>Product name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binder type:</td>
<td>Batch ref:</td>
</tr>
<tr>
<td>Binder source:</td>
<td></td>
</tr>
<tr>
<td>Softening point difference in storage stability test</td>
<td></td>
</tr>
<tr>
<td>Test</td>
<td>Supplied binder</td>
</tr>
<tr>
<td>Penetration at 25°C 0,1mm (100g)</td>
<td></td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

<table>
<thead>
<tr>
<th>and 5 secs)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration at 5°C 0,1mm (200g and 60 secs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vialit pendulum cohesion see Clause 939 maximum peak value J/cm²</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Product identification test Complex shear (stiffness) modulus (G*) and phase angle (α) data. See Clause 928.</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Frass brittle point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other properties the Contractor considers useful</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where indicated with # the Contractor shall attach a graphical output of this schedule.

The following data shall be provided to the Overseeing Organisation as required in sub-Clauses 937.9, 938.1, 943.5 and 943.8 and in respect of the proposed mixture as appropriate.

I Mixing and Compaction Temperatures

Maximum and minimum mixing temperatures shall be stated. Maximum and minimum compaction temperatures and any wind chill factor differing from conventional hot rolled asphalt utilising unmodified bitumen shall be stated.

II Mix Sensitivity Analysis

Wheel-tracking rate for the proposed mixture but with the binder content by mass increased above the target to the maximum binder content anticipated by the Contractor, but not more than + 0.6% above the target.

III Repeated Load Axial Test (RLAT) to DD 226:1996 (for correlation to performance in terms of deformation).

IV Indirect Tensile Fatigue Test (ITFT) - after ageing, see LINK protocol (for correlation to performance in terms of fatigue).

V Saturation Ageing Tensile Stiffness (SATS)
WORKS INFORMATION – Specification

APPENDIX 7/2: EXCAVATION AND REINSTATEMENT OF EXISTING SURFACES

1. Method of Excavation

(i) The method of excavation shall not damage any underlying pavement course or foundation. Any damage caused shall be made good to the satisfaction of the Overseeing Organisation and at the Contractor’s expense.

(ii) The edges of excavations shall be cut vertical and stepped at the interface with successive layers. The steps shall not be less than 100mm.

CARRIAGEWAYS

2. Resurfacing (Machine Laid)

(i) Removal of existing surfacing materials shall be by cold milling (planing) to Clause 917;

(ii) Prior to resurfacing the top surface of the underlying surface shall be thoroughly tack coated and the vertical faces shall be painted with hot bitumen with the same penetration value as the new surfacing.

(iii) The new surfacing material will be stone mastic asphalt (Clause 973AR) rolled asphalt (BS594), coated macadam (BS4987) or thin surface course system (Clause 942SR) as instructed by the Overseeing Organisation.

(iv) Regulating and binder course material may also be required and their extent will be agreed with the Overseeing Organisation prior to the commencement of surfacing works.

3. Patching (Hand Laid)

(i) Removal of existing surfacing materials shall be by breaking out or by cold milling (planing) where the patches are large.

(ii) Joints shall be saw cut where the method of removal of existing surfacing materials is by breaking out.

(iii) Prior to laying surfacing material, the top surface of the underlying bituminous material shall be thoroughly tack coated and the vertical faces shall be painted with hot bitumen with the same penetration value as the new surfacing.
WORKS INFORMATION – Specification

(iv) The new surfacing material will normally be rolled asphalt surface course (BS594) or close graded surface course (BS4987) as instructed by the Overseeing Organisation.

(v) Where existing surfacing breaks out to a depth exceeding 65mm, then binder course or regulating course will be required as instructed by the Overseeing Organisation.

4. Permanent Reinstatements

(i) Permanent reinstatement will be required to the carriageway following drainage/duct work, kerb works etc.

(ii) Excavation will only be necessary if permanent reinstatement is not undertaken at the time of the preceding works and will be of instant repair material. Therefore, the Contractor shall allow for excavation if he programmes the work in this manner.

(iii) The permanent reinstatements may be in surface course material only or may include a binder course as instructed by the Overseeing Organisation.
WORKS INFORMATION – Specification

APPENDIX 7/4: BOND COATS, TACK COATS AND OTHER BITUMINOUS SPRAYS (Sheets 1, 2 AND BINDER DATA SHEET)

1 Locations, site specific limitations, type of treatment required, details of the existing surface and overlay materials and any surface preparation required shall be as stated on the instructing Package Order.

2 Bond coats, tack coats and other bituminous sprays shall not be sprayed onto kerbs, street furniture, or adjacent walls and the like. If necessary such features shall be masked prior to applying bituminous sprays. Where bituminous sprays are accidentally sprayed onto such features they shall be cleaned or replaced.

3 Rate of spread required shall be proposed by the Contractor and as accepted by the Overseeing Organisation.

4 If required, the blinding material to be used shall be proposed by the Contractor and as accepted by the Overseeing Organisation.

5 The following information shall be provided by the Contractor and submitted with the Contractor's Programme:

(i) The product or products he proposes to use together with their data sheets, product identification data, cohesivity data as specified;

(ii) For each product, a copy of the BS EN ISO 9001 certificate showing the name of the manufacturer, the name of the certification body and the reference number and date of the certificate;

(iii) The spraying Equipment proposed, and a test certificate;

(iv) The source or sources of blinding material proposed;

(v) Contingency plans in the event of any breakdown;

(vi) The results of any other tests or other data the Contractor considers would assist the Overseeing Organisation in assessing the technical merit of the treatment such as:

- Tackiness test and/or trafficability time and methods of test;
- Breaking time test results for different weather conditions and substrates;
- Test results for bond to newly laid concrete (e.g. from a BBA/HAPAS certificate if available)
WORKS INFORMATION – Specification

APPENDIX 7/9: COLD MILLING (PLANING) OF BITUMINOUS BOUND FLEXIBLE PAVEMENT

1 All profile planning, constant depth planing and sweeping required shall be carried out in accordance with the particular requirements stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 7/11: OVERBAND AND INLAID CRACK SEALING SYSTEMS

1 Simple overbanding repairs shall be undertaken using the “Permatrack O” system, manufactured by Permanite Asphalt or equivalent carrying a current HAPAS certificate. Further information is available from:

Permanite Asphalt
Cawdor Quarry
Matlock
Derbyshire
DE4 2JH

Tel. 0800 389 9271
www.permanite.com

2 The minimum PSV of the source aggregate for chippings shall be 60 unless otherwise instructed.
WORKS INFORMATION – Specification

APPENDIX 11/1: KERBS, FOOTWAYS AND PAVED AREAS

1. All pre-cast concrete kerbs, channels, edgings and quadrants used for the Works shall comply with the following types and dimensions:

**Pre-cast Concrete Kerbs** (BS Designations are to Table K.1 BS 7263: 2001)

### Bullnose PCC Kerbs

<table>
<thead>
<tr>
<th>Ref.</th>
<th>BS 7263 Designation</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BN</td>
<td>BN</td>
<td>150</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>BN2</td>
<td>-</td>
<td>255</td>
<td>125</td>
<td>914</td>
</tr>
</tbody>
</table>

### Half-battered PCC Kerbs

<table>
<thead>
<tr>
<th>Ref.</th>
<th>BS 7263 Designation</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HB1</td>
<td>HB1</td>
<td>305</td>
<td>150</td>
<td>914</td>
</tr>
<tr>
<td>HB2</td>
<td>HB2</td>
<td>255</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>HB3</td>
<td>HB3</td>
<td>150</td>
<td>125</td>
<td>914</td>
</tr>
</tbody>
</table>

### 45° Splay PCC Kerbs

<table>
<thead>
<tr>
<th>Ref.</th>
<th>BS 7263 Designation</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>SP</td>
<td>255</td>
<td>125</td>
<td>914</td>
</tr>
</tbody>
</table>

### Transition PCC Kerbs

<table>
<thead>
<tr>
<th>Ref.</th>
<th>BS 7263 Designation</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>TL</td>
<td>255</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>TR</td>
<td>TR</td>
<td>255</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>DL1</td>
<td>DL1</td>
<td>255-150</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>DR1</td>
<td>DR1</td>
<td>150-255</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>DL2</td>
<td>DL2</td>
<td>255-150</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>DR2</td>
<td>DR2</td>
<td>150-255</td>
<td>125</td>
<td>914</td>
</tr>
</tbody>
</table>

### “Bus Stop” PCC Kerbing Items

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS1</td>
<td>Bus Stop kerb</td>
<td>380</td>
<td>530</td>
<td>1000</td>
</tr>
<tr>
<td>BB1</td>
<td>K1 to Bus Stop transition</td>
<td>255 up to 380</td>
<td>125</td>
<td>914</td>
</tr>
<tr>
<td>BC1</td>
<td>Bus Stop to C1 transition</td>
<td>380 down to 255</td>
<td>125</td>
<td>914</td>
</tr>
</tbody>
</table>

### “Reconstituted” Type Kerbs

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Full height</td>
<td>255</td>
<td>125</td>
<td>915</td>
</tr>
<tr>
<td>C2-LH</td>
<td>Left-hand taper</td>
<td>255 down to 150</td>
<td>125</td>
<td>915</td>
</tr>
<tr>
<td>C2-RH</td>
<td>Right-hand taper</td>
<td>150 up to 255</td>
<td>125</td>
<td>915</td>
</tr>
<tr>
<td>C3</td>
<td>Dropped</td>
<td>150</td>
<td>125</td>
<td>915</td>
</tr>
</tbody>
</table>
WORKS INFORMATION – Specification

Pre-cast Concrete Channels

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC1</td>
<td>G50</td>
<td>50</td>
<td>100</td>
<td>900</td>
</tr>
<tr>
<td>CC2</td>
<td>G50</td>
<td>75</td>
<td>100</td>
<td>900</td>
</tr>
</tbody>
</table>

Pre-cast Concrete Edgings

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE1</td>
<td>G50</td>
<td>75</td>
<td>25</td>
<td>900</td>
</tr>
<tr>
<td>CE2</td>
<td>G50</td>
<td>100</td>
<td>25</td>
<td>900</td>
</tr>
<tr>
<td>CE3</td>
<td>G50</td>
<td>125</td>
<td>25</td>
<td>900</td>
</tr>
<tr>
<td>CE4</td>
<td>G50</td>
<td>150</td>
<td>50</td>
<td>900</td>
</tr>
</tbody>
</table>

Pre-cast Concrete Quadrants

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QBN1</td>
<td>G50</td>
<td>150</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>QBN2</td>
<td>G50</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>TRIEFQ</td>
<td>Internal Quadrant</td>
<td>150</td>
<td>415</td>
<td>380</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIEFQ</td>
<td>Set of Tapers (GST2A L2 &amp; GST2A L1 HB) or (GST2A R2 &amp; GST2A R1 HB)</td>
<td>415 to 325</td>
<td>380 to 270</td>
<td>914</td>
</tr>
</tbody>
</table>

High Containment Kerbs & Quadrants

High containment kerbs shall be selected from the “Trief”, as manufactured by Brett Landscaping Ltd, or equivalent as stated below:

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Height (mm)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trief1</td>
<td>Standard Trief Unit (GST2A 914)</td>
<td>415</td>
<td>380</td>
<td>914</td>
</tr>
<tr>
<td>Trief2</td>
<td>Set of Tapers (GST2A L2 &amp; GST2A L1 HB) or (GST2A R2 &amp; GST2A R1 HB)</td>
<td>415 to 325</td>
<td>380 to 270</td>
<td>914</td>
</tr>
</tbody>
</table>

Further information regarding Brett Landscaping products are available from:

Brett Landscaping Ltd
Sileby Road
Barrow upon Soar
Loughborough
Leicestershire
LE12 8LX

Tel. 01509 817187
Fax. 01509 817197
www.brett.co.uk/landscaping
WORKS INFORMATION – Specification

3 The size, height, width and length of granite kerbs shall be as stated in the Package Order that instructs their use.

4 All granite kerbs shall be made entirely of natural granite, 'Fair Picked' or as stated in the Package Order that instructs their use.

5 The details of kerb joints shall be 'butt' jointed for concrete, and no greater than 15mm open joint for granite, in which case they shall be pointed with a sand and cement mortar unless stated otherwise in the Package Order that instructs their use.

6 All kerbs shall be bedded and haunched with a minimum of 150mm concrete kerbing unless otherwise stated in the Package Order that instructs their use. Kerb bed reinforcement, detailed on Standard Drawing Number ST/11/01 shall be provided when stated in the instructing Package Order.

7 The requirements for curing concrete for in situ kerbs, channels and edgings shall be as stated in Clause 1027, unless otherwise as stated in the Package Order that instructs their use.

8 All pre-cast concrete flags and granite setts shall comply with the following dimensions and types as stated in the Package Order that instructs their use.

### Pre-cast Concrete Flags

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Thickness (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>G50</td>
<td>300</td>
<td>300</td>
<td>50</td>
</tr>
<tr>
<td>F2</td>
<td>F50</td>
<td>400</td>
<td>400</td>
<td>50</td>
</tr>
<tr>
<td>F3</td>
<td>E50</td>
<td>450</td>
<td>450</td>
<td>50</td>
</tr>
<tr>
<td>F4</td>
<td>A50</td>
<td>450</td>
<td>600</td>
<td>50</td>
</tr>
<tr>
<td>F5</td>
<td>B50</td>
<td>600</td>
<td>600</td>
<td>50</td>
</tr>
<tr>
<td>F6</td>
<td>C50</td>
<td>750</td>
<td>600</td>
<td>50</td>
</tr>
<tr>
<td>F7</td>
<td>D50</td>
<td>900</td>
<td>600</td>
<td>50</td>
</tr>
<tr>
<td>F8</td>
<td>G60</td>
<td>300</td>
<td>300</td>
<td>60</td>
</tr>
<tr>
<td>F9</td>
<td>A63</td>
<td>450</td>
<td>600</td>
<td>63</td>
</tr>
<tr>
<td>F10</td>
<td>B63</td>
<td>600</td>
<td>400</td>
<td>63</td>
</tr>
<tr>
<td>F11</td>
<td>C63</td>
<td>750</td>
<td>600</td>
<td>63</td>
</tr>
<tr>
<td>F12</td>
<td>D63</td>
<td>900</td>
<td>600</td>
<td>63</td>
</tr>
<tr>
<td>F13</td>
<td>E70</td>
<td>450</td>
<td>450</td>
<td>70</td>
</tr>
<tr>
<td>TP1</td>
<td>-</td>
<td>400</td>
<td>400</td>
<td>63</td>
</tr>
<tr>
<td>MOD</td>
<td>TC/F</td>
<td>400</td>
<td>400</td>
<td>65</td>
</tr>
</tbody>
</table>

9 Precast concrete paving flags shall be laid with a 150mm bond.

10 In situ concrete surfaced footways shall have a dimpled or brush finish as instructed by the Overseeing Organisation.
WORKS INFORMATION – Specification

11 Tactile surface paving slabs (TP1) shall be laid at pedestrian crossing points as directed by the Overseeing Organisation. Red coloured slabs shall be used at controlled (e.g. traffic signal, pelican, zebra or toucan) crossings and buff coloured slabs shall be used at uncontrolled crossings.

12 Flexible asphalt footways shall, unless otherwise instructed, be constructed as follows:

   | Surface Course: 6mm DBM Surface Course, 25mm thick |
   | Binder Course: 20mm DBM Binder Course, 60mm thick |
   | Sub-base: Type 1 Subbase Material, 75 – 100mm thick (as instructed) |

13 The Contractor shall assume that most of the excavation carried out for works in Series 1100 will have to be carried out by hand.

14 The Contractor shall notify residents of forthcoming kerbing and footway works, using the sample copy attached to this Appendix.

GRANOLITHIC CONCRETE

15 Granolithic concrete shall be laid monolithic with surrounding materials and shall be gauged of 4 parts of granite to 2 parts of sand and 1 part of cement. The surface of the concrete shall be neatly finished with a granolithic indenting roller and the edges trowelled. The Contractor must allow in his rates for the protection of the surface against vandal or similar damage during the curing period.
CONTRACTOR’S WORKS NOTIFICATION LETTER

SAMPLE COPY

(To be on Contractor’s headed note paper or similar)

Dear Owner/Occupier

HIGHWAY MAINTENANCE PROGRAMME KERB FOOTWAY RELAY AND INCIDENTAL WORKS

Further to the recent letter sent to you by the London Borough of Barnet in respect of the above works, we are the contractors to the Council and have now been instructed to commence the work in your road.

A construction crew will begin works in your road within the next week. During the construction, we will endeavour to keep disruption to a minimum. To complete the project in the shortest possible time, it will be appreciated if you could park your vehicle elsewhere for the duration of these works or move it when requested.

If you have any queries regarding the work or access to your property, please call me on the above office or mobile telephone number.

Thanking you in advance for your co-operation.

Yours sincerely

(Name of Agent/Supervisor)
(Title of Agent/Supervisor)

cc: London Borough of Barnet — Highways Service
WORKS INFORMATION – Specification

APPENDIX 12/1 - TRAFFIC SIGNS: General

1 Any additions/alterations to traffic signs and bollards necessitated by the Works shall be undertaken by the Contractor in conjunction with the London Borough of Barnet and the local electricity supply company or their respective sub-contractors. The Contractor shall allow in his rates for programming his work to suit their requirements. The allowance shall include for preliminary discussions, phasing of work to suit, and any delays that the Contractor may feel will be caused to him as a result of the foregoing. No claim shall be entertained by the Overseeing Organisation, unless it can be shown to be outside the requirements stated above.

2 All traffic sign plates shall be provided by the Contractor.

3 Details of the location identification mark required for each sign will be provided by the Overseeing Organisation.

4 Foundations for permanent traffic signs shall be in accordance with Clause 1203 and Standard Detail SD12/01.

5 The Contractor shall provide one key for every type of lock installed. Additional keys to be provided for every tenth lock installed.

6 Compartments for Electrical Equipment

   (i) All electrical equipment shall be enclosed in a large base housing, minimum dimensions shall be as detailed below. Access to the interior of such compartments shall be by means of a weatherproof door having tamper-resistant key fastenings. The lower edge of the door shall be positioned so that, when the post is installed as intended it is not less than 30mm above ground level. The door opening shall face away from oncoming traffic.

   Diameter 168mm
   Door opening 380mm by 110mm
   Base Board 380mm by 110mm
   Cable entry 100mm by 50mm
   Cable entry depth 150mm
   Planting depth 800mm
   Height 3200mm above ground
   Post shaft Type 1 76mm OD x 3.2mm thick
               Type 2 114mm OD x 3.6mm thick

   The thickness of the base shall be at least 5mm.

   (ii) The internal baseboard shall be manufactured from hardwood or other substantially non hygroscopic and rot resistant material and securely fixed
WORKS INFORMATION – Specification

to the back of the compartment on which the electrical equipment will be mounted. A separate 6mmf8mm earthing diameter brass or stainless steel earthing stud complete with two brass washers and a brass nut and locknut shall be provided on the housing in a suitable and easily accessible position. The distance from the face of the baseboard to the inside of the front of the housing shall be at least 100mm.

(iii) All holes cut in posts to provide a route for internal wiring shall be bushed to prevent chafing of any wiring and suitably protected using “Galavafroid” or alternative.

7 Type and Size of Sign Posts

(i) Tubular steel posts shall be as directed in Clause 1204.

(ii) Each post shall have a base plate having a minimum area of 0.052sq.m.

(iii) All posts and baseplates shall be provided with the additional protection of a bitumen coating both internally and externally below ground level.

(iv) Parallel Sign Posts:

The post shall have the following dimensions:
Type 1 76.1mm OD x 3.2mm Thick
Type 2 114.3mm OD x 3.6mm Thick
Type 3 168.0mm OD x 5.0mm Thick
Type 4 76.1mm OD x 3.2mm Thick with Flange base
The height shall be as instructed.

(v) All posts shall be supplied complete with plastic end caps.

(vi) Signposts shall be galvanised and protected against corrosion in accordance with Clause 1204.

(vii) Sign Post Bracket types shall be defined as:

Type I Standard clip outreach with flange.
Type 2 Post top outreach with flange.
Type 3 Post top outreach with adjustable lantern fixing and flange.
Type 4 Double arm post top outreach with flange.
Type 5 For single spot lamps.
Type 6 For twin spot lamps.

(viii) Sign post brackets shall be made by the same manufacturer as the sign lighting units.

(ix) Sign post brackets shall be galvanised and protected against corrosion in accordance with Appendix 19/3.
WORKS INFORMATION – Specification

8 Sign Fix Clips

   (i) Sign fix clips shall be made of stainless steel.

9 Ducting

   (i) The Type of duct to be installed through the foundations of a post into which electrical equipment is to be installed, shall be 50mm diameter UPVC street lighting duct of 5mm wall thickness.
WORKS INFORMATION – Specification

APPENDIX 12/3: TRAFFIC SIGNS: ROAD MARKINGS AND STUDS

1 The colour, location and material type of all new and replacement road markings and studs shall be as stated in the instructing Package Order.

2 All proposed road markings shall be reflectorised, but tack coats shall only be used on the express written instruction of the Overseeing Organisation.

3 Permanent and temporary road markings shall have a skid resistance level of at least 55, where:

   (i) any line width exceeds 200mm;

   (ii) any dimension in any other symbol or marking, exceeds 200mm.

4 There is no requirement for raised rib markings to be used in this contract.

5 Trials carried out on Thin Surface Courses, complying with SHW Clause 942SR, have indicated that some temporary road marking materials leave a sticky deposit on the surface and/or cause surface aggregate to pluck out. The Contractor shall undertake sufficient trials to ensure that any temporary road marking tape or road stud (or tack coat used in the application of either of these) that he proposes to use will come free from the surface without damaging it.
WORKS INFORMATION – Specification

APPENDIX 12/4: TRAFFIC SIGNS: CONES, CYLINDERS, FTD’s AND OTHER TRAFFIC DELINEATORS

1 The Contractor shall submit to the Overseeing Organisation any proposals for using types of traffic delineators, other than cones, cylinders and Flat Traffic Delineators (FTD’s), not less than two weeks before he intends to use them. The Contractor shall not use traffic delineation systems, other than cones, cylinders and FTD’s, without the prior written approval of the Overseeing Organisation.

The requirements, sampling rate and method of testing cones, cylinders, FTD’s and other delineators shall be:

Permanent traffic cones and traffic cylinders

Certification that the permanent traffic cones and cylinders have been tested and comply with BS 873: Part 8 is required.

Flat traffic delineators (FTD)

Certification that FTD’s have been tested and comply with Clause 1214 is required.

Other traffic delineators

Certification that the delineators have been tested and comply with Clause 1214 is required.

The height of FTD’s shall be 925mm unless otherwise agreed with the Overseeing Organisation.
WORKS INFORMATION – Specification

APPENDIX 12/5 - TRAFFIC SIGNS: TRAFFIC SIGNALS

1. Permanent Traffic Signals:

Any alterations to permanent traffic signals will be undertaken by Transport for London and the local electricity supply company or their respective sub-contractors. The Contractor shall allow in his rates for programming his work to suit their requirements. The allowance shall include for preliminary discussions, phasing of work to suit and any delays that the Contractor may feel will be caused to him as a result of the foregoing.

2. Temporary Traffic Signals:

The use and positioning of temporary traffic signals shall be agreed with the Overseeing Organisation prior to their installation.

Temporary traffic signals shall be vehicle actuated and comply with Department of Transport Specifications MCE0111 and MCE 0114. The power supply shall be a portable generator, and they shall be installed and used in accordance with:-

(i) Chapter 8 of the Traffic Signs Manual;

(ii) Department of Transport Standards TD 21/85 and TA 47/85;

(iii) "An Introduction to the Use of Vehicle Actuated Portable Traffic Signals" published by HMSO.

The portable generator used as a power supply shall be a sound reduced model and be properly silenced and maintained in accordance with the manufacturer's instructions and operated in accordance with BS 5228:1984. If the generator is required at night between 8.00 p.m. and 8.00 a.m., it shall be surrounded by effective acoustic screens accepted by the Overseeing Organisation.

Cables for the traffic signals which cross the carriageway which is open to vehicles shall be contained in a Cable Crossing Protector designed to prevent damage to the cable and to permit traffic, particularly two wheeled vehicles, to cross safely. Drivers must be warned of the presence of the Cable Crossing Protector by means of "RAMP" signs.

The Contractor shall provide all operatives using temporary traffic signals with the Department of Transport booklet "An Introduction to the Use of Vehicle Actuated Portable Traffic Signals" published by HMSO in May 1986 and any subsequent amendments.

The Contractor shall provide the necessary advance warning signs and shall have STOP/GO signs available for immediate use in case of electrical or mechanical breakdown.
WORKS INFORMATION – Specification

The maximum distance between the two signal heads, when using temporary traffic signals, shall not exceed 150 metres unless otherwise agreed with the Overseeing Organisation.


For some short duration works, when agreed with the Overseeing Organisation, the Contractor may use manual STOP/GO sign traffic control. All operators of STOP/GO signs shall be suitably experienced and certificated for this type of work. The traffic signs layout for this type of work shall be in accordance with Chapter 8 of ‘The Traffic Signs Manual.’

Where the length of the works necessitates the use of two STOP/GO signs, then their operators shall ensure that they are clearly visible to each other at all times. If not then a third central operator may be required to relay instructions to the two STOP/GO sign operators.
WORKS INFORMATION – Specification

APPENDIX 17/1: CONCRETE – CLASSIFICATION OF MIXES

1 The requirements for any structural concrete required in the Works shall be as stated in the instructing Package Order but shall, typically, be either a Compressive Strength Class C16/20, or C32/40, complying with BS EN 206-1. The Contractor is reminded that this specifies a concrete with a 16N/mm² required minimum characteristic cylinder strength & 20N/mm² required minimum characteristic cube strength. The maximum aggregate size, and other requirements, shall be as instructed by the Overseeing Organisation.
WORKS INFORMATION – Specification

APPENDIX 17/4: CONCRETE – GENERAL

1 The requirements for concrete shall be those stated in sub-Clause 1701.1, unless otherwise stated in the instructing Package Order.

2 The requirements for cement shall be as stated in sub-Clause 1702.1, unless otherwise stated in the instructing Package Order.

3 The requirements for lightweight aggregates shall be as stated in sub-Clause 1702.2, unless otherwise stated in the instructing Package Order.

4 All admixtures shall comply with the requirements of sub-Clause 1702.3, unless otherwise stated in the instructing Package Order.

5 Routine identity testing for compressive strength, slump, flow and air content of concrete batches shall only be undertaken upon the issue of a written instruction by the Overseeing Organisation. Such instructions will only be issued where there is a specific doubt over the quality of the concrete in question.

6 Details of any requirements for construction joints shall be as stated in the instructing Package Order.

7 Retarding agents shall not be used, except upon the prior written instruction of the Overseeing Organisation.

8 Details of any requirements for any permanent formwork shall be as stated in the instructing Package Order.

9 Details of any requirements for lifting and supporting any precast concrete members shall be as stated in the instructing Package Order. The Contractor shall ensure that all requirements for the lifting and supporting of precast members are properly addressed in the Construction Phase Health and Safety Plan.

10 Details of any requirements for the assembly and erection of any precast concrete members shall be as stated in the instructing Package Order. The Contractor shall ensure that all requirements for the assembly and erection of precast members are included in his Construction Phase Health and Safety Plan for the Work Package.

11 Details of any requirements for reinforcing bars shall be as stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 19/1: NEW WORKS - PAINT SYSTEM SHEET


3. Required durability: No maintenance up to 8 years. Minor maintenance from 8 years. Major maintenance after 15 years.


(i) Surface preparation. Parapets

**Area A**
All surfaces, subject to accessibility.
Method: Pickling for galvanising.
Standard: In accordance with Clause 191 I.

(ii) Protective System

**Area A**
Metal coating; Galvanising
Shop. 1st coat: Item 155, ‘T’ wash
Shop. 2nd coat: Item 171, Zinc Phosphate AR undercoat
Shop. 3rd coat: Item 173, MIO AT undercoat
Shop. 4th coat: Item 175, AR finish, mdf 5Oum.
Colour to finish: 18 E 53 as agreed by the Engineer.
Minimum total dry film thickness 200um.

(iii) Application Instructions

(a) All surfaces to receive protective coatings. The method of application indicated by the Item No may be changed by the Contractor, the new Item Number being entered in Appendix 19/5 by the Contractor’s paint supplier.

(b) Fasteners
For fasteners in parapets see Clause 1904.2.

5. Paint Suppliers
Paints for any one system shall be obtained from the same manufacturer.
WORKS INFORMATION – Specification

1. Environment: Inland B

2. Accessibility: Difficult Access

3. Required durability: No maintenance up to 8 years
   Minor maintenance from 8 years
   Major maintenance after 15 years

4. Description of existing protective system
   Oleo-resinous systems over galvanising typically up to 10 coats with the first few coats containing lead. Total thickness from 350 to 500 microns.

5. Sequence of operations

   (i) Surface preparation shall be followed progressively by painting, the work being arranged in such a manner that the painting in progress and newly applied paint is not adversely affected;
   (ii) unless otherwise agreed by the Engineer the sequence of surface preparation shall be in the order of the areas listed below;

6. Surface preparation and Protective System *Type 15 (Maintenance))

   (i) Surface Preparation, parapets

   AREA A

   All external surfaces of existing parapets including galvanised painted mesh
   Method (a): Cleaning down in accordance with Clause 1903.9
   Standard: In accordance with Clause 1908.1(xi)
   Method (b): Abrading in accordance with Clause 1903.4 to 8, 1905.1 and 1905.9
   Standard: In accordance with Clause 1908.1 (I), (ii), (vi) and (x)

   (ii) Protective system

   AREA A

   1st Coat Item 155 ‘T’ Wash
   Over surfaces abraded to bright metal coating
   Apply by brush
   2nd Coat Zinc Rich Moisture Curing Urethane Primer
   Over surfaces abraded to bright steel
   Apply by brush, 75um mdft
   3rd Coat Moisture Curing Urethane Red Oxide Primer
   Over I and 2 coat above
   Apply by brush 30um mdft
   4th Coat Moisture Curing Urethane MIO Undercoat
   Overall coat
   Apply by brush 50um mdft
WORKS INFORMATION – Specification

5th Coat Moisture Curing Urethane Undercoat
Overall coat
Apply by brush 30um mdft

6th Coat Moisture Curing Urethane Finish
Overall coat
Apply by brush 30um mdft
Colour of finish I 8E53 to BS4800

(iii) Summary of Protective system (Type I 5(Maintenance))
Stripe Coats: As Clause 1916.13.
Patch Coats: MC Urethane MIO undercoat 50mm mdft — Brush
The total d.f.t. of existing coats plus new coats including patch coats shall be not less than 250mm. Number of patch coats to suit.

(iv) Application Instructions

As manufacturers instructions. NB Harmful to respiratory organs — air fed masks must be worn.

(v) Paint Suppliers

Paints for any one system shall be obtained from the same manufacturer.

<table>
<thead>
<tr>
<th>Coat and Description</th>
<th>Condition of Surfaces of Existing System after Surface Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abraded to Bright Steel mdft (um)</td>
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<tr>
<td><strong>1St Coat:</strong> Item 155 ‘T’ Wash</td>
<td>NIL</td>
</tr>
<tr>
<td>2 Coat: Zinc Rich MC Urethane Primer</td>
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</tr>
<tr>
<td>3rd Coat: MC Urethane Red Oxide Primer</td>
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</tr>
<tr>
<td>4th Coat: MC Urethane MIO Undercoat</td>
<td>50</td>
</tr>
<tr>
<td>5th Coat: MC Urethane Undercoat</td>
<td>30</td>
</tr>
<tr>
<td>6th Coat: MC Urethane Finish</td>
<td>30</td>
</tr>
<tr>
<td>Min/ Total dft to be obtained</td>
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</tr>
</tbody>
</table>

Min/ Total dft to be obtained  250  150  125
WORKS INFORMATION – Specification

APPENDIX 19/4: (SPECIFICATION FOR HIGHWAY WORKS) FORM HA/P3
PAINT SAMPLE DESPATCH LIST: SHEETS 1 AND 2

Pedestrian Guardrails

1. Environment: Inland “B”

2. Accessibility: Ready Access

3. Required durability: No maintenance up to 6 years
   Minor maintenance from 6 years
   Major maintenance from 12 years

4. Surface preparation and protective systems.

(i) Protective preparation and systems.

   Area A

   1st Coat: Item 155, ‘TWash’
   2nd Coat: Item 7, Zinc Chromate etch primer (2 pack).
   3rd Coat: Item 74 or 75, Silicone Alkyd undercoat.
   4th Coat: Item 71 or 72, Silicone Alkyd finish.
   Colour of finish: As instructed to BS4800, 18B29

   Minimum total dry film, thickness: 200 microns.

(ii) Application Instructions

   (a) The ‘T Wash’ and coats of paint may be applied in the shops or on site at
   the Contractors option.

   (b) The number of coats of paint comprising the system and or the method of
   application may be changed by the Contractor, the new number of coats
   and/or Item number being entered in Appendix 19/5 by the Contractors paint
   supplier.

(iii) Fasteners

   Bolts, nuts and washers shall be supplied Zinc electroplated or galvanised and after
   the joint is made, prepared and painted as for the guardrail.

5. Paint Suppliers:

   Paints for any one system shall be obtained from the same manufacturer.
WORKS INFORMATION – Specification

APPENDIX 19/5: NEW WORKS – GENERAL REQUIREMENTS

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<th>TITLE:</th>
<th>STRUCTURE REFERENCE:</th>
<th>NO/NAME:</th>
<th>2. DATE OF ISSUE OF DOCUMENTS TO TENDERERS:</th>
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<th>ACCESSIBILITY: Access</th>
<th>4. REQUIRED DURABILITY</th>
<th>8. PAINT MANUFACTURER:</th>
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<tr>
<td></td>
<td></td>
<td>NO MAINTENANCE up to 8 years</td>
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<tr>
<td></td>
<td></td>
<td>MINOR MAINTENANCE from 8 to 15 years</td>
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<td></td>
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<td>MAJOR MAINTENANCE from 15 years</td>
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<tr>
<th>BILLED AREAS:</th>
<th>6. SURFACE PREPARATION</th>
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<tr>
<td>Columns, Beams, cross beams, duck plates</td>
<td>By abrading By combined wet/dry blast cleaning</td>
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<th>ITEM NO</th>
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<tr>
<td></td>
<td>Blast cleaned/abraded Blast cleaned/abraded Sound finish or last u/c Other sound paint to clean metal coating to bright steel Areas A Areas A &amp; D coats Areas A &amp; D Areas B &amp; C &amp; D</td>
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<th>Application</th>
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<td>60 AS</td>
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<td>60 AS</td>
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<td>4800</td>
<td>60 AS</td>
<td>60 AS</td>
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<td>DFT TO 200 urn</td>
<td>200 urn</td>
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## WORKS INFORMATION – Specification

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<td>GRID REFERENCE:</td>
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<tr>
<td>3. ENVIRONMENT: Inland B exposed to road salts</td>
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<td>ACCESSIBILITY: Difficult Access</td>
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<tr>
<td>4. REQUIRED DURABILITY</td>
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<td>NO MAINTENANCE up to 8 years</td>
</tr>
<tr>
<td>MINOR MAINTENANCE from 8 to 15 years</td>
</tr>
<tr>
<td>MAJOR MAINTENANCE from 15 years</td>
</tr>
<tr>
<td>5. BILLED AREAS: Pan abets</td>
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<tr>
<td>By combined wet/dry blast deaning</td>
</tr>
<tr>
<td>6. SURFACE PREPARATION</td>
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<tr>
<td>COAT, ITEM NO, REGISTERED DESCRIPTION, COLOUR</td>
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<tr>
<td>7. CONDITION OF SURFACES OF EXISTING SYSTEM AFTER SURFACE PREPARATION</td>
</tr>
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<td>Blast cleaned/abraded to clean metal coating Areas B&amp;C</td>
</tr>
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<td>Sound finish or last u/c Areas A &amp; D</td>
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<tr>
<td>Other sound paint coats Areas A &amp; D</td>
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<tr>
<td>8. PAINT MANUFACTURER:</td>
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</table>

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<td>200 um 300 um 200 um 200 um</td>
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</table>

MIN TOTAL DFT TO BE OBTAINED: 200 um 300 um 200 um 200 um
WORKS INFORMATION – Specification

APPENDIX 20/2: WATERPROOFING FOR CONCRETE STRUCTURES

1. The Overseeing Organisation will instruct the location extent and type of existing waterproofing to be removed. This will generally be the removal of existing mastic asphalt or proprietary spray or squeegee applied proprietary systems.

2. The replacement waterproofing shall be a proprietary spray or squeegee applied system with a HAPAS Approval Certificate.
WORKS INFORMATION – Specification

APPENDIX 24/1: BRICKWORK, BLOCKWORK AND STONWORK

1 The Contractor shall only use sulfate-resisting Portland cement for clay brick masonry in retaining walls or in structures when required in the instructing Package Order.

2 Unless otherwise stated in any Package Order, the Contractor shall use mortar designations either (i) and (ii), except for masonry which incorporates reconstructed stone, concrete or calcium silicate bricks and blocks, where mortar designation (iii) shall be used.

3 The particular requirements for clay bricks to BS 3921 shall, unless otherwise stated in the instructing Package Order, be:

**Bricks Type 1**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Durability (Refers to the Frost Resistance and the Soluble Salt Content of the brick as described in BS 3921)</td>
<td>FN or FL</td>
</tr>
<tr>
<td>Compressive Strength (N/mm²)</td>
<td>20.0</td>
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<tr>
<td>Colour</td>
<td>Red</td>
</tr>
<tr>
<td>Water Absorption % Weight</td>
<td>Less than 7</td>
</tr>
<tr>
<td>Brick Type</td>
<td>Solid or perforated</td>
</tr>
</tbody>
</table>

* Refers to the Frost Resistance and the Soluble Salt Content of the brick as described in BS 3921

Or Class B Engineering Bricks

4 The requirements for bricks for chambers shall be as stated in sub-Clause 2406.4, unless otherwise stated in the instructing Package Order.

5 The particular requirements for concrete blocks to BS 6073 shall, unless otherwise stated in the instructing Package Order, be:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Size mm (L x H x T)</td>
<td>390 x 190 x 100</td>
</tr>
<tr>
<td>Minimum Compressive Strength (N/mm²)</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Any special requirements shall be as stated in the instructing Package Order.

6 Details of the type and quality of any natural building stone required shall be as stated in the instructing Package Order.
WORKS INFORMATION – Specification

7 Any particular requirements for working with reconstructed stone shall be as stated in the instructing Package Order.

8 The type of bonding for brickwork and blockwork shall be as stated in the instructing Package Order.

9 Overhand work shall only be undertaken when permitted or specified in the instructing Package Order.

10 The requirements for pointing shall be as stated in the instructing Package Order.

11 The requirements for jointing and type of finish required shall be as stated in the instructing Package Order.

12 The requirements for dimensions of stones shall be as stated in sub-Clause 2413.1, unless otherwise stated in the instructing Package Order.

13 The requirements for tooling stonework required shall be as stated in the instructing Package Order.

14 The requirements for dimensions of bond stones shall be as stated in sub-Clause 2413.9, unless otherwise stated in the instructing Package Order.

15 The requirements for levelling squared random rubble coursed and uncoursed stonework required shall be as stated in the instructing Package Order.

16 The variation in depth, front to back for masonry facework shall be as stated in the instructing Package Order.
WORKS INFORMATION – Specification

APPENDIX 26/1: ANCILLARY CONCRETE

1 Sulfate-resisting Portland cement shall only be used in ancillary concrete mixes that may be expected to remain wet for long periods of time, and when stated as required in the instructing Package Order.

2 The maximum size of aggregates used in any ancillary concrete shall be 20mm, unless otherwise stated in the instructing Package Order.

3 The uses of ancillary concrete shall be as stated in Table 26/1, unless otherwise stated in the instructing Package Order.
WORKS INFORMATION – Specification

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WORKS INFORMATION - Method of Measurement

The term Overseeing Organisation means the Council of the London Borough of Barnet, as represented by the person named in Contract Data Part One, or others to whom authority has been delegated in accordance with the conditions of contract.

The Method of Measurement for Highway Works is amended as follows:

Throughout the Method of Measurement for Highway Works, delete all references to the terms "Bill of Quantities" and "Bills of Quantities" and replace with the terms "Price List" and "Price Lists" as appropriate.

Throughout the Method of Measurement for Highway Works, delete the words "Chapter II paragraphs 3 and 4" from all itemisation paragraphs.

Delete the existing Chapter I and replace with the following:

Chapter I Definitions

1 In this document, which is based upon the Method of Measurement for Highway Works (including the May 2005 amendments and hereinafter referred to as "the Method of Measurement") unless the context otherwise requires, the following words and expressions shall have the meanings hereby respectively assigned to them, that is to say:

(a) "Conditions of Contract" means the Conditions of Contract referred to in the Tender;

(b) words and expressions to which meanings are assigned in the Conditions of Contract, Service Information, Specification, Package Orders and any Drawings issued have the same meanings in the Method of Measurement;

(c) "Price List" means a list of items giving brief identifying descriptions of items of work, for which quantities cannot be determined, but for which it is deemed necessary to make provision;

(d) Not used;

(e) "Preliminary Item" means an item in respect of the work antecedent to or involved in the provision of the Work and which is set out in a "Preliminaries" section of the Price List;

(f) Not used;

(g) "Existing Ground Level" means the level of the ground before any work is carried out under this contract;

(h) "Hard Material" means material which requires the use of breakers or splitters for its removal but excluding individual masses less than 0.20 cubic metres;
WORKS INFORMATION - Method of Measurement

(i) "Culvert" means an enclosed channel or pipe designated as a culvert in the Contract;

(j) "Type of Pavement" means one of the following designs of pavement:
   (i) flexible;
   (ii) composite;
   (iii) rigid;

(k) Not used.

Delete the existing Chapter II and replace with the following:

Chapter II - General Principles

Method of Measurement 1

Price List 2
In the Price List, the sub-headings and item descriptions identify the work covered by the respective items read in conjunction with the matters listed against the relevant marginal headings "Item coverage" in the amended Chapter IV of the Method of Measurement, and the amended Chapter III Preambles to the Price List. The nature and extent of the work to be performed is to be as can be reasonably foreseen by an experienced Contractor, by reference to the Specification and Conditions of Contract.

3 Not used.

4 Not used.

Chapter III – Preparation of Price List

Delete the entire text of Clause 1 and replace with the following:

Sub-division of Price List 1
The Price List is to be divided into separate Series, corresponding to those used in the Specification for Highway Works.

Delete the entire text of Clauses 3, 4, 6, 7, 8 & 9 and replace each with “not used”.

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WORKS INFORMATION - Method of Measurement

Delete Tables 1 to 5 inclusive.

Delete the entire section headed “Preambles to Bill of Quantity and replace with the following text:

Preambles to the Price List

The following Preambles supersede those set down in Chapter III of Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works.

General Directions

1  The Price List has been prepared in accordance with the Method of Measurement for Highway Works published by Her Majesty’s Stationery Office as Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works, as amended for this contract. The relevant publication date of each page of the Method of Measurement for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.

2  In the Price List the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, as amended for the contract and these Preambles. The nature and extent of the work to be performed is to be as can be reasonably foreseen by an experienced Contractor, by reference to the Works Information and Conditions of Contract and each individual Package Order issued. The rates and prices entered in the Price List shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:

(i) Labour and costs in connection therewith.

(ii) Profits and overheads.

(iii) Mobilisation, operation, servicing and eventual demobilisation of Contractor’s offices, depots, communication systems, messes, stores, workshops, compounds and welfare facilities at transient construction sites including everything required by the Contractor in connection therewith, except where covered by sub-paragraph 2(iv) below.

(iv) Establishment, operation, servicing, re-location, re-establishment and eventual removal of offices, stores,
WORKS INFORMATION - Method of Measurement

workshops, compounds and communication systems at any location where at least two of the Contractor’s staff are expected to be working for more than one week, except where covered by sub-paragraph 2(iii) above.

(v) The supply of materials, goods, all storage and reporting of stock levels, and costs in connection therewith including delivery to any Site. Taking delivery of materials and goods supplied by others, unloading, storage, and costs in connection therewith.

(vi) All temporary traffic safety and management measures, as required by the contract and including overcoming problems caused by parked cars or other temporary obstructions, except those for which separate items are included in the Price List which shall apply when instructed by the Overseeing Organisation.

(vii) Contractor’s Equipment and costs in connection therewith.

(viii) Fixing, erecting and installing or placing of materials and goods in position.

(ix) Temporary works, including the provision of temporary access equipment if required.

(x) The effect on the programming of any element of the Works to the extent set forth or reasonably implied in the documents on which the tender is based.

(xi) Providing the Works, including the phasing of the Works or any element of the Works, as described or reasonably implied in the documents on which the tender is based.

(xii) Waste and taking all reasonable measures to reduce wastage of all construction materials, particularly through the adoption of sustainable construction techniques.

(xiii) Supplying results of tests, reports and certificates in accordance with the particular requirements of Appendix 1/5.

(xiv) Supply and delivery of samples to the Overseeing Organisation in accordance with the particular requirements of Appendix 1/6 and any Package Order.

(xv) Checking, inspecting, examining, measuring and verifying goods, materials and workmanship including
WORKS INFORMATION - Method of Measurement

supplying results, reports and certificates.

(xvi) Attendance and transport for sampling and testing carried out by or on behalf of the Overseeing Organisation.

(xvii) Complying with Quality Assurance requirements of the Contract and providing certificates of conformity.

(xviii) Preparation and supply of detailed working drawings.

(xix) Submitting and awaiting acceptance of requests for authorisations, quotations and/or consents.

(xx) Travelling to, between and from different Sites.

(xi) Complying with the particular requirements of Appendix 1/24.

(xxii) Ensuring that sufficient time and resources are allowed, to enable the completion of proper planning, preparation and consideration of proposed working method so that work can be undertaken safely and without risk to health, in accordance with the Construction (Design & Management) Regulations Approved Code of Practice.

(xxiii) Providing adequate progress reporting, as required by the Overseeing Organisation in accordance with the contract.

(xxiv) Undertaking all consultation, liaison, authorisation procedures, pre-works notification and signing, and issuing all notifications in accordance with the contract, including collecting works notification letters from the Employer’s offices, preparing his own works notification letters, and distributing all such letters to affected residents.

(xxv) Co-ordinating different operations and using different materials and Equipment in close proximity in adjacent bays and restricted working areas in footways, vehicle crossovers and paved areas.

(xxvi) All consultation, communication, special measures required to maintain access and all other constraints on working required in association with the construction of vehicle crossovers.

Measurement 3 (i) The measurement of work undertaken under the contract shall be computed net from the dimensions stated in the contract, or in the instructing Package Order issued under it, unless otherwise stated in the Method of Measurement.
WORKS INFORMATION - Method of Measurement

(ii) Where the tender documents specify the Type of Pavement to be re-constructed then the measurement of work shall be based upon the thinnest pavement construction and surfacing over structures permitted by this contract for that Type of Pavement. Where the tender documents provide for the Contractor to select the type of pavement to be constructed then the measurement of all work in each area so affected shall be based upon the thinnest pavement construction and surfacing over structures permitted by this contract in that area for the particular type of pavement the Contractor has elected to construct.

(iii) The Price List permits certain items of work to be measured and paid for in various quantity bands. The measurement of such items shall be the final total quantity completed in accordance with the particular Package Order through which they were instructed, whether undertaken at single or multiple locations or in single or multiple working operations. The rate payable for each item on each Package Order shall be the rate stated in the quantity band rate that is applicable to the final total quantity of that item that is completed in accordance with the particular Package Order. Each item in the Price List shall only be used once for each Package Order. Quantities shall be expressed to two decimal places, except for tonnes and hectares which shall be measured to three decimal places.

(iv) The measurement of regulating material shall be calculated from the tonnage material certificates using the factors of 0.43m³/tn for machine laid and 0.45m³/tn for hand laid.

Pricing of Items

4 (i) Each individual item and, where applicable, each quantity band shall have a rate or price entered against it. Rates and Prices shall be expressed to two decimal places.

(ii) The rates and prices entered in the Price List shall be applicable to work undertaken at any location as stated in the instructing Package Order.

(iii) The rates and prices entered in the Price List shall be applicable regardless of how frequently, or infrequently, the items to which they apply are actually undertaken.
WORKS INFORMATION - Method of Measurement

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<tr>
<th>Alternative Specified Materials, Designs and Options Within Types of Pavement</th>
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<tr>
<td>Where in this contract a choice of alternatives is permitted:</td>
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<td>(i) the scheduled description and the rates and prices inserted shall be deemed to cover any of the permitted alternative materials or designs the Contractor may elect to use;</td>
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<tr>
<td>(ii) And where, in the instructing Package Order, the use of alternative materials is permitted within Series 700: Pavements, for each Type of Pavement permitted by this contract the rates and prices inserted in respect of the particular Type of Pavement shall also be deemed to cover any inherent permitted option within the Type of Pavement elected to be constructed by the Contractor.</td>
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<tr>
<th>Privately and Publicly Owned Services or Supplies</th>
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<tr>
<td>The Overseeing Organisation will supply all available information to the Contractor, in each Package Order, regarding the whereabouts of existing services and mains that may be affected by that Package Order. Such information will be as supplied to the Overseeing Organisation by the service owner, but the Contractor shall not be relieved thereby of his obligations under this contract. The Contractor shall include in his rates and prices for consulting with all affected service owners, locating and taking measures for the support and full protection of pipes, cables and other apparatus during the progress of the Works, obtaining the written consent of the appropriate authority to interrupt the service or supply and for keeping the Overseeing Organisation informed of all arrangements he makes with owners of privately owned services or supplies, Statutory Undertakers and Public Authorities as appropriate.</td>
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<th>Roadworks Overall Requirements</th>
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<tr>
<td>The Contractor shall allow in his rates and prices for complying with requirements in respect of pavement construction, horizontal alignments, surface levels and surface regularity of pavement courses, dealing with changes in weather conditions, use of surfaces by traffic and construction Equipment and general requirements for subbases and road bases.</td>
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<th>Dealing with Flow</th>
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<tr>
<td>The Contractor shall allow in his rates and prices for taking measures to deal with the existing flow of water, sewage and the like.</td>
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<th>Site Limitations</th>
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<tr>
<td>The Contractor shall allow in his rates and prices for</td>
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WORKS INFORMATION - Method of Measurement

and Constraints

Hard Material 11 For the purposes of this contract all existing pavements, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres are designated as Hard Material in accordance with Chapter I Definitions, paragraph 1(h).

Equivalent Products and Materials 12 Where the Contractor offers an equivalent product or material in place of the one identified or specified, then the rates and prices in the Price List shall be deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the works, including design, provision of data and drawings, certificates, awaiting acceptance, resubmissions and modifications and amendments to the Works. Unless specifically stated to the contrary in this contract the measurement of the works affected by the incorporation of the equivalent products and materials shall be based on the tender documents and not on the Works as amended and completed to incorporate the equivalent products and materials.

Value of Works 13 No value of works can be assigned, nor should be implied, due to the call off nature of the contract and annual budget variations within the Employer's revenue and capital allocations.

Rate Adjustments for Non-Standard Working Hours 14 The Price List permits the Contractor to enter percentage adjustments to the standard rates and prices to cover the additional costs he can expect to incur when carrying out works outside of the Normally Permitted Working Hours, or during restricted working hours. These adjustments shall only be applied to works that the Overseeing Organisation orders to be undertaken outside of Normally Permitted Working Hours or during restricted working hours.

Machine Laid Surfacing 15 The Contractor shall assume when pricing that all carriageway surfacing work is to be machine laid, unless otherwise stated.

SCHEDULE OF PAGES AND RELEVANT PUBLICATION DATES

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<th>Page Number</th>
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## WORKS INFORMATION - Method of Measurement

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WORKS INFORMATION - Method of Measurement

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Chapter IV – Units and Methods of Measurement

For the purposes of this contract the Method of Measurement for Highway Works is amended as follows:

SERIES 100 : PRELIMINARIES

Delete paragraph 18 and replace with the following text:

18 The unit of measurement shall be:

   (i) information boards ..... pair

Add the following item to the end of paragraph 20, as shown below:

(l) Taking down, transporting and relocating signs as necessary or instructed;

(m) Storing boards when they are not in use.

Delete paragraphs 21 to 55 and substitute the following:-

General Traffic Safety and Management

Units 21 The unit of measurement shall be:

   i. General traffic safety and management..... item.

Measurement 22 General traffic safety and management shall be measured separately for each Package Order issued under the contract and shall include all general traffic
WORKS INFORMATION - Method of Measurement

safety and management activities required, excluding those for which separate items are included in the Price List.

Itemisation

| Itemisation | 23 | Separate items shall be provided for general traffic safety and management in accordance with the following: |

Item Coverage

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The items for general traffic safety and management shall in accordance with the Preambles to the Price List General Directions, include for the following:

(a) complying with the recommendations contained in Chapter 8 of the “Traffic Signs Manual” published by The Stationery Office and any amendment thereto or where the circumstances of any particular case are not covered submitting proposals for dealing with such situations to the Overseeing Organisation for its consent and incorporating these proposals into the Contractor’s Construction Phase Health and Safety Plan;

(b) complying with particular requirements of the Contract;

(c) initiating or continuing consultation with statutory, police or other authorities concerned, proposing or developing and submitting to the Overseeing Organisation, proposals based on such consultation showing a scheme of traffic safety and management measures including details of safety zones and emergency routes and furnishing such details as necessitated by the works or as the Overseeing Organisation may require;

(d) design of traffic safety and management measures specified by the Overseeing Organisation;

(e) traffic safety and control personnel;

(f) modification and resubmission of proposals and designs;

(g) traffic signs, driver information signs, traffic signs provided by the Overseeing Organisation, road markings, lamps, barriers, and traffic control signals including maintaining, cleaning, repositioning, covering, uncovering and removing (Except where measured separately);
WORKS INFORMATION - Method of Measurement

(h) complying with the requirements for labour and plant working on or adjacent to a highway and at entry and exit points to the Site including signing;

(i) road lighting, modification, and removal;

(j) notifying the Overseeing Organisation’s Traffic Manager of the scheduled and actual staring and completion dates of the Works;

(k) collecting, temporarily erecting and returning any traffic signs or other things provided by the Overseeing Organisation;

(m) surveillance and maintaining stocks;

(n) immediate reinstatement and replacement of defective or damaged items;

(o) maintenance of highways.

Stop & Go Boards

Units  
25 The units of measurement shall be:

(i) Set of Stop and Go Boards………….. hour

(ii) Set of Stop and Go Boards…………..day

Measurement  
26 Set of Stop and Go Boards shall comprise a pair of boards, displaying diagrams 7023 and 7024 respectively, of the Traffic Signs Regulations and General Directions 2002.

Itemisation  
27 Separate items shall be provided for Stop and Go Boards in accordance with the following:

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<tr>
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<tr>
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<td>Set of Stop and Go Boards.</td>
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Item Coverage  
28 The items for sets of Stop and Go Boards shall in accordance with the Preambles to the Price List General Directions include for:

(a) The sign boards;

(b) Suitably trained and experienced operatives;
WORKS INFORMATION - Method of Measurement

(c) All costs incurred by the need for clear communication between the board operators.

Temporary Traffic Signals
Units
29 The unit of measurement shall be:

(i) Set of Temporary Traffic Signals……………..hour
(ii) Set of Temporary Traffic Signals……………..day
(iii) Set of Temporary Traffic Signals……………..week

Measurement
30 Set of Temporary Traffic Signals shall comprise a full set of Temporary Traffic Signals, complying with the requirements of Part One of Chapter Eight of the Traffic Signs Manual.

Itemisation
31 Separate items shall be provided for Temporary Traffic Signals in accordance with the following:

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<td>Set of Four-Way Temporary Traffic Signals.</td>
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Item Coverage
32 The items for sets of Temporary Traffic Signals shall in accordance with the Preambles to the Price List General Directions include for:

(a) All necessary equipment including signals, cabling and cable protectors and suitable portable electricity generator and suitable standby resources;

(b) Suitably trained and experienced operatives;

(c) Setting up all equipment, including calibrating vehicle actuation settings;

(d) Setting aside and safely storing all equipment when not in use;

(e) Repetition of items (c) and (d) above, when necessary;

(f) Removing all equipment upon completion of its use.

Extra Over Temporary Traffic Signals for Attendance to
WORKS INFORMATION - Method of Measurement

Manually Controlled Traffic Signals

33 The items for extra over temporary traffic signals for attendance to manually controlled traffic shall, shall in accordance with the Preambles to the Price List General Directions include for all costs incurred by the need for clear communication between those manually controlling the signal equipment.

Temporary Closure of Pedestrian Crossing Points

Units 34 The unit of measurement shall be:

(i) Temporary closure of pedestrian crossing points.....item

Measurement 35 The temporary closure of pedestrian crossing points shall be measured as the provision off all items and activities required to close a pedestrian crossing point in accordance with the requirements Part One of Chapter Eight of the Traffic Signs Manual.

Itemisation 36 Separate items shall be provided for Temporary Traffic Signals in accordance with the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 The temporary closure of “pelican” crossing points</td>
</tr>
<tr>
<td></td>
<td>2 The temporary closure of “zebra” crossing points</td>
</tr>
<tr>
<td></td>
<td>3 The temporary closure of uncontrolled crossing points</td>
</tr>
</tbody>
</table>

Item Coverage 37 The items for the temporary closure of pedestrian crossing points shall in accordance with the Preambles to the Price List General Directions include for:

(a) suitable covers for all types of signal head and signs;

(b) all necessary temporary signs, fixings and barriers;

(c) liaising with the Overseeing Organisation, Transport for London (to arrange the switching on and off of signals), police and other authorities concerned;

(d) taking down and storing all temporary signs, fixings and barriers when they are not in use;
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(e) re-erecting all temporary signs, fixings and barriers when they are required again;

(f) removing all temporary signs, fixings and barriers upon completion of their use.

(a) electronic transmittal of digital images to the Overseeing Organisation;

(b) delivery of photographs on CD-Rom to the Overseeing Organisation;

(c) indexing of electronic images on each CD-Rom;

(d) CD-Rom storage media.

Temporary Signs

Units

The unit of measurement shall be:

(a) Temporary signs…..number.

Measurement

Temporary signs shall be measured as the number of temporary signs, which are not part of the requirements of Chapter 8 of the Traffic Signs Manual, stated in the instructing Package Order or as instructed by the Overseeing Organisation.

Itemisation

Separate items shall be provided for temporary signs in accordance with the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Each sign</td>
</tr>
</tbody>
</table>

Item Coverage

The items for temporary signs shall in accordance with the Preambles to the Price List General Directions include for:

(a) liaising with the Overseeing Organisation to ascertain the precise requirements;

(b) excavation of acceptable material (as Series 600 paragraphs 17 and 18);

(c) excavation of unacceptable material (as Series 600 paragraph 19);

(d) excavation in Hard Material (as Series 600 paragraph 23);
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(e) backfilling and compaction;
(f) in situ concrete (as Series 1700 paragraph 5);
(g) formwork (as Series 1700 paragraph 15);
(h) disposal of material (as Series 600 paragraph 39);
(i) painting, reflectorisation and illumination;
(j) cleaning, maintaining and repairing;
(k) dismantling and removing from Site;
(l) reinstatement of surfaces.

SERIES 200 : SITE CLEARANCE

Delete paragraphs 8 to 11 and substitute the following:-

Take Up or Down and Set Aside for Re-use or Remove to Store Off Site or Tip off Site.

Units 8
The units of measurement shall be:

Take up or down and set aside for re-use or remove to store off Site the following:

i. blockwork and stonework .... cubic metre,
ii. paved areas and the like, brick and concrete block paving .......... square metre;
iii. kerbs, channels, edgings, combined drainage and kerb blocks, fencing, safety fences and the like, pedestrian guard-rail, copings, string courses and the like .......... linear metre;
iv. cable ..... linear metre;
v. road lighting columns, brackets and wall mountings, traffic signs, reflecting road studs, gates, stiles, street furniture, communications cabinets, posts, brackets, signal indicators, shelves, racking, frames, electronic units and the like ...... number;
vi. chamber covers and frames, gully gratings and
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frames and the like ........ number;

vii. individual blocks, features or stones ........ number.

Measurement 9

The measurement for take up or down and set aside for re-use or remove to store off site or dispose of blockwork, stonework, paved areas and the like, brick and concrete block paving, kerbs, kerb quadrants, channels, edgings, combined drainage and kerb blocks, fencing, safety fences and the like, pedestrian guard-rail, copings, string courses and the like, cable, road lighting columns, brackets and wall mountings, traffic signs, reflecting road studs, gates, stiles, street furniture and the like; communication cabinets, posts, brackets, signal indicators, shelves, racking, frames, electronic units and the like; chamber covers and frames, gully gratings and frames and the like; individual blocks, features or stones shall be the volumes, areas, lengths or numbers stated in the Contract or as instructed by the Overseeing Organisation.

Itemisation 10

Separate items shall be provided for take up or down and set aside for re-use or remove to store off site or dispose of in accordance with Chapter II paragraph 3 and 4 and the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1. Take up or down and set aside for reuse.</td>
</tr>
<tr>
<td></td>
<td>2. Take up or down and remove to store off site.</td>
</tr>
<tr>
<td></td>
<td>3. Take up or down and remove to tip off site.</td>
</tr>
<tr>
<td>II</td>
<td>1. Blockwork and stonework.</td>
</tr>
<tr>
<td></td>
<td>2. Paved areas and the like.</td>
</tr>
<tr>
<td></td>
<td>4. Kerbs, channels, edgings, combined drainage and kerb blocks, fencing, safety fences and the like, pedestrian guard-rail.</td>
</tr>
<tr>
<td></td>
<td>5. Copings, string courses and the like.</td>
</tr>
<tr>
<td></td>
<td>6. Cable.</td>
</tr>
<tr>
<td></td>
<td>7. Road lighting columns, brackets and wall mountings, traffic signs, gates, stiles, street</td>
</tr>
</tbody>
</table>
WORKS INFORMATION - Method of Measurement

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Communications cabinets, posts, brackets, signal indicators and the like.</td>
</tr>
<tr>
<td>10.</td>
<td>Electronic units and the like.</td>
</tr>
<tr>
<td>11.</td>
<td>Chamber covers and frames, gully gratings and frames and the like.</td>
</tr>
<tr>
<td>12.</td>
<td>Individual blocks, features or stones.</td>
</tr>
</tbody>
</table>

III 1. Different types and sizes.

IV 1. Different Arrangements

Take Up or Down and Set Aside for Re-use or Remove to Store Off Site or Dispose of.

11 The items for take up or down and set aside for re-use or remove to store off site or dispose of shall in accordance with the Preambles to Bill of Quantities General Directions include for:

<table>
<thead>
<tr>
<th>Item coverage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a) excavation of acceptable material (as Series 600 paragraphs 17 and 18);</td>
</tr>
<tr>
<td></td>
<td>(b) excavation of unacceptable material (as Series 600 paragraph 19);</td>
</tr>
<tr>
<td></td>
<td>(c) excavation in Hard Material (as Series 600 paragraph 23);</td>
</tr>
<tr>
<td></td>
<td>(d) breaking up foundations, unless specified otherwise in the schedule of rates;</td>
</tr>
<tr>
<td></td>
<td>(e) de-tensioning, dismantling and extracting posts;</td>
</tr>
<tr>
<td></td>
<td>(f) cleaning, stacking, protecting and labelling;</td>
</tr>
<tr>
<td></td>
<td>(g) transport and handling;</td>
</tr>
<tr>
<td></td>
<td>(h) disconnecting, removing, disposing of and sealing of services and supplies;</td>
</tr>
<tr>
<td></td>
<td>(i) sand and warning tape to cables where one or more are to remain in a shared trench;</td>
</tr>
<tr>
<td></td>
<td>(j) backfilling and compaction;</td>
</tr>
<tr>
<td></td>
<td>(k) making good to severed ends of existing walls, hedges, and fencing</td>
</tr>
<tr>
<td></td>
<td>(l) disposal of material (as Series 600 paragraph 39);</td>
</tr>
</tbody>
</table>
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(m) reinstatement and making good;
(n) storage facilities;
(o) segregating all sizes of paving flags, including metric and imperial;
(p) segregating paving bricks and blocks into different types, sizes and colours;
(q) excavating and disposing of existing sand, lime mortar or cement mortar bed of any thickness under any paving material (as Series 600 paragraph 19, 23 and 39);
(r) replacing items damaged during the foregoing operations.

Series 400: Road Restraint Systems (Vehicle and Pedestrian)

Add the following after paragraph 47:

Remove from Store and Re-erect Pedestrian Guardrail

Units

48 The unit of measurement shall be:

(i) Remove from Store and Re-erect Pedestrian Guardrail …… linear metre

Measurement

49 The measurement of remove from store and re-erect pedestrian guardrail shall be the total length ordered in any Package Order.

Itemisation

50 Separate items shall be provided for remove from store and re-erect pedestrian guardrail in accordance with the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Each type of guardrail</td>
</tr>
<tr>
<td>II</td>
<td>1 straight or curved exceeding 50 metres radius</td>
</tr>
<tr>
<td></td>
<td>2 curved not exceeding 50 metres radius</td>
</tr>
</tbody>
</table>

Remove from Store and Re-erect Pedestrian Guardrail

51 The items for remove from store and re-erect pedestrian guardrail shall in accordance with the Preambles to the Price List include for:

(a) loading, transporting from store, unloading and positioning for re-erection;
(b) replacement items damaged during the foregoing operations;
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(c) modifications and new materials;
(d) making good to protective system;
(e) fabrication (as Series 1800 paragraph 6);
(f) protective system (as Series 1900 paragraph 4);
(g) excavation in any material (as Series 600 paragraphs 17, 18, 19 and 23);
(h) drilling or forming holes and casting in bolts, base plates and similar fittings;
(i) disposal of material (as Series 600 paragraph 39);
(j) bedding;
(k) filling and making good;

Series 500: Drainage and Service Ducts

Delete item (p) from paragraph 64 and replace as shown below:

(p) All temporary and permanent reinstatement of adjacent surfaces;

Add the following item to the end of paragraph 64, as shown below:

(u) providing and removing temporary bituminous ramping, prior to overlay of adjacent surfaces.

Series 600: Earthworks

Add feature to Group II in paragraph 168, as shown below:

3 0 metres to 3 metres in depth excavated with hand tools.

Add the following text to the end of item (h) in paragraph 169:

….. in footways or carriageways of any kind of bituminous or rigid construction;
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Add item to end of paragraph 169, as shown below:

(i) excavating with hand tools only, when necessary or instructed;

SERIES 700: Pavements

Add the following item to the end of paragraph 19, as shown below:

Item coverage (f) coloured binders and coloured aggregates.

Add the following items to the end of paragraph 28, as shown below:

(m) using appropriately sized Equipment, so as to minimise traffic disruption;

(n) making good any damage or over milling to underlying surfaces;

(o) keeping prepared surface free of loose material in surfaces to be overlaid until they are overlaid.

COLD MILLING (PLANING)

Delete paragraph 28 and substitute the following:

Item Coverage 28 The items for milling shall in accordance with the Preambles to the Price List General Directions include for:

(a) re-shaping and rolling;
(b) shaping to cambers, falls and crowns;
(c) multiple handling of material;
(d) loading into transport;
(e) disposal of material (as Series 600 paragraph 39) or haulage and deposition of the planed off material on any Site, when instructed by the Overseeing Organisation;
(f) working around drainage channels, chamber covers, gully gratings, expansion joints and the like;
(g) brushing and sweeping the carriageway to remove loose and surplus material;
(h) providing ramps as required and removing
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when no longer required;
(i) making the planed off areas safe prior to opening to traffic, especially for cyclists, motorcyclists, etc;
(j) removing road studs not required for re-use;
(k) surface preparation and cleaning;
(l) cutting out and removal of material by other means;
(m) water supply and damping down;
(n) electronic detection sweep, referencing and reports;
(o) temporary stop lines at traffic signal installations.
(p) using appropriately sized Equipment, so as to minimise traffic disruption;
(q) making good any damage or over milling to underlying surfaces;
(r) keeping prepared surface free of loose material in surfaces to be overlaid until they are overlaid until commencement of overlaying process.

Add the following items to the end of paragraph 81, as shown below:

Saw Cutting in Existing Pavements

Units 82 The units of measurement shall be:

(i) Saw Cutting in Existing Pavements.................linear metre.

Measurement 83 The measurement of Saw Cutting in Existing Pavements shall be the total length cut in accordance with the instructing Package Order.

(i) Saw Cutting in Existing Pavements.................linear metre.
WORKS INFORMATION - Method of Measurement

Itemisation 84 Separate items shall be provided for Saw Cutting in Existing Pavements in accordance with the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Saw cutting bituminous pavement.</td>
</tr>
<tr>
<td></td>
<td>2 Saw cutting concrete pavement.</td>
</tr>
<tr>
<td></td>
<td>3 Saw cutting reinforced concrete pavement.</td>
</tr>
</tbody>
</table>

| II    | 1 Saw-cuts not exceeding 100mm in depth. |
|       | 2 Saw-cuts exceeding 100mm in depth but not exceeding 200mm in depth, and so on in steps of 100mm. |

Item Coverage 85 The items for Saw Cutting in Existing Pavements shall in accordance with the Preambles to the Price List General Directions include for:

(a) finding cutting locations

(b) water supply;

(c) monitoring and adjusting Equipment;

(d) removal of loose material and debris;

(e) disposal of material (as Series 600 paragraph 39).

Traffic Calming Features

Units 86 The units of measurement shall be:

(i) Traffic calming feature..................square metre.

(ii) Traffic calming feature..................number.

Measurement 87 The measurement of traffic calming feature shall be the number of features stated in the instructing Package Order, where such features are of a fixed size, and shall be the total area of such features stated in the instructing Package Order, where such features are not a fixed size.
WORKS INFORMATION - Method of Measurement

Itemisation

Separate items shall be provided for Saw Cutting in Existing Pavements in accordance with the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Mini roundabout domes.</td>
</tr>
<tr>
<td></td>
<td>Round top speed hump.</td>
</tr>
<tr>
<td></td>
<td>Speed table.</td>
</tr>
<tr>
<td></td>
<td>Run over area.</td>
</tr>
<tr>
<td></td>
<td>Speed cushions.</td>
</tr>
<tr>
<td>II</td>
<td>different diameters and sizes.</td>
</tr>
<tr>
<td>III</td>
<td>different heights and depths.</td>
</tr>
</tbody>
</table>

Item Coverage

The items for traffic calming feature shall in accordance with the Preambles to the Price List General Directions include for:

(a) determination of the precise location for the feature in consultation with the Overseeing Organisation;
(b) excavation of acceptable material (as Series 600 paragraph 18);
(c) excavation of unacceptable material (as Series 600 paragraph 19);
(d) excavation of hard material (as Series 600 paragraph 23);
(e) milling (as this Series paragraph 28);
(f) disposal of material (as Series 600 paragraph 39);
(g) removing loose material and water;
(h) tack coat (as this Series paragraph 24);
(i) bituminous bound regulating course (as this Series paragraph 14);
(j) rolled asphalt surface course (as this Series paragraph 9).

SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS

Insert the following additional paragraph after paragraph 20:

Extra Over Footways and Paved Areas for Fibre Reinforced Slabs

Item Coverage

The items for extra over footways and paved areas for fibre reinforced slabs shall in accordance with the Preambles to the Price List General Directions include for:
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(a) fibre reinforcement to slabs;

(b) any additional work required as a result of the presence of reinforcing fibres in slabs, such as cutting, etc;

(c) any additional wastage resulting from the presence of reinforcing fibres in slabs;

(d) any additional health, safety and welfare measures required as a result of the presence of reinforcing fibres in slabs.

Add the following to paragraph 21:

Item Coverage 21  (r) cleaning, trimming, regulating, rolling and compaction of top surface of existing sub-base layer where this layer is left in situ;

(s) coloured binders and aggregates;

(t) utilising mechanical lifting equipment to reduce the risk of injury resulting from manual handling operations;

(u) hand pointing of mortar joints;

(v) forming mortar fillets by hand around cover and grating frames, posts or other feature within the paved area and between the edges of paving and boundary walls and fences or edge restraint of any kind.

Delete the existing item (c) from paragraph 26 and replace with the following test:

(c) providing, laying and compacting new sand, bedding or lime mortar.
WORKS INFORMATION - SPECIAL REQUIREMENTS IN RELATION TO STATUTORY BODIES AND LOCAL AUTHORITIES

1 The Special Requirements referred to throughout this Works Information shall be the Special Requirements included in this section of the Works Information, as extended by the specific information contained in the instructing Package Order or otherwise modified in accordance with the contract.

The Contractor shall comply with the Special Requirements in relation to the following organisations, as set out in this section of the Works Information:

- Electricity Generating and Distribution Companies
- Telecommunications Companies
- British Gas (Transco)
- Water and Sewerage Companies
- Transport for London
- British Waterways
- The Environment Agency
- Network Rail
- London Underground Ltd (LUL)
- Barnet London Borough Council

Compliance with such Special Requirements shall not relieve the Contractor of any of his other obligations and liabilities shall not relieve him of his responsibility to comply with the said Special Requirements.

In these Special Requirements the term “Engineer”, applied in the context of the person managing the contract on behalf of the Employer, shall be deemed to be the Overseeing Organisation stated in the Specification section of the Works Information for this contract.
SPECIAL REQUIREMENTS IN RELATION TO ELECTRICITY GENERATING AND DISTRIBUTING COMPANIES

1. For the purpose of this special Requirement the following terms shall have the meanings assigned to them:-
   
   (a) ‘Company’ means:-

   ANY ELECTRICITY GENERATING OR DISTRIBUTING COMPANY

   or its successors and assigns

   (b) ‘Company Representative’ means the Chief Engineer of the said ‘Company’ defined at 1(a) of this Special Requirement or other duly Authorised Engineer, Representative and/or Agent appointed for the time being to act on behalf of the said ‘Company’.

   (c) ‘Plant or Equipment’ means any plant equipment gear machinery apparatus or appliance or any part thereof as defined in the Construction (General Provisions) Regulations 1961 and the Construction (Lifting Operations) Regulations 1961 owned leased or rented by the said ‘Company’ defined at 1(a) of this Special Requirement.

   (d) ‘Electricity Cable(s)’ means any cabling including but not limited to ‘Overhead Electricity Lines’ or ‘Buried Electricity Cables’ owned leased or rented for the purposes of electricity transmission and supply by the said ‘Company’ as defined at 1(a) of this Special Requirement.

2. Before commencing any work or moving heavy plant or equipment over any portion of the Site owned occupied leased or rented by the Company the Contractor shall consult the Company Representative as early as possible and in any event less than fourteen days before it is proposed to commence work to ascertain whether any Electricity Cable(s) or Plant or Equipment will be affected by the Works and to confirm details of any restrictions or requirements that the Company Representative may consider necessary for the safe carrying out of the Works.

3. Where such details show that the Works or the movement of plant or equipment may endanger the equipment of the company, the contractor must ensure that the presence of any Electricity Cable(s) Plant or Equipment can be indicated by markers to be supplied by the company and placed by the Contractor under the supervision of the company Representative. The Contractor shall ensure that all company Electricity Cable(s) Plant or Equipment is adequately protected from damage and such protective measures shall be approved by the Engineer.
WORKS INFORMATION - SPECIAL REQUIREMENTS IN RELATION TO STATUTORY BODIES AND LOCAL AUTHORITIES

4. The work shall be carried out in conformity with the Requirements of the Health and Safety Executive Guidance Notes:-
   
   (i) No. GS6 ‘Avoidance of Danger from Overhead Electric Cables’.
   
   (ii) No. GS33 ‘Avoiding Danger from Buried Electricity Cables’.

5. Except under such restrictions as the Company Representative may impose for the safety of persons and the protection of property WORKS SHALL NOT BE CARRIED OUT or cranes or other plant erected operated and/or dismantled or materials stored WITHIN THE ‘PROHIBITED SPACE’ WHICH IS THAT SPACE WITHIN A RADIUS OF:-

   (a) 15.0M OF LIVE OVERHEAD ELECTRICITY LINES WHERE LINES ARE CARRIED ON STEEL TOWERS.

   (b) 9.0M OF LIVE OVERHEAD ELECTRICITY LINES WHERE THE LINES ARE CARRIED ON WOOD POLES.

   TOGETHER WITH ANYWHERE VERTICALLY ABOVE THIS SPACE, these distances shall be maintained at all times between any Overhead Electricity Lines or anything connected to such Overhead Electricity Lines owned leased or rented by the Company.

6. The Contractor and any sub-contractor employed by him should particularly note and bring to the attention of their respective employees the danger of ‘Flash-over’ where as a result of the very high voltages being transmitted potentially lethal shocks can occur in close proximity to live Overhead Electricity Lines WITHOUT ANY CONTACT BEING MADE.

7. Debris produced with trimming or felling trees and/or from demolition MUST NOT fall to be projected into the ‘Prohibited Space’. Similarly excavation spoil must no be dumped or accumulated so as to cause infringement of the ‘Prohibited Space’.

8. Special care MUST be taken when using material, which shall include but not be limited to, rope wire and/or measuring tape and the like.

9. The Contractor shall exercise particular care when carrying out work which involved the use of water jets or piped slurry. Liquids when being carried or used for the purposes of the Works MUST NOT be allowed to splash fall or otherwise be projected into the ‘Prohibited Space’.

10. If a crane or other equipment is used crane stops fencing and warning notices shall be provided by the Contractor to ensure that there can be no
encroachment on the ‘Prohibited Space’ by crane load or other equipment even if the crane load or equipment slips fails or overturns.

11. Portable ladders used in the vicinity of the live Overhead Electricity Lines shall be of wood or other non-conducting material and shall not be reinforced by metal attachments running along stiles of the ladders. Even ladders without reinforcement can lead to serious electrical shocks if allowed to come close to live overhead equipment and therefore special precautions must be taken to ensure that the ladder cannot slip and encroach on the ‘Prohibited Space’.

12. Any disturbance of or attachment to any Plant or Equipment or Electrical Cable(s) of the Company shall ONLY be carried out by the staff of the Company or its authorised contractors and/or agents.

13. Long objects, which shall include but not be limited to pipes scaffold poles ladders and/or long handled tools or any object of such length that if carried vertically would infringe on the ‘Prohibited Space’ MUST BE CARRIED HORIZONTALLY.

14. Where for the purposes of completing the Works in accordance with the Contract the need arises to operate within the ‘Prohibited Space’ the Contractor shall give the Company representative not less than twenty eight days written notice of the dates upon which it is intended to operate plant or equipment or carry out any work. The permission of the Company Representative MUST be obtained in writing BEFORE any plant or equipment is operated or work of any kind is carried out WITHIN the above distances. Such operations or work shall only be carried out in the presence of the Company Representative unless notice shall have been obtained in writing from the Company Representative that such a presence on Site is not required.

15. In the event of the Company requiring emergency and/or maintenance work to be executed on the Electricity Cable(s) whether Overhead Electricity Lines or Buries Electricity Cables during the period of the Contract the Contractor shall afford all reasonable facilities and access to the staff of the company or its authorised contractors and/or agents.

16. Work should not be carried out in the immediate vicinity of the overhead lines during periods of poor visibility. If this is not reasonably practicable precautions MUST be taken including but not limited to the erection of appropriate barriers to ensure maintenance of the appropriate safety clearances.

17. Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract or of the responsibility for taking every precaution to avoid risk to persons and/or damage to property.
SPECIAL REQUIREMENTS IN RELATION TO BRITISH TELECOMMUNICATIONS PLC

1. In this Special Requirement the following terms shall have the meanings assigned to them:-
   
   (a) ‘company’ means British Telecommunications PLC
   
   (b) ‘Company Representative’ means the staff of British Telecommunications PLC or its Authorised Representatives and Agents.
   
   (c) ‘Apparatus’ means all surface or sub-surface equipment and plant including any associated cabling and/or ducting owned, leased or rented by British Telecommunications PLC.

2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of the Apparatus owned, leased or rented by the Company, within the Site with the Company Representative.

3. Where such details show that the works or the movement of plant or equipment may endanger the Apparatus of the Company, the Contractor must give the Company Representative at least 7 day’s written notice of the date on which it is intended to commence such works or the movement of plant and equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and place by the Contractor under the supervision of a Company Representative. The Contractor shall ensure that all Company Apparatus, particularly surface running cabling, is adequately protected from damage and such protective measured shall be approved by the Engineer.

4. The Contractor shall take particular care in relation to the protection of Company Apparatus, where such apparatus includes the presence within the Site of optical figure and/or co-axial cabling. The Contractor should particularly note the damage to such Apparatus is extremely disruptive to the Company network and costly to reinstate. The Contractor shall make every effort to avoid the disturbance of Company Apparatus more than is absolutely necessary for the completion of the Works in accordance with the Contract.

5. When excavating around, moving or backfilling around Company Apparatus, the Company Representative shall be given adequate notice, which shall not be less than 3 days, of the Contractor’s intentions in order that he may supervise the works. The Contractor should note that the normal depth of cover for Company Apparatus and ducts is as follows:
   
   (a) In carriageways 600mm which is to be maintained.
(b) In footways 450mm which is to be maintained.

Where the 600/450mm depth of cover cannot be maintained the Contractor shall carry out the instructions of the Engineer for the protection of Company apparatus and such actions that follow from the Engineer’s instruction shall be supervised by a Company Representative. Where the required depth of cover cannot be maintained over cabling, such cables as are affected shall be enclosed and protected in UPVC duct to be supplied by the Company as directed by the Company Representative.

With regard to excavation in the vicinity of Company apparatus and ducts the Contractor should have particular regard to the possibility of reduced cover and the encountering of such Company Apparatus ducts at depth of cover less than that given at a) and b) above.

6. All excavation adjacent to Company Apparatus is to be carried out by hand until the exact extent and/or location of Company Apparatus is known. Mechanical borers and/or excavators shall not be used within 1.0m of Company Apparatus without the supervisory presence of a Company Representative. To prevent any movement of Company Apparatus during excavation, complete shuttering shall be used as directed by the Engineer if:-

(a) Excavation is deeper than the depth of cover of adjacent Company Apparatus.

(b) Excavation is within 1.0m of Company Apparatus in stable soil.

(c) Excavation is within 5.0m of Company Apparatus in unstable soil.

If for the completion of the Works the Contractor intends using any of the following:-

(i) Pile driving equipment within 10.0m of Company Apparatus;

(ii) Explosives within 20.0m of Company Apparatus;

(iii) Laser equipment within 10.0m of Company Apparatus.

The Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Company apparatus affected may be arranged.

7. All Company manholes, joint box and/or other access points and chambers within the Site shall be kept clear and unobstructed. Access for vehicles, winches cabledrums and/or any further equipment required by the Company for
the maintenance of its apparatus, must be maintained at all reasonable times. The Contractor should particularly note that footway type jointing chambers are not specified for carriageway loadings and will need to be adequately protected and/or demolished and rebuilt under the supervision of a Company Representative where such chambers are likely to be placed at risk, either temporarily or permanently, from the movement of plant and/or equipment on the Site.

8. The covers to Company chambers and/or apparatus shall only be lifted by means of appropriate keys obtained from the Company Representative and under the direct supervision of the Company Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any chamber and/or Apparatus of the Company unless under the supervision of the Company Representative and in any case not before the mandatory gas check has been carried out in the presence of the Company Representative and such checks have shown it to be safe to enter the Chamber and/or Apparatus of the Company. The Company Representative shall be given reasonable access to all Company Apparatus and chambers when required.

9. In the event of any damage whatsoever to Company Apparatus the Contractor shall immediately inform the Engineer and report the occurrence immediately by contacting the Company as follows:- Telephone:- DIAL 100 and ask operator for ‘FREEPHONE 111/Dial before you dig’.

10. Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract or of the responsibility for taking every precaution to avoid risk to persons and/or damage to property.
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SPECIAL REQUIREMENTS IN RELATION TO BRITISH GAS (TRANSCO)

1. In this Special Requirement the following terms shall have the meanings assigned to them:-
   
   (a) 'Company' means Transco.
   
   (b) Company Representative' means the staff of Transco or its Authorised Representatives and Agents.
   
   (c) 'Apparatus' means all surface or sub-surface equipment and plant including any associated Gas pipeline(s), mains and/or service owned, leased or rented by Transco.

2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of the Apparatus, owned, leased or rented by the Company, within the Site with the Company Representative, who can be contacted at the following point: -

   Address: -

   British Gas Transco
   St James Road
   Brentwood
   Essex
   CM14 4LH
   Tel: 01277723223
   Fax: 01277261846

3. Where such details show that the work or the movement of plant or equipment on the Site may endanger the Apparatus of the Company, the Contractor shall give the Company Representative at least 7 days written notice of the date on which it is intended to commence such Works or the movement of plant and equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Company Apparatus, is adequately protected from damage and such protective measures shall be approved by the Engineer.

4. In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of a Company Representative.
5. The Contractor shall carry out all work in connection to the Contract with reference to the requirements of the following publications:-


   (ii) Health and Safety Executive (HSE): HS (G) 47 - ‘Avoiding danger from underground services'.


   (iv) British Gas Cathodic Protection Standard GBE\ECP1.

6. The Contractor shall make every effort to avoid the disturbance of Company Apparatus more than is absolutely necessary for the completion of the Works in accordance with the Contract. The Contractor should particularly note that large Gas transmission pipelines frequently operate at a pressure exceeding 7 bar and pose a considerable hazard to safety if damaged. The Contractor shall also note that smaller Gas distribution pipes may be of yellow plastic, cast iron or other such material and that unless specifically known to the contrary any such services encountered during the course of the Works should be assumed to be Gas pipelines and treated as such in accordance with these Special Requirements until positively identified otherwise and the Engineer so notified in writing.

7. No vehicle plant or machinery shall cross stand operate or travel within 3.0m of any Company Apparatus particularly gas pipelines except as approved by the Company Representative. The Contractor shall agree his methods of working near any Apparatus with the Company Representative and ensure that any Apparatus is adequately protected from damage by the use of wooden sleeper tracks or reinforced concrete rafts at crossing points as appropriate. Temporary fencing of adequate strength shall be erected to regulate the movement of vehicles plant and machinery in the vicinity of Company Apparatus. All such protective measures shall be approved by the Engineer.

8. Where for the purposes of completing the Works in accordance with the Contract it is necessary to lay a new service across an existing Gas pipeline whether above or below a minimum clearance of 0.6m shall be left between the outside of the Gas pipeline and the new service to be installed. Under no circumstances shall a new service be laid parallel above or below a Gas pipeline. Hydraulic or other form of pressure testing of any new services shall
not be permitted within 8.0m of any Gas pipeline unless precautions have been
taken involving the use of pre-installation tested pipeline having a design factor
or 0.3m for a distance of 6.0m either side of the Gas pipeline and/or such
additional precautions including but not limited to sleeving barriers and the like
as the Company Representative may require in consultation with the Engineer.

9. The Contractor shall particularly note that Gas pipelines and other Apparatus of
the Company is usually cathodically protected to Company standard
BGC.PS.ECP1. The Company will require to carry out interaction tests to
determine whether its own system will be adversely affected by any new service
and/or its protective measures. Any work requiring the removal modification
and/or movement of Company Apparatus shall only be carried out by the staff
of the Company and/or its authorised contractors and Agents. In the event that
any cathodic replaced and/or moved for the purposes of the Works the
Contractor shall give not less than seven days written notice of the requirement
to the Company.

10. When excavating or backfilling around Company Apparatus, the Company
Representative shall be given not less than 3 days written notice, of the
Contractor's intentions in order that he may supervise the works.

11. Backfilling shall be in 225mm layers consolidated layer by layer to the
satisfaction of the Engineer. Fill shall be free from flint stones and
carbonaceous material. Where slabbing reduces such depth clean sand filling
shall be use.

12. All excavation adjacent to Company Apparatus is to be carried out by hand until
the exact extent and/or location of Company Apparatus is known. the
Contractor shall note the following:-

(1) Mechanical borers and/or excavators shall not be used within 3.0m of
Company Apparatus.

(2) Head held power assisted tools shall not be used within 1.5m of
Company Apparatus.

without the supervisory presence of a Company Representative. To prevent
any movement of Company Apparatus during excavation, complete shuttering
shall be used as directed by the Engineer if:-

(a) Excavation is deeper than the depth of cover of adjacent Company
Apparatus.

(b) Excavation is within 3.0m of Company Apparatus in stable soil.

(c) Excavation is within 6.0m of Company Apparatus in unstable soil.
13. If for the completion of the Works the Contractor intends using any of the following:

   (i) Pile driving equipment within 15.0m of Company Apparatus or such greater distance as may be necessary to ensure that the MAXIMUM peak particle velocity as measured at the Apparatus does NOT exceed 25 mm per second.

   (ii) Explosives within 400.0m of exposed Apparatus and within 100.0m of buried Apparatus.

   (iii) Hot Works welding and the like within 15.0m of Company Apparatus.

   (iv) Hydraulic testing within 8.0m of company Apparatus.

   (v) Earth Augers within 1.0m of company Apparatus.

The Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Company Apparatus affected may be arranged. The contractor SHALL NOT proceed with the use of any of the above without the written consent of the Company Representative.

14. All Company Apparatus manholes and/or other access points and chambers within the Site shall be kept clear and unobstructed. Access for vehicles, winches and/or any further equipment required by the Company for the maintenance of its Apparatus, must be maintained at all reasonable times and unless otherwise agreed in writing by the Company representative a clearance of 6.0m shall be allowed for such access.

15. The covers to Company Apparatus manholes and/or other access points and chambers shall only be lifted under the direct supervision of the Company Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any chamber and/or Apparatus of the Company unless under the supervision of the Company Representative and in any case not before a gas check as specified by the Company Representative has been carried out in the presence of the Company Representative and such checks have shown it to be safe to enter the Chamber and/or Apparatus of the Company.
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Company. The Company Representative shall be given reasonable access to all Company Apparatus and chambers when required.

16. In the event of any damage whatsoever even of a minor nature to Company Apparatus particularly to Gas pipeline coatings and/or test leads the Contractor shall immediately inform the Engineer and report the occurrence by contacting the Company Representative. The Company Representative will arrange for repairs to be carried out. Where only MINOR repairs are needed to Gas pipeline coatings and/or test leads of which the Company has been previously notified these repairs will be carried out free of charge.

EMERGENCY ACTION

17. The following actions shall be taken by the Contractor in the event of a leak in any Gas pipeline:-

(a) Evacuate all personnel from the vicinity of the pipeline damage or leak.

(b) So far as is possible remove and/or extinguish all sources of ignition for a distance of at least 500m in all directions from the location of the leak. This precaution shall include a ban on the use of any electrical equipment falling within this limit.

(c) Immediately inform the Emergency services (Fire and Police) the Company and the Engineer in that order.

THE EMERGENCY TELEPHONE NUMBER OF THE COMPANY IS:- 0800 111 999

(d) Secure the area from the approach of all employees' traffic and/or the general public.

(e) Render every assistance to the Emergency Services and/or the Company as shall be requested for the purposes of mitigating damage arising from the leak and/or for the purposes of securing public safety.

(f) DO NOT ATTEMPT TO SEAL ANY LEAK OF GAS AT THE POINT OF DAMAGE.

18. Compliance with the above requirements shall not relieve the Contractor of any of the obligations under the Contract or of the responsibility for taking every precaution to avoid risk to persons and/or damage to property.
SPECIAL REQUIREMENTS IN RELATION TO WATER AND SEWERAGE COMPANIES

1. For the purposes of this Special Requirement the following terms shall have the meanings assigned to them:

   (a) 'Company' means:

   ANY COMPANY RESPONSIBLE FOR WATER DISTRIBUTING AND / OR SEWERAGE FUNCTION

   or their successors and assigns.

   (b) 'Company Representative' means the Chief Civil Engineer of the said 'Company' defined at 1(a) of this Special Requirement or other duly Authorised Engineer Representative and/or Agent appointed for the time being to act on behalf of the said 'Company'.

   (c) 'Mains and Sewers' means any surface or sub-surface pipeline or construction together with any associated apparatus appliance access covers manholes shafts and/or chambers thereto owned leased or rented by the said 'Company' defined at 1(a) of this Special Requirement.

2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm the details and location of any Mains and Sewers of the Company with the Company Representative.

3. Where such details show that the Works or the movement of plant or equipment may endanger the Mains and Sewers of the Company, the Contractor shall give the Company Representative at least 7 days written notice of the date on which it is intended to commence such works or the movement of plant and equipment in order that the presence of any Mains and Sewers can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Company Mains and Sewers, are adequately protected from damage and such protective measures shall be approved by the Engineer.

4. In the event of a Company marker being disturbed for reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Company Representative.

5. All excavation adjacent to Company Mains and Sewers, is to be carried out by hand until he exact extent and/or location of Company Mains and Sewers in
known. Mechanical borers and/or excavators shall not be used within 3.0m of Company Mains and Sewers without the presence of the Company Representative. To prevent any movement of Company Mains and Sewers during excavation, complete shuttering shall be used as directed by the Engineer if:-

(a) Excavation is deeper than the depth of cover of adjacent Company Mains and Sewers.

(b) Excavation is within 3.0m of Company Mains and Sewers in stable soil.

(c) Excavation is within 6.0m of Company Mains and Sewers in unstable soil.

If for the completion of the Works the Contractor intends using any of the following:-

(i) Pile driving equipment within 15.0m of Company Mains and Sewers.

(ii) Explosives within 200.0m of Company Mains and Sewers.

(iii) Any hot work such as welding and the like within 6.0m of any Company Mains and Sewers.

The Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Company Mains and Sewers affected may be arranged.

6. Material of any kind whatsoever comprising part of Company Mains and Sewers, manholes, shafts or any other construction shall not be cut away without the prior written approval of the Company Representative.

7. Any temporary roads or access routes within 5.0m of Company Mains and Sewers, shall be provided with a load bearing surface to the satisfaction of the Company Representative.

8. The Contractor or any sub-contractor employed by him shall not stack pile and/or store materials of any kind or erect temporary structures and/or notice boards of any sort within 5.0m of any Company Mains and Sewers.

9. All Company Mains and Sewers, especially manholes, shafts and access points and/or chambers within the Site shall be kept clear and unobstructed. A minimum 3.0m access sufficient for heavy vehicles and/or any further plant and equipment required by the Company for the maintenance of its Mains and Sewers, must be maintained to and around the centre of any Company...
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manholes shafts chambers and or other access points and the Company Representative shall be given access to all Company Mains and Sewers when required at all reasonable times.

10. The covers to Company Mains and Sewers, particularly manholes, shafts and access points and/or chambers shall only be lifted under the Contractor or of any sub-contractor employed by the Contractor shall NOT enter any Company Mains and Sewers manholes shafts access points and/or chambers unless under the supervision of the Company Representative and in any case not before any safety checks required by the Company Representative have been carried out and such checks have shown it to be safe to enter the Company Mains and Sewers.

11. In the event of any damage whatsoever to Company Mains and Sewers the Contractor shall immediately inform the Engineer and report the occurrence immediately by contacting the Company Representative.

12. The Contractor and/or any sub-contractor employed by the Contractor shall take all necessary precautions to ensure that any Company Mains and Sewers are fully protected from any accidental falls or flows of liquids and/or materials, which by themselves or in combination with any existing materials and/or liquids could cause or aggravate pollution create poisonous substances and/or toxic fumes or react with sewer contents to cause toxic substances or fumes and/or could cause harm to persons or property and/or impede any operations of the Company.

13. The Contractor and/or any sub-contractor employed by the Contractor shall not discharge nor cause to be discharged any water or other liquid or tip any condemned or surplus material or waste of any kind whatsoever into Company Mains and Sewers nor abstract extract and/or draw water from any Company Mains and Sewers without the written permission of the Company Representative.

14. The Contractor shall particularly note that the Sewer system can be liable to 'surcharge' in certain circumstances and under these conditions is liable to bursting. Stringent safety precautions as directed by the Company Representative shall be applied in such conditions.

15. The Contractor shall particularly note the following:-

**EMERGENCY ACTION**

The following actions shall be taken by the Contractor in the event of a burst to any of the Company Mains and Sewers:-
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(a) Immediately inform the Emergency Services (Fire and Police) the Authority and the Engineer in that order.

(b) Secure the area from the approach of traffic and/or the general public.

(c) Render every assistance to the Emergency Services and/or the Authority as shall be requested for the purposes of mitigating damage arising from the leak and/or for the purposes of securing public safety.

(d) With regard to land slope and any apparent flow direction of any leaking sewerage or water, construct if possible and as necessary dams bunds with earth and/or board to prevent flows inundating any adjacent properties ditches streams drains manholes or other such water courses and ducts.

16. Compliance with the above requirements shall not relieve the Contractor of any of the obligations under the Contract or of the responsibility for taking every precaution to avoid risk to persons and/or damage to property.
SPECIAL REQUIREMENTS IN RELATION TO TRANSPORT FOR LONDON

1. In this Special Requirement the following terms shall have the meanings assigned to them.
   
   (a) ‘Tfl Representative’ means staff of Transport for London or its Authorised Representatives.
   
   (b) ‘TfL Apparatus’ means all surface or sub-surface equipment including communication cables, ducts, traffic signalling equipment, vehicle detectors, CCTV etc. owned, leased or rented by TfL for the purposes of traffic control and surveillance.

2. Before commencement of any works or actions likely to interfere with TfL Apparatus either as underground plant or on the surface as street furniture, the contractor shall confirm with reasonable notice details of any TfL Apparatus with the TfL Statutory Functions Team.

3. Where such details indicate the works may endanger TfL Apparatus the contractor must give the Statutory Functions Team a minimum of one week’s notice before commencement to consider whether the apparatus location be identified and marked by the Contractor under supervision of a TFL representative.

4. The contractor shall take particular care in relation to the protection of TfL Apparatus where such Apparatus includes the presence within the Site of optical fibre and/or coaxial cabling. The Contractor should note particularly that damage to such apparatus is extremely disruptive and dangerous to traffic control and is costly to reinstate. The Contractor shall make every effort to avoid the disturbance of such apparatus more than is absolutely necessary for the completion of the works in accordance with the contract.

5. All polepits, drawpits, access points and chambers within the site giving access to TfL Apparatus shall be kept clear and unobstructed.

6. In the event of any works which result in damage, failure, disturbance or interruption of the power supply to TfL apparatus including communication cables or traffic signalling equipment then the Fault Control Centre (FCC) on 0207 941 2345 shall be informed immediately.

7. Where the works result in misoperation or failure of traffic signals the local policy shall also be informed.

8. The above requirements do not relieve the contractor of any of his obligations under the contract.
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SPECIAL REQUIREMENTS IN RELATION TO THE ENVIRONMENT AGENCY

1. In these Special Requirements the following terms shall have the meanings assigned to them:


   (b) ‘Agency’s Representative’ means the area engineer and appropriately authorised staff of the Environment Agency or its Authorised Representatives and Agents.

   (c) ‘Watercourse’ means all water resources including ground and/or percolating water together with all rivers streams ditches drains cuts culverts dykes sluices lakes ponds reservoirs docks channels creeks bays estuaries or arms of the sea together with all associated apparatus and appliances administered by ‘The Agency’ in pursuit of or as part of its Statutory functions.

2. The Contractor shall particularly note that The Agency is established by Act of Parliament and that its responsibilities for Watercourse property and premises are the subject of Statutory Law and/or local Bye Law with which the Contractor should familiarise himself.

3. The Contractor shall give the Agency’s Representative at least 14 days written notice before commencing any work or moving heavy plant or equipment over any portion of the Site and shall provide the Agency’s Representative with an outline programme for the Works which shall be kept fully updated throughout the period of the contract. The Contractor shall give the Agency’s Representative NOT LESS than 7 days written notice of any change in programming which affects any Watercourse. The Agency’s Representative can be contacted at the following point:-

   Address:
   Environment Agency
   Thames Region
   Apollo Court
   2 Bishop Square Business Park
   St Albans Road West
   Hatfield AL10 9EX

   Tel: 01707 633000
   (outside office hours this will be diverted to a 24 hour Control Centre)
   Fax:- 01707 632500

4. All operations on in or affecting Watercourses property or premises for which The Agency is responsible shall be carried out in such a manner so as not to
endanger the Watercourses property or premises for which The Agency is responsible and/or any persons entitled to be present.

5. The Agency’s Representative shall at all reasonable times have access to any part of Watercourses property or premises for which The Agency is responsible on the Site.

6. Where for the purposes of completing the Works in accordance with the Contract excavation is required affecting Watercourses property or premises for which The Agency is responsible the Contractor shall give the Agency’s Representative 3 days written notice of such excavation work so that the Agency’s representative may attend upon the Site to supervise the excavation.

7. If the execution of the Works requires access onto or over the floodbank of a Watercourse the Contractor shall provide proper means for such access by way of temporary ramps of suitable gradient surfaces with stone or other material as shall be approved by the Agency’s Representative. ON NO ACCOUNT shall the level of the floodbank crest be reduced without the written permission of the Agency’s Representative and then ONLY under such conditions and restrictions as the Agency’s Representative may require.

8. Where for the purposes of completing the Works in accordance with the Contract there is a requirement for a bank and/or floodbank or part thereof to be temporarily removed such removal shall ONLY be carried out with:-

(a) The written permission of the Agency’s Representative and then ONLY under such conditions and restrictions as the Agency’s Representative may require.

(b) The provision of a suitable alternative flood barrier to be approved by the Agency’s Representative which shall be maintained to the full height of the original floodbank until such times as reinstatement of the original floodbank is completed to the satisfaction of the Agency’s Representative.

9. Throughout the period of the Contract The Contractor MUST take all necessary measures with regard the Watercourse flood plain and/or continued operation of land drainage systems to ensure:-

(a) Flow rates are maintained

(b) The FULL AND PROPER discharge of any flood waters.

10. The Contractor SHALL NOT at any time construct temporary access or haul roads within the floodplain area whose surface level is higher than the existing
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floodplain ground level. Upon the completion of the Works all such Temporary Works shall be removed and the floodplain reinstated to the satisfaction of the Agency’s Representative.

11. The Contractor SHALL NOT at any time store or stockpile on the floodplain area equipment and/or materials that will float or contaminate a Watercourse in the event of the floodplain being inundated.

12. Throughout the period of the Contract the Contractor shall ensure that the structural integrity of any fluvial tidal and/or sea defence Works is fully protected and maintained.

13. The Contractor shall take all necessary measures to secure the protection of all Watercourses including water in underground strata against silting erosion flooding and/or pollution of the water so as to affect adversely the quality of appearance thereof or cause injury or death to animal aquatic or plant life and/or damage to property and land. Such protective measures shall include, but not be limited to, the following:-

(a) All fuel lubricating oil and/or other liquid chemicals stored on the Site shall be located as far as reasonably possible and in any case NOT LESS THAN 10.0m from any Watercourse and such stores shall be sited on impervious bases and surrounded by an effective impervious bund capable of containing the full contents of the store plus 100% and with a sealed drainage system with no discharge to any Watercourse land or groundwater. All such stores shall be kept locked or otherwise secured when not in use and all containers therein must bear clear labels giving full descriptions of the contents. A stock of absorbent material suitable for use on the contents of the store MUST be maintained on the Site.

(b) Any leaking and/or empty oil/fuel/chemical containers shall be removed from the Site immediately.

(c) All equipment using fuel/oil shall be located as far as reasonably possible from any Watercourse and shall be surrounded with oil absorbent material to contain spills and leaks.

(d) The refuelling of machines shall be strictly controlled and confined to a location as far as reasonably possible from any Watercourse.

(e) Providing for silted or discoloured water from the Works and/or the cleaning of vehicles or cement/concrete using plant to be treated or settled in a lagoon prior to discharge into a Watercourse, which discharge shall only take place with the approval of the Agency’s Representative.
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(f) Prevention of the unauthorised abstraction extraction and/or drawing of water for any reason from any Watercourses property or premises for which The Agency is responsible. While protecting any existing abstraction arrangements whether licensed or not together with any domestic abstractions exempt from such licensing requirements. (A list of licensed abstractions is available on a public register).

(g) Ensuring that any ford required to allow plant or vehicles to cross a Watercourse consists of steel plank roadway hardcore road and/or exceptionally a series of concrete pipes sufficient to carry the dry weather flow of the Watercourse topped with concrete slabs at such a level that flood water will overtop the obstruction without causing flooding or other adverse effects and that such construction as is permitted by the Agency is entirely removed from the Watercourse upon the completion of the Works and any access ramps or banks shall be fully reinstated to the satisfaction of the Agency’s Representative.

(h) Ensuring that any plant used in or fording a Watercourse is/does not leak/leaking fuel oil and/or any other fluid.

(i) Ensuring that the use of any concrete mixing plant or ready mix vehicle together with the placing of any wet concrete in or adjacent to any Watercourse is strictly controlled in such a manner that cement contamination of the Watercourse does not occur.

(j) Ensuring that only material free from polluting toxic substances is sued at locations where drainage from new material can directly or indirectly enter any Watercourse.

(k) Where for the purposes of completing the Works in accordance with the Contract any work is required on a sewer of any kind in particular a trunk sewer ensuring that such work is only carried out with the full knowledge of the sewer Agency and then ONLY under such conditions and restrictions as The Agency’s Representative and the sewer authority may impose.

(l) Ensuring that the banks and foreshore of any Watercourse are kept clear of material plant and other items unless actually in use for the purposes of the Works.

(m) Ensuring that materials intended for or arising from the Works together with any other plant and/or equipment are not stored or disposed of:

(i) in the Watercourse;
(ii) placed in such a manner which such items might fall slip or be washed into any Watercourse.

(n) Preventing the spread of the following plant species:

(i) Japanese Knotweed

(ii) Giant Hogweed.

In particular any spoil or other such arisings contaminated with or suspected of being contaminated with the rhizomes and/or roots of these species SHALL NOT be spread to areas currently free of these plants but shall be disposed of as directed by the Agency’s Representative.

(o) In the preparation of his programme for the Works ensuring that the Watercourse is NOT disturbed during:-

(i) the period October to March inclusive where significant populations of salmonoid fish are present.

and/or

(ii) the period April to June inclusive where significant populations of course fish are present.

Unless otherwise specifically agreed in writing by the Agency’s Representative (and then ONLY under such conditions and restrictions as the Agency’s Representative may apply).

(p) Regularly scraping and maintaining free from deposits of slurry or other debris haul roads on the Site and the approaches to any Watercourse. Any arisings shall be disposed of as directed by the Agency’s Representative.

(q) Ensure that surface water drains are not contaminated by any debris or other arising from the Works.

(r) Provide suitable sheeting under any structure over a Watercourse where the structure is to be cleaned by mechanical or chemical means and/or painted in order to prevent material entering the Watercourse.

In the event that notwithstanding the taking of such protective measures any incident occurs which may place the Watercourse including water in underground strata or fish populations at risk the Contractor shall
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IMMEDIATELY inform the Agency’s Representative and the Engineer and shall immediately carry out instructions to abate and remedy the situation.

14. The Contractor shall NOT without the specific written permission of the Agency’s Representative, (and then ONLY under such conditions and restrictions as the Agency’s Representative may require), do any of the following:-

(a) Remove ‘bed’ material for use in the construction of the Works or elsewhere.

(b) Remove from any part of the bottom channel or bed of a Watercourse a deposit accumulated by reason of any dam weir or sluice and SHALL NOT undertake such removal by causing the deposit to be carried away in suspension in the waters.

(c) Remove vegetation other than fallen trees from or adjacent to any Watercourse.

(d) Allow cut vegetation from approved clearance works to enter any Watercourse.

(e) (i) Remove aquatic weeds in the period May to August inclusive;

(ii) spray aquatic weeds.

(f) Use floating plant barges and/or pontoons and the like in any Watercourse.

(g) Display any advertisement or other material, except as specifically required by this Special Requirement, on or above Watercourses property or premises for which The Agency is responsible.

(h) Discharge surface water of any kind in any way into Watercourse property or premises for which The Agency is responsible.

(i) Construct any Temporary Works in the Watercourse and/or temporarily divert obstruct and/or pipe any Watercourse and/or obstruct any floodplain by spoil heaps or by any other means except where and to the extent that approval has been specially given and/or previously obtained.

(j) Close any navigable Watercourse to waterborne craft or traffic without giving the Agency’s Representative at least 28 days written notice. (The granting of permission for such a closure MUST NOT be presumed).
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(k) Use explosives in or adjacent to any Watercourse property or premises for which the Agency is responsible (permission for such use by The Agency will ONLY be granted IN THE MOST EXCEPTIONAL CIRCUMSTANCES).

15. Where for the purposes of completing the Works in accordance with the Contract any work is required above or in the Watercourse the Contractor shall, except where otherwise specified in the Contract or agreed in writing by the Agency’s Representative:-

(a) provide and maintain a minimum height clearance as shall be specified in writing by the Agency’s Representative above the water surface of the Watercourse or highest expected water surface where this is variable.

(b) Stockpile keep clean and replace on completion of the Works any ‘bed’ material necessarily removed from the Watercourse in the course of the construction of the Works.

(c) Submit to the Agency’s Representative written proposals for maintaining at all times the free passage of fish.

THE CONTRACTOR SHOULD PARTICULARLY NOTE WHEN PLANNING ANY WORK IN RELATION TO THE WATERCOURSE THAT THE AGENCY CANNOT GUARANTEE ANY PARTICULAR WATER LEVEL OR DEPTH NOR PREVENT ANY FLUCTUATIONS TO SUCH WATER LEVEL DEPTH OR SPEED OR FLOW IN ANY WATERCOURSE.

16. Where for the completion of the Works in accordance with the Contract work is required on or near the edge of a navigable Watercourse and such work involves projections of any kind into the navigable channel and/or anywhere vertically above the line of its edge the Contractor shall:-

(a) Throughout the course of the Works provide permanent markers on the extremities from the bank of the projection by the placing thereon of warning markers/notices/lights as specified by the Agency’s Representative.

(b) If the projection of the work into the navigable channel exceeds 0.5m the projecting works shall be protected from the impact of passing waterborne craft as specified by the Agency’s Representative.

(c) Provide notice boards of a type size shape colour and with a written warning as specified by the Agency’s Representative shall be sighted on the Watercourse edge as required by the Agency’s Representative.
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17. Any floating plant barge and/or pontoon on the Watercourse for which the Contractor has obtained the permission of the Agency’s Representative shall at all times be properly secured so as not to constitute a hazard to navigation and/or Watercourse management and all reasonable precautions shall be taken by the Contractor to prevent accidental or malicious casing adrift or sinking.

18. If any plant floating plant barge and/or pontoon falls or sinks or is cast adrift in the Watercourse the Contractor shall immediately inform the Agency’s Representative and the Engineer and take immediate steps to make the hazard known to users of the Watercourse. The Contractor shall immediately arrange the salvage/re-securing of the plant floating plant barge and/or pontoon from the Watercourse and until such salvage/re-securing has been completed the Contractor shall provide buoys, and markers and erect warning notices indicating the navigation hazard to Watercourse users to the satisfaction of the Agency’s Representative.

19. The Contractor shall not reduce the width of any Watercourse at any time without the written approval of the Agency’s Representative. In order to consider a request for a temporary reduction in the width of any Watercourse the Agency’s Representative will require fully detailed proposals, which show evidence that the Contractor has made every effort to minimise:-

   (a) The risk of damage to the Watercourse and/or its channel;

   (b) The risk of flooding at all potential flow conditions within the Watercourse;

   (c) The length of time such reduction in Watercourse width will be required.

20. If for the purposes of completing the Works in accordance with the Contract work necessitates the closure and/or the reduction in width of any Watercourse access or footpath the Contractor shall give to The Agency at least 7 days written notice and shall provide to the satisfaction of the Agency’s representative:-

   (a) Any alternative pedestrian access with a minimum width of 2.0m with adequate fencing to each side which shall be smoothly surfaced with 75mm of ashes or such similar material as may be specified by the Agency’s Representative.

   (b) An alternative emergency access for The Agency’s plant and equipment with a minimum width of 3.5m and adequately surfaced for
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the passage of vehicles plant and/or equipment which surface shall have a maximum gradient of 1 in 10.

21. The Contractor shall keep the Watercourses property or premises for which The Agency is responsible free from rubbish. The Contractor shall not leave rubbish on or in Watercourses property or premises for which The Agency is responsible and shall subject to the approval of the Engineer clear away and remove all constructional plant surplus materials and Temporary Works from Watercourses property or premises for which The Agency is responsible as and when these cease to be required for the purposes of the Works.

22. Unless otherwise expressly stated in the contract upon completion of the Works the Contractor shall remove any ford coffer dam and/or other Temporary Works from the Watercourses property or premises for which The Agency is responsible.

23. Except where otherwise provided for in the Contract every part of the bank and/or channel of the Watercourse shall be fully reinstated by the Contractor to the surrounding bank profile topsoiled seeded and/or turfed as appropriate.

24. Except where otherwise provided for in the Contract all property and premises affected by the Works for which The Agency is responsible shall be fully reinstated and all damage to land property or premises for which the Agency is responsible shall be made good by the Contractor to the satisfaction of the Agency’s Representative.

EMERGENCY ACTION

25. The following actions shall be taken by the Contractor in the event of any breach and/or risk of major pollution to a Watercourse or land drainage area or any incidence of fish kill:-

(a) IMMEDIATELY inform The Agency the Engineer and (if required) the Emergency services in that order.

FOR THE AGENCY telephone:- ‘0800 807060’

(b) Secure the area from the approach of traffic and/or the general public.

(c) Render every assistance to The Agency and/or the Emergency Services as shall be requested for the purposes of mitigating damage and/or for the purposes of securing public safety.

(d) With regard to landslope and any apparent flow direction of any water flowing from any breach, construct if possible and as necessary dams.
bunds with earth board and/or sheet to prevent or restrain loss of water from the Watercourse and/or flows inundating any adjacent property.

(e) With regard to landslope and any apparent flow direction of any potentially polluting material or liquid, construct if possible and as necessary dams bunds with earth board and/or sheeting to prevent or restrain such material from reaching the Watercourse and/or flows inundating any adjacent property.

(f) Where not withstanding the above polluting material or liquid has entered a Watercourse construct if possible dams/booms with board and/or sheet materials to retain and limit the extent/effect of such pollutants within the Watercourse pending instructions for full remedial action while permitting the continued flow of water.

26. Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract.
SPECIAL REQUIREMENTS IN RELATION TO BRITISH WATERWAYS

1. In these Special Requirements the following terms shall have the meanings assigned to them:-

(a) ‘The corporation’ means British Waterways, a public corporation sponsored by the Department for Environment, Food & Rural Affairs.

(b) ‘Corporation’s Representative’ means the Regional Engineering Manager of British Waterways or other duly Authorised Representative and/or Agent appointed for the time being to act on his behalf by the Corporation.

(c) ‘Waterway’ means any canal towpath river culvert feeder reservoir watercourse or channel and/or property or premises of any kind administered owned leased or rented by the Corporation in pursuit of or as part of its statutory functions or its business.


2. The Contractor shall particularly note that the Corporation is established by Act of Parliament and that its responsibilities for the Corporation’s Waterway Property and Premises are the subject of Statutory Law and The Corporation’s By-Laws with which the Contractor should familiarise himself.

3. The Contractor shall provide to the Corporation’s Representative:-

(a) at least 14 days written notice before commencing any work or moving heavy plant or equipment over any portion of the Site on or in or affecting The Corporation’s Waterway Property or premises.

(b) an outline programme for the works,

(c) a Method Statement for all Works or operations which may affect the Waterway,

(d) a Safety Plan that addresses the hazards and risks to users of the Waterway, the Corporation’s employees, the environment under the control of The Corporation, the property of The Corporation and the property of legitimate users of The Corporation’s facilities.

(e) details of any Temporary Works affecting the Waterway
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(f) subject to the Employers agreement copies of Environmental Impact Assessments (if any) as may be required by the Employer under the Contract.

4. The Contractor shall present and maintain to the satisfaction of the Corporation’s Representative an up to date General Arrangement drawing of adequate scale and details showing the Permanent and Temporary works as they affect the Waterway towing path property and/or premises of the Corporation.

5. The Contractor shall provide to the Corporation’s Representative NOT LESS than 7 days written notice of any change to the programme, the Method Statement/Safety Plan or details which affect the Waterway. The Corporation’s Representative can be contacted at the following point:-

Address:  
British Waterways  
The Toll House  
Delamere Terrace  
Little Venice  
London W2 6ND

Attn:  Mr M Vensted  
Tel:   (0171) 286 6101

Fax:  (0171) 286 7306

6. The Contractor will be required to obtain the agreement of the Corporation’s Representative for setting out of major elements of the Works on or affecting the Corporation’s Waterway property or premises.

7. All operations affecting the Corporation’s waterway property or premises shall be carried out in such a manner so as not to endanger or damage the Corporation’s property and/or any persons entitled to be present thereon and to avoid (except to the extent agreed in writing) any interference to the free movement of any persons, pedestrians and/or road and waterborne traffic.

8. The Contractor shall not commence any works, particularly excavation piling or dredging work, until adequate provisions to the satisfaction of the Corporation’s Representative have been taken to ensure the stability and security of any Waterway or associated supporting structures whether in the ownership of The Corporation or not and to prevent the escape of water therefrom.
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9. The Contractor shall if required by the Corporation’s Representative provide temporary fencing to the satisfaction of the Corporation’s Representative to provide safety and to prevent trespass or the straying of animal or poultry stock.

10. The Corporation’s Representative shall at all times have reasonable access to The Corporation’s Waterways property or premises on the site.

11. All lights provided by the Contractor shall be so placed or screened so as not to interfere with any signal lights, navigation lights and/or beacons of The Corporation. Any Temporary Works which may interfere with the sighting of such equipment shall not be erected without the written permission of the Corporation’s Representative.

12. The Contractor shall NOT without the specific written permission of the Corporation’s Representative (and then ONLY under such conditions and restrictions as the Corporation’s Representative may require) do any of the following:-

(a) Use or place plant and/or heavy vehicles which may cause damage to the Waterway and which shall particularly include but not be limited to damage to Waterway walls.

(b) ‘Crane’ or otherwise similarly move plant materials and/or vehicles over any waterway.

(c) Use floating plant barges and/or pontoons and the like in any Waterway.

(d) Excavate, tunnel or carry such other underground operations beneath any Waterway.

(e) Display any advertisement or other material, except as specifically required by this Special Requirement, on or above The Corporation’s Waterway property or premises.

(f) Discharge trade or sewage effluent, or arisings, surface water of any kind in any way into or onto The Corporation’s Waterway property or premises.

(g) Abstract extract and/or draw water from The Corporation’s Waterway property or premises

(h) Damage or remove flora, fauna, waterway relics, architectural heritage, industrial heritage, landscaping, towing paths or waterway walls.
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(i) Store fuel or oil, re-fuel service vehicles or plan on or in proximity to the Waterway where there is a risk of pollutants entering the Waterway.

(j) Access the Corporation’s property or premises by any unauthorised route.

13. The Contractor shall take all necessary measures to prevent:-

(a) Siltation of any Waterways.

(b) Damage to the Corporation’s property and premises

(c) Construction debris, materials or arisings of any sort which shall include but not be limited to bricks, timber, containers of any kind, reinforcing bars, polythene or plastic sheeting entering any Waterway.

(d) Contamination of the Waterway with any toxic, or other polluting matter or liquid of any sort which shall include but not be limited to grout, concrete, or silane.

(e) The creation of any hazard to the users of the Waterway which shall include but not be limited to oxy acetylene burning, welding, grit blasting, water jetting or cleansing, spraying or pointing. Alternatively all such works shall cease until the craft or persons are past and clear.

(f) The spread of any prohibited species which shall include but not be limited to Japanese Knotweed or Giant Hogweed.

In the event of any of the above occurring the Contractor shall immediately inform the Corporation’s Representative and the Engineer and shall immediately carry out the instructions of the latter to abate and remedy the situation.

14. Where for the purpose of completing the Works in accordance with the Contract any Temporary Works are required above the Waterway the Contractor shall, except where otherwise specified in the Contract or agreed in writing by The Corporation’s Representative, provide and maintain a minimum height clearance of not less than 4.0m above the water surface of the Waterway or highest expected water surface where this is variable.

The Contractor should particularly note when planning any work in relation to the Waterway that the Corporation cannot guarantee any particular water level or depth not prevent any fluctuations to such water level depth or speed of flow in any Waterway.
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15. If completion of the Works in accordance with the Contract necessitates the closure and/or the reduction in width of the Waterway or towpath the Contractor shall strictly comply and work within the arrangements and limits which shall have been the subject of an Agreement between the Employer and The Corporation for the closure and/or reduction in width of the Waterway or towpath.

16. Where the completion of the Works in accordance with the Contract on or near the edge of the Waterway involves projections of any kind into the navigable channel and/or anywhere vertically above the line of its edge the Contractor shall conform to the Corporation’s Bylaws in respect of signing, marking, lighting and fendering.

17. Any vessel or craft on the Waterway for which the Contractor has obtained the permission of the Corporation’s Representative shall be licensed used and moored in accordance with the Corporation’s Bylaws.

18. If any pant, vessel or craft falls or sinks or is cast adrift in the Waterway the Contractor shall immediately inform the Corporation’s Representative and the Engineer and take immediate steps to make the hazard known to users of the Waterway. The Contractor shall immediately arrange the salvage/re-securing of the plant, vessel or craft from the Waterway and until such salvage/re-securing has been completed the Contractor shall provide buoys and/or markers and erect warning notices indicating the navigation hazard to Waterway users to the satisfaction of the Corporation’s Representative.

19. The Contractor shall keep the Corporation’s Waterways property or premises free from rubbish. The Contractor shall not leave rubbish on or in Waterways property or premises and shall subject to the approval of the Engineer clear away and remove all constructional plant surplus materials and Temporary Works from Waterways property or premises as and when these cease to be required for the purposes of the Works. All damage to The Corporation’s property shall be made good by the Contractor to the satisfaction of the Corporation’s Representative.

EMERGENCY ACTION

20. The following actions shall be taken by the Contractor in the event of any damage in the Waterway its containment and/or supporting structure or banking:-

(a) IMMEDIATELY inform The Corporation the Engineer and (if required) the Emergency services.

(b) Secure the area from the approach of traffic and/or the general public.
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(c) Render every assistance to the Emergency Services and/or The Corporation as shall be requested for the purposes of mitigating water loss and/or damage arising from the incident and/or for the purpose of securing public safety and the stability of other property.

21. Compliance with the above requirements shall not relieve the Contractor or any of his obligations under the Contract.
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SPECIAL REQUIREMENTS IN RELATION TO BARNET LONDON BOROUGH COUNCIL (STREET LIGHTING)

1. The Contractor shall contact the Street Lighting Section of Barnet London Borough Council (Tel 020 8359 4375) not later than seven days before it is proposed to commence works in order to seek assistance in determining the position and depth of their cables.

2. Particular care shall be exercised when working in the vicinity of street lighting cables and any damage, however, small, shall be reported to the Street Lighting Section. No backfilling in the vicinity of the damage shall be permitted until an inspection has been carried out by the Engineer, and any repairs, if necessary have been completed.

3. The above requirements do not relieve the Contractors of any of his obligations under the Contract.
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SPECIAL REQUIREMENTS IN RELATION TO BARNET LONDON BOROUGH COUNCIL - HIGHWAYS AUTHORITY

AUTHORISATION FOR THE USE OF TEMPORARY TRAFFIC CONTROLS ON THE HIGHWAY (ON ROADS OTHER THAN MOTORWAYS)

1. INTRODUCTION

1.1 Each planned installation of temporary traffic signals shall have prior written approval from the Highway Authority.

1.2 The Highway Authority shall be notified by the Contractor or Statutory Undertaker whenever signal control or other control measures are to be installed at roadworks or at Undertaker’s works.

1.3 Notification and Applications for approval of traffic control measures shall be made on the pro-forma described in Appendix 1/17.

1.4 Traffic control shall be operated where works reduce the width of a single carriageway road to less than 5.5 metres.

1.5 Any length of highway subject to traffic control measures which includes a road junction, shall be controlled by temporary traffic signals and shall be subject to site approval from the Highway Authority.

2. REQUIREMENTS

2.1 Traffic control measures shall also comply with all applicable legislation and Department for Transport Guidelines.

2.2 Temporary traffic signals shall work in the vehicle actuation mode unless otherwise authorised in writing by the Highway Authority and unless otherwise directed in site specific requirements.

2.3 The maximum length of any restriction shall usually be 330 metres. Proposals involving greater lengths will require special consideration, and may involve the use of signals in manual or fixed-time mode. In both instances written authorisation by the Highways Authority will be required. Signals must be capable of functioning in vehicle actuation mode.

2.4 For the purposes of this contract, the Application / Notification and Authorisation will be administered on behalf of the Highway Authority by the Chief Engineer (Highways) and as described in Appendix 1/17 of the Specification, until completion of the works.
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2.5 Details of all authorised installations of temporary traffic signals will be passed to the appropriate Chief Constable for use by the Police Authority.

2.6 For emergency works involving the use of temporary traffic signals the Notification shall be handed into or faxed to the appropriate office no later than the same day as the emergency work commences.

2.7 It is mandatory for the applicant to provide details of person(s) responsible for maintenance of the signals. It must be possible to contact a responsible person at all times when the signals are operational.

2.8 All signals and complementary traffic signs shall be removed as soon as the works allow and as particularly directed by the Highway Authority.

2.9 Uses of temporary traffic signals in approved installations shall note that the use of signals ceases to be lawful after the expiry date on the authorisation.

2.10 The Highway Authority reserves the right to refuse or revoke any permission for traffic control where a conflict or works is considered likely to cause unacceptable traffic delays.

2.11 A representative of the Highway Authority shall be allowed access to temporary traffic signal equipment at all times that it is in position upon the Highway.

2.12 Authorisation for the use of temporary traffic signals is conditional in that in the event of council employees being called out in an emergency to attend to the signals then all costs thereof will be met by the applicant described on the application / notification.

2.13 The issuing of an Authorisation for Traffic Control shall not in any way relieve the Contractor Statutory Undertaker or Applicant of his responsibilities and liabilities under the Highways Act 1980, New Roads and Street Works Act 1991, or other Statute.

3. SITE SPECIFIC REQUIREMENTS

Schedule of Highways Requiring Traffic Control by Signals when Trafficked Width is less than 5.5 Metres and of Highways Requiring Authorisation for Traffic Control Methods other than Signals are as described for the Contract in Appendix 1.17 of the Specification.

4. EQUIPMENT

4.1 All equipment used must conform to current specification approved by the Secretary of State for Transport and be in accordance with D.Tp. Departmental Standard TD 21/85 and any amending document. It will be the responsibility of the
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user of the equipment to ensure that it is maintained in full working order. Type approval certificates shall be produced on site upon demand.

4.2 Suitable operating instructions shall be available with every set of temporary traffic signals used on the Highway.

4.3 Defective operating traffic signals shall be repaired or replaced within 2 hours of the person responsible for their maintenance being notified.

4.4 Portable traffic signals shall not be put into use without the necessary traffic signs, traffic cones, cable crossing protectors, etc.

5. OPERATION

5.1 The normal mode of operation shall be VEHICLE ACTUATION and shall be used at all times except when the Highway Authority authorises otherwise in writing.

5.2 Manual or Fixed Time setting as a permanent mode of operation may be adopted where authorised by the Highway Authority.

5.3 Manual operation of the signals may be used to deal with short term problems without reference to the Highway Authority.

5.4 The ALL RED period shall initially be set in accordance with the Department of Transport recommendations but shall be adjusted to suit particular site conditions, subject to the approval of the Highway Authority.

5.5 When the use of the fixed time mode has been authorised then the timing of the signals shall be determined on site so as to give the least delay to road users.

5.6 Where tidal of traffic occurs outside normal working hours and the user of the signals has received authorisation to operate in the fixed time mode, then the user shall arrange for the settings to be adjusted as necessary.

5.7 At all times, whilst personnel are on site, there shall be a site operative who has receive appropriate training and is competent to operate the signals.

5.8 A set of manual STOP/GO sign corporations with appropriate warning signs shall be available at each site for use in the event of failure of the temporary traffic signals. Trained operatives shall be available for allocation to this task.

5.9 The user of the signals shall ensure that the has a safe system of work for the placing, operating and removal of the temporary traffic signals together with the associated signing.
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SPECIAL REQUIREMENTS IN RELATION TO CABLE TV

1. Before commencement of any works or actions likely to cause disruption to underground plant or street side furniture, the contractor shall confirm, with reasonable notice, details of Cable TV plant with the company’s Network Planning Department.

2. Where such details indicate the Contractor’s work or associated works may endanger Cable TV plant the Contractor must give the Network Planning Manager a minimum of one week’s notice before commencement, to enable the supply of markers placed by the Contractor under a Cable TV representative’s supervision.

3. The Contractor shall ensure adequate protection of Cable TV plant at all times.

4. The replacing and repositioning of Cable TV markers are only to be carried out under the supervision of a Cable TV representative, unless the replacement is to the exact position and to its former depth.

5. Disruption of Cable TV plant must only be undertaken with written permission from the Network Planning Department and under supervision of a Cable TV representative.

6. The above requirements do not relieve the Contractor of any of his legal obligations.

7. Details of each cable company are given in Appendix 1.16 of the Specification.
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SPECIAL REQUIREMENTS IN RELATION TO NETWORK RAIL

DEFINITIONS

1. In these Special Requirements the following terms shall have the meanings assigned to them:-

   (a) ‘Network Rail’ means Network Rail PLC which is incorporated as a registered company in England and Wales as No. 2904587.

   (b) ‘Access Permit’ means a written authority that access may be made to railway property and the conditions under which such access is made.

   (c) ‘Competent Person’ means a person who has such practical and theoretical knowledge and actual experience of the work activity that he is able to assess the risks and hazards implicit in the work and the consequences of any change in conditions or circumstances.

   (d) ‘Contractor’ means the person or person firm or company whose tender has been accepted by the Employer and includes the Contractor’s personal representatives successors and permitted assigns together with his sub-contractors and their personal representatives and any other persons under the direction and control of the Contractor whilst on railway property.

   (e) ‘The Engineer’ means the Engineer as defined in the Contract or other Engineer appointed from time to time by the Employer and notified in writing to the Contractor to act as Engineer for the purposes of the Contract in place of the said Engineer.

   (f) ‘Handsignalman’ means a person appointed by Network Rail to control and protect the safety of trains.

   (g) ‘Lookoutman’ means a person who has been trained (and certificated by Network Rail) to warn others of the approach of trains and has experience of working on or about the track. The Lookoutman is identified by a white badge with the word ‘LOOKOUT’.

   (h) ‘On or about the railway’ means all controlled infrastructure including stations.

   (i) ‘Personal Protective Equipment’ means all equipment or clothing designed to be worn or held to protect against a hazard likely to endanger health or safety, or an addition or accessory designed to meet this objective.
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(j) ‘Person in Charge of Work’ (PICOW) means the certificated person responsible for ensuring that a safe system of work is adopted to safeguard personnel on or about the track. The ‘PICOW’ is identified by a blue badge with the words ‘PERSON IC WORK’.

(k) ‘Possession’ means planned safety arrangement which control or prevent the normal movement of rail traffic between defined locations and for a pre-determined period.

(l) ‘Network Rail’s Representative’ means the Zonal Director of ‘Network Rail’ or other duly Authorised Representative Agent and/or Organisation Agent appointed for the time being to act on his behalf by Network Rail.

(m) ‘Service’ means electricity cables, gas pipes, water pipes (including piped sewage), other pipelines or telecommunication plant, irrespective of owner.

(n) ‘Site’ means the lands and other places on under in or through which the Works are to be executed and any other lands or places provided by the Employer for the purposes of the Contract on which the Works are carried out.

(o) ‘Speed Restriction’ means a planned restriction on the speed of rail traffic between defined locations.

(p) ‘The Works’ means the Permanent Works together with any Temporary Works and shall particularly refer to those parts to be executed over upon under in or through railway land or in such close proximity to it that it could in the opinion of Network Rail affect such land or railway traffic and for these particular purposes shall include the acts of inspecting, examining and walking.

METHOD OF CARRYING OUT THE WORKS

2. The Works shall be carried out in a safer manner which avoids risk of harm to railway facilities and traffic and any person entitled to be on railway property and so as to avoid any interference with any such traffic except as previously agreed and to any such persons.

The Contractor shall ensure that any rules regulations or instructions imposed for the protection of rail traffic are strictly observed.

CONTRACTORS SAFETY POLICY
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3. The Contractor shall provide Network Rail with a copy of each of the following documents (including any Contractor’s codes of practice, safety instructions or regulations applicable to the Works) for appraisal not less than 14 days prior to the commencement of the Works:-

   (a) the Contractor’s Health and Safety Case;
   (b) the Contractor’s organisation and arrangements for Health and Safety which must include the arrangements for managing sub-contractors;
   (c) the Contractor’s arrangements for ensuring compliance with all relevant legislation, standards, rules and instructions.
   (d) the Contractor’s Programme for the Works.

EXEMPTIONS

4. Notwithstanding any provisions in statutory health and safety requirements relating to building and construction work that give exemptions to certain work on the operational railway, the Contractor shall comply with all such requirements.

ACCESS TO THE RAILWAY

5. Before any activity is undertaken on the railway, arrangements for safety provisions must be in place to address the activity to be undertaken and the particular hazards of the area in which it will be carried out.

   The safety provisions are set out in Railway Group Standard GO/RT 3278 – ‘Requirements for Access to Network Rail PLC Controlled Infrastructure’. Within these provisions and depending on the nature of the work to be carried out, there may be a requirement for the Contractor to undergo a full medical examination and undertake specific training for personal track safety and be certificated as competent.

SITE FAMILIARISATION

6. The Contractor shall ensure that familiarisation training in the characteristics of the Site is given to all his employees and the employees of any sub-contractor employed by him both before commencement of the Works and at agreed intervals during the progress of the Works.

   The Contractor shall ensure that his employees and the employees of any sub-contractor employed by him undergo additional familiarisation training if the site boundary is altered.
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The Contractor shall brief all visitors to the site, including staff of Network Rail, of the particular health and safety hazards of the site. Records of all such briefings shall be kept by the Contractor for audit purposes.

RISK ASSESSMENTS

7. The Contractor is responsible for arranging suitable and sufficient assessments, to be undertaken by a competent person, of the risks to the health and safety of his personnel and others (including the general public) as a consequence of his work activities. Such risk assessments shall be reviewed or re-assessed when necessary, such as when there is a significant change in work or the environment. Initial and amended copies shall be supplied to Network Rail as appropriate before work commences or continues.

USE OF NETWORK RAIL’S LAND

8. The Contractor shall from time to time be allowed to take possession of so much railway land as may be agreed for the carrying out of the Works (or as laid down in the Contract). Where access to the Site is required by way of railway land the route of such access shall be agreed with Network Rail.

Any other railway infrastructure land which is required for temporary use outside that which is essential for the carrying out of the Works shall be the subject of separate negotiations with Network Rail Property.

The Contractor shall be responsible for ensuring that no person trespasses beyond the agreed limits of the working area or access route and shall if required so to do provide and maintain to the satisfaction of Network Rail temporary fencing of an approved type to prevent trespass on the railway or neighbouring land.

EMERGENCY TELEPHONE NUMBERS

9. The Contractor shall provide 7 days prior to the commencement of the work on Site written notification to Network Rail’s Representative of the names and telephone numbers of competent personnel capable of organising remedial action in the event of an emergency on the Site outside normal working hours or when the Contractor’s employees and the employees of any sub-contractor employed by him are absent from the Site.

METHODS OF CONSTRUCTION

10. The Contractor shall provide for approval a detailed statement (including such calculations drawings and design check certificates as are considered necessary by Network Rail) of the methods proposed for the execution of the
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Works. The statement shall include details of all proposed Temporary Works (including demolition). The method statement shall be submitted in sufficient time to allow for full consideration by Network Rail and for revised proposals to be submitted if necessary.

FENCING OF SITE

11. All persons not involved with the Works shall be kept well clear of the site which shall be fenced or barriered off from such persons to the satisfaction of Network Rail. Where necessary the barriers shall include protection from radiation including that from welding arc or fumes and sparks from oxy-gas flames.

ACCESS AND ACCOMMODATION

12. Network Rail’s Representative shall at all reasonable times have free access to any premises where work is being carried out or materials prepared or manufactured for the Works.

When necessary, serviced accommodation for Network Rail’s Representative shall be provided by the Contractor to the satisfaction of Network Rail.

Network Rail’s Representative where reference to Network Rail is required for the purposes of this contract may be contacted at the following point(s):-

Address:
Network Rail PLC
Network Rail East Anglia (47 CP6)
Outside Party Engineers
Hamilton House
Appold Street
London EC2 2AA

Attn: Mr P Townsend

Tel:- (0171) 295 2064
Fax:- (0171) 295 2119

STATUTORY NOTIFICATION

13. All statutory notices required to be served under the relevant statutory provisions or regulations of the Health and Safety at Work Etc Act 1974, or any statutory re-enactment thereof, in respect of work on the operational railway shall be sent by the Contractor to the Health & Safety Executive with copies to Network Rail.
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WORKING TIME

14. The Contractor shall comply with Network Rail’s policy on working time. (Details of these requirements may be obtained from the Engineer).

KNOWLEDGE AND UNDERSTANDING OF ENGLISH

15. The Contractor must have sufficient knowledge of English (both spoken and written) to understand safety information and safety instructions and training (where relevant).

ALCOHOL AND DRUGS

16. The Contractor shall comply with Network Rail’s Policy on Alcohol and Drugs. (Details of these requirements may be obtained from the Engineer).

CLOTHING AND PERSONAL PROTECTIVE EQUIPMENT

17. The Contractor must wear high visibility clothing of a pattern and an approved shade of orange colour where required by Network Rail. The Contractor must ensure that the clothing is worn correctly and kept in a clean condition.

   Personal protective equipment must be used correctly and where there is a possibility of clothing or personal protective equipment being confused with signals, the colours red or green shall not be worn.

REMOVAL OF CONTRACTOR’S EMPLOYEES

18. Network Rail shall be at liberty to object to and require the Contractor to remove from the Site immediately any person employed on his behalf who in the opinion of Network Rail is not in a fit condition to carry out his duties, or is liable to endanger their own health and safety or that of others.

PRESCRIBED REGISTERS AND CERTIFICATES

19. The Contractor shall ensure that all relevant prescribed registered and certificates, including those appertaining to the current Construction Regulations, are available for inspection at all times at a location agreed by Network Rail.

FIRE SAFETY TRAINING

20. The Contractor’s employees and the employees of any sub-contractor employed by him must receive specific instructions related to fire safety and undergo training commensurate with his duties and location, particularly when working in sub-surface railway stations.
FIRE PRECAUTIONS

21. The Contractor shall make arrangements for the protection of the Works and any adjacent railway infrastructure from fire and shall take such additional precautions as Network Rail may require.

The Contractor shall comply with all the following Health and Safety Executive publications:

- Guidance Note CS6 – ‘The Storage and Use of LPG on Construction Sites’
- Handbook HS(G)3 – ‘Highly Flammable Materials on Construction Sites’
- Leaflet IND(G)56P – ‘Flammable Liquids on Construction Sites’

HALONS

22. The use of halons in hand held fire extinguishers and new fixed fire fighting systems based on halons shall not be permitted.

CONFINED SPACES

23. A considerable number of confined spaces exist on or about the railway. In certain circumstances this may be a transient state dependent on usage. The Contractor must ensure his staff are suitably trained to recognise a confined space and a safe system of work must be devised by the Contractor, which must be notified to Network Rail before any work is carried out.

CONTAMINATED LAND

24. Railway land, especially in the area of former large sidings or depots, may be contaminated. Appropriate precautions must be taken when carrying out activities which disturb or alter the existing regime.

ASBESTOS

25. The use of asbestos (in all its various forms) has been extensive throughout the railway industry in previous years; accordingly the Contractor must take all appropriate precautions.

LEAD
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26. Railway bridges, structures and some buildings may have protective and decorative coatings containing substantial quantities of lead; accordingly the Contractor must take all appropriate precautions.

CADMIUM

27. Cadmium may have been used as an anti-corrosion plating on some metal products (nuts, for example) on or about the railway; accordingly the Contractor must take all appropriate precautions.

LEPTOSPIROSIS

28. There may be a risk of Leptospirosis (Weils Disease) when working on the railway as a result of contamination by rats; accordingly the Contractor must take all appropriate precautions.

ANTHRAX

29. The presence of anthrax spores has been detected on or about the railway. The Contractor must be aware of the continuing possibility that anthrax spores may be located on or about the railway and must take all appropriate precautions.

TEMPORARY WORKS

30. The Contractor shall ensure that:

   (a) inspections are carried out of all Temporary Works and all other temporary supporting structures and that such operations are carried out and recorded in like manner to that specified in each of the said requirements that relate to scaffolding; and

   (b) the superintendence provided wherever rapidly increasing or shock loads are being applied to any Temporary Works shall include a person or persons in full view of such Temporary Works with knowledge of the design thereof and able to direct emergency action if this becomes necessary.

NOISE

31. When noisy operations are to be carried out the Contractor must take such measures as may be required by Network Rail to ensure the hazard and nuisance is minimised.
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It is Network Rail policy on Noise Management and Hearing Conservation that
where daily personal noise exposure (LEP,d) is likely to exceed 85 dB(A),
suitable ear protection must be provided.

In addition to the requirements of the Noise at Work regulations 1989 the
Contractor shall ensure so far as is practicable that ALL PERSONS on site
are provided with suitable personal ear protection where daily noise exposure
(LEP,d) is likely to exceed 85 dB(A).

Such ear protection when properly worn should reasonably be expected to
keep the risk of damage to such person’s hearing below that arising from
exposure to ‘the first action level’ or ‘the peak action level’ both as defined in
the Regulations.

In addition to and notwithstanding any maximum noise levels specified in the
Contract the Contractor shall be responsible for keeping noise to a level
acceptable to the Local Authority and for preventing a noise nuisance arising.
The Contractor shall discuss noise levels and methods of working with such
Authority and in such an event shall inform Network Rail of the Local
Authority’s requirement. The Contractor shall not apply for a Consent without
the approval of Network Rail in writing.

When noisy operations are to be carried out at night or on Sunday the
Contractor shall warn all persons likely to be affected by such operations in a
manner approved by the Engineer.

The Contractor shall comply with the general principles laid down in BS 5228
standard Noise Control of Construction and Open Sites or equivalent EC/ISO
Standard.

LEGAL ACTION TO REDUCE NOISE

32. If any approach is made to the Contractor by a Local Authority or Magistrate’s
Court in respect of noise emission from the Site (whether or not such
approach comprises the serving upon the Contractor of a Notice made
pursuant to Section 60 of the Control of Pollution Act 1974 or an Order made
pursuant to Section 59 of that Act or an Order made pursuant to Section 80 or
82 of the Environmental Protection Act 1990 or any subsequent re-enactment
thereof) except to the extent that any immediate action is necessary to comply
with such a Notice or Order prior to the receipt of appropriate instructions by
Network Rail the Contractor shall not change or give any undertaking to
change such programme or methods of construction without consulting the
Engineer and Network Rail.

SCREENS HOARDINGS AND LIGHTS
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33. The Contractor shall provide all necessary appropriate temporary screens, hoardings, guard rails, barriers, fans, protective sheeting, fencing, lighting to ensure the safety and protection of his employees and others and the Works at all times throughout the duration of the Contract.

The location of any such screen, hoarding, shall not affect signal sighting nor obscure places of safety and must not be erected without the prior consent of Network Rail.

All lights shall be so placed or screened so as not to interfere with any signal lights, Driver Only Operation platform monitoring devices, or in any other way affect the vision of train drivers.

BURIED PIPES DUCTS AND CABLES

34. The Contractor’s attention is drawn to the possibility of buried pipes, ducts and cables including high voltage electrical power cables. The Contractor shall take all reasonable precautions to establish the position, existence and location of any buried pipes, ducts and cables which may be present before any excavation or the driving of objects into the ground and shall take all reasonable precautions to avoid damaging buried pipes, ducts and cables when excavating and driving objects into the ground.

Any equipment (Cable Avoiding Tools (CATs) for example) utilised to establish the position of buried pipes, ducts and cables must be authorised before use by Network Rail, in consultation with the Engineer, and be used in accordance with Railway Group Standard GC/RT5200 – ‘Excavations and the identification of Services’.

EXPLOSIVES

35. Explosives (which term does not include railway fog signals – commonly known as detonators) shall NOT be used on or about the railway without the written agreement of Network Rail.

LASERS

36. Equipment incorporating lasers shall not be used by the Contractor without the prior written consent of Network Rail and if such consent is given the Contractor shall comply with any Code of Practice on the lasers produced by Network Rail and relevant British and European Standards published from time to time.

Before any laser may be used on the site the Contractor shall provide a copy of his general safety instructions and specific safety regulations to Network Rail.
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Rail for approval, and no items of work using lasers shall commence without Network Rail’s prior written consent.

WELFARE AND SANITARY FACILITIES

37. The Contractor must make arrangements as necessary for the welfare and sanitary needs of his personnel. The use of existing railway facilities including waiting rooms mess rooms or sanitary facilities will not be permitted unless agreement has been reached by Network Rail and other users as appropriate.

ELECTRICALLY CONDUCTIVE SURVEY EQUIPMENT

38. Electrically conductive survey equipment shall not be used within 2.75 metres of any live overhead equipment, nor shall it be used within 2.0 metres of any rail.

CROSSING THE RAILWAY TRACK

39. The Contractor shall ensure that none of his employees or the employees of any sub-contractor employed by him crosses or conveys Constructional Plant and/or materials across or along any railway track unless special arrangements have been made and specific written approval has been given by Network Rail.

Where public rights of way exist over occupation and or accommodation level crossings and/or bridges, the Contractor shall only use such crossings in the way that they are intended to be used by the public, unless specific written approval has been given by Network Rail.

ONLY IN EXCEPTIONAL CIRCUMSTANCES WILL THE PROVISION OF A TEMPORARY LEVEL CROSSING BE PERMITTED OVER ANY OPERATIONAL RAILWAY TRACK. If Network Rail is prepared to accept the provision of a level crossing required for constructional traffic over any railway track and all temporary public level crossings, time must be allowed to enable the approval of HM Railway Inspectorate to be obtained in addition to the period of notice required by Network Rail for making the necessary arrangements and carrying out the work.

SAFETY PERSONNEL

40. The Railway industry has an established regime of safety supervision when work is undertaken on or about the tracks which may involve Lookoutmen, Handsignalmen and PICOWS (Persons in Charge of Work) amongst others – only competent and certificated personnel may undertake these duties.
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Network Rail may require these and other safety personnel to be appointed
for the control of trains, the protection of the Contractor’s personnel and to
ensure the safety of the rail traffic, other staff, property and others during the
progress of the Works.

EMERGENCY ACTION

41. The Contractor shall prepare an emergency procedure which must include the
method of stopping trains in the event of an incident that could affect the
safety of trains and/or persons and in the case of an electrified line how to
arrange to have the current switched off in the event of an emergency. This
procedure must be accepted in writing by Network Rail before work starts.

The Contractor shall ensure that his personnel are fully conversant with this
procedure and understand it. Auditable checks should be undertaken at
intervals agreed with the Engineer to monitor this understanding.

TIMING OF WORK ON OR ABOUT RAILWAY TRACKS

42. Work shall only commence on or about the tracks when agreed to and
authorised in writing by Network Rail.

Any work which, in the opinion of Network Rail, requires a possession,
isolation and/or speed restriction, shall be carried out on dates and at times
agreed in writing by Network Rail. Such speed restrictions, possessions and
isolations are regulated to minimise delays to railway traffic and may,
therefore, require working outside the Contractor’s normal working hours.

CONFIRMATION OF POSSESSION OF THE RAILWAY LINES

43. If the Contractor’s programme for the Works has been accepted by Network
Rail and consent has been given to the proposed method of carrying out the
Works the Contractor shall in all cases submit written notice to Network Rail
confirming any speed restrictions, possessions or isolation requirements prior
to the period of notice laid down in the Contract in advance of the proposed
commencement of work on or near the railway lines.

RAIL TRAFFIC DURING A POSSESSION OR ISOLATION

44. During a possession and/or isolation the Contractor shall allow for engineers
trains and/or on-track machines to be passed through the work site by prior
arrangement. This will necessitate the temporary clearance of the railway
track and cessation of those activities that could affect their passage or the
safety of personnel on or about the tracks.

CANCELLATION OF SPEED RESTRICTION POSSESSION AND/OR ISOLATION
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45. Network Rail reserves the right to cancel or alter the dates and times of any agreed speed restrictions, possessions and/or isolation at short notice if this proves necessary because of any emergency situation, but in such an event alternative arrangements will be made as soon as the situation permits.

WORKING METHODS NEAR RAILWAY TRACK

46. Unless agreed in writing by Network Rail, no Constructional Plant of any kind shall be used and/or materials placed, stacked and/or handled in such a manner that in the event of mishandling and/or failure such plant and/or materials could fall foul of a vertical plane 3.0 metres from the nearest edge of the nearest rail on which trains may run or on a station platform within 3.0 metres of the platform edge (subject to provisions when working near overhead line equipment).

The Contractor shall submit details (including drawings) of the proposed method of using Constructional Plant and the stacking and/or handling of materials on or about the track when required. In this event such work shall not begin until any required safety measures have been carried out to the satisfaction of Network Rail.

NOTIFICATION OF TOXIC SUBSTANCES ON SITE

47. Toxic substances as defined in the Health and Safety Executive Guidance Note EH40 shall not be brought on or about the railway without the prior written consent of Network Rail.

If any unforeseen toxic substance is encountered or discovered on site during the progress of the Works the Contractor shall firstly secure the working area where these are discovered and then immediately submit the proposed method of operation and the precautions to be taken including handling disposal and/or re-use to Network Rail before continuing any work affected by the discovery.

NOTIFICATION OF ACCIDENTS TO NETWORK RAIL

48. Notwithstanding the statutory requirements of the Health and Safety at Work etc Act 1974, the Contractor shall immediately report to Network Rail all accidents and occurrences causing damage to property or potentially affecting the safe working of the railway and all injuries (other than of a trivial nature) reportable diseases and work linked injuries and any dangerous occurrences as defined in the ‘Reporting of Injuries, Diseases and Dangerous Occurrences regulations 1985’ and as applicable those accidents cited in the ‘Railways (Notice of Accidents) Order 1986’ when these occur on the operational railway.
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Details of all such occurrences shall be recorded on the appropriate form and a copy sent to Network Rail within 24 hours of any such occurrence.

All injuries to the Contractor’s personnel (including minor injuries which the Department of Health and/or the Department of Social security may specify) must be reported when working on the non-operational railway and a copy of the report sent to Network Rail.

Network Rail will advise the Contractor as to those parts of the Site which are on operational and those which are on non-operational railway.

RETURN TO WORK AFTER ILLNESS INJURY OR ACCIDENT

49. Network Rail may require Contractor’s personnel to undergo a medical examination before returning to work after a prolonged illness, serious injury or accident to establish their fitness for work.

ADVERTISEMENTS

50. The Contractor shall not permit any advertisements to be displayed on or above railway property without the prior consent of Network Rail.

SERVICES

51. The degree of protection provided to Services on or about the railway can vary. The Contractor shall not interfere with any Services unless authorised by Network Rail.

Should any unknown or unexpected Service be uncovered on railway property during the Works, the Contractor shall establish ownership and inform Network Rail and the owner of the Service and take appropriate precautions for protection.

The Contractor shall uphold, maintain and keep in working order in its existing location any Service not diverted.

ARRANGEMENTS TO PROVIDE PROTECTION TO RAILWAY EQUIPMENT

52. The Contractor shall provide maintain and remove on completion of the work all necessary protection to prevent damage to the tracks track ballast signal and telecommunication equipment and all other railway equipment during the execution of the work.

ELECTRIFIED RAILWAYS
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53. The Contractor’s attention is drawn to the presence in some areas of electric traction equipment which may be either overhead line equipment above the track and/or third or fourth conductor rail at track level. Either system carries a potentially lethal electric current and proximity to this equipment can cause death or severe injury.

The Contractor shall obtain warning notices to Network Rail’s specification and shall erect these in prominent positions approved by Network Rail. The Contractor shall ensure that his personnel observe such warnings, together with any other instructions as may be included in the current Track Safety Handbook GO/RT 3070 or any later replacement thereof. A poster explaining methods of resuscitation shall be erected and maintained in a prominent position at the place of work.

The Contractor shall fully comply with any requirements of Network Rail as to the earthing and bonding (or electrical segregation) of metal work and foil covered sheet materials.

(1) Overhead Line Equipment (unless working within the protection afforded by isolation arrangements)

Overhead line equipment is charged at high voltage and should be considered live at all times and the Contractor must observe the following precautions:

Work shall not be carried out, cranes or other plant erected, operated and/or dismantled or materials stored within the ‘Prohibited Space’ WHICH IS THAT SPACE WITHIN A RADIUS OF 2.75 METRES OF THE LIVE OVERHEAD EQUIPMENT TOGETHER WITH ANYWHERE VERTICALLY ABOVE THIS SPACE.

The figure of 2.75 metres used in determining the Prohibited Space shall be increased by the length of any tool, equipment and/or material being handled. However, work on the railway track, platforms walkways and the like below overhead equipment is permitted PROVIDED that tools, equipment and/or materials are not at any time raised above head height.

Portable ladders used in the vicinity of the live overhead equipment shall be wood or other nonconducting material and shall not be metal reinforced nor contain any metal. Even ladders without reinforcement can lead to serious electrical shocks if allowed to come close to live overhead equipment and therefore special precautions must be taken by the Contractor to ensure that the ladder cannot slip and encroach into the Prohibited Space.
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Any disturbance of or attachment to any equipment forming part of the electric traction system shall only be carried out by Network Rail.

Long objects, which shall include but not be limited to, pipes, scaffolds, poles, ladders and/or long handled tools or any object of such length that if carried vertically could infringe on the Prohibited Space must be carried horizontally below head height.

Where, in the opinion of Network Rail, alternative safe systems of work are more appropriate, these could include:-

(a) Provision of Protective Screening and/or Platforms between the Work area and the Live Overhead Line Equipment

Erection and removal of screening and/or platforms must be carried out under the protection of isolation arrangements. Where such screening and platforms are erected Network Rail may agree to work being carried out without isolation arrangements.

and

(b) Isolation and Earthing of the Overhead Line Equipment and of Isolation Arrangements

The Overhead Line Equipment will not be made ‘live’ whilst the isolation arrangements are in being.

No work shall begin or personnel be allowed within the Prohibited Space unless or until isolation arrangements have been made.

(2) Third or Fourth Rail Electrification (unless working within the protection afforded by isolation arrangements).

A third or fourth conductor rail and associated electrical equipment shall be considered live at all times.

Work in the vicinity may involve the provision of special protection or alterations to the equipment.

All these shall be provided or carried out by or on behalf of Network Rail. Alternatively Network Rail may isolate a length of third or fourth conductor rail and such other electrical equipment as considered necessary and implement isolation arrangements.
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No work shall commence or personnel allowed to be exposed to risk from the third or fourth conductor rail or associated electrical equipment until isolation arrangements have been made.

STABILITY OF TRACK

54. Excavations near any railway track and/or structure shall not commence until all measures required to maintain the stability of the track and/or structure have been completed and Network Rail have indicated that there is no further objection to the Contractor proceeding with the excavation work.

INTERFERENCE WITH DRAINS/WATERCOURSES

55. Any springs, watercourses or drains which may be interfered with or cut through shall be preserved and pipes and other means be provided so as not to stop or diminish their present flow. Should any drain or spring appear and/or be uncovered, adequate measures shall be provided to convey the water and soil therefrom to a suitable outlet and every reasonable precaution taken to protect the railway infrastructure from harm as a consequence of the work. The Contractor shall not without the prior written approval of Network Rail, make temporary or permanent connections to any mains, drains, pipes, watercourse or other services.

The Contractor shall not discharge any pollutant into any spring, water course, drain or other pipe but if such discharge occurs he shall inform Network Rail and the appropriate authorities by the quickest practical means.

FLOODING OR POLLUTION

56. The Contractor shall take all necessary precautions to the satisfaction of Network Rail to prevent water mud or other substances flooding or polluting the property or equipment of the railway.

ENVIRONMENTAL POLICY

57. The Contractor shall comply with those provisions of the Network Rail Environmental Policy and Management System that are specifically drawn to his attention.

CLEARANCE OF RAILWAY INFRASTRUCTURE LAND

58. The Contractor shall not leave rubbish on railway infrastructure land and property and shall subject to the approval of Network Rail clear away and remove all Contractor’s equipment surplus materials and temporary works as
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and when in the opinion of Network Rail these cease to be required for the Works.

DAMAGE TO RAILWAY INFRASTRUCTURE LAND OR PROPERTY

59. All damage or defects or disturbance caused to railway infrastructure land and property as a result of the Works (whether occurring during the Works themselves or during the Maintenance Period) shall be made good as soon as possible to the satisfaction of Network Rail in consultation with the Engineer by the Contractor.

CONTRACTOR NOT RELIEVED OF OBLIGATIONS

60. Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract.
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SPECIAL REQUIREMENTS IN RELATION TO LONDON UNDERGROUND LIMITED (WORKS ON OR NEAR THE RAILWAY)

1. SCOPE

1.1 This standard states the requirements that shall be satisfied by outside parties wishing to carry out works for their own purposes on or near land belonging to London Underground. The conditions stated in this document may be used by property owners or developers in their own tender and contract documentation.

2. REFERENCES

The text of this document cites other documents that provide information or guidance. These are listed in attachment 1. Reference should be made to the latest editions unless specific editions are cited in the text. Where references are made to past editions unless specific editions are cited in the text. Where references are made to engineering standards documents which are in the course of preparation, existing documents shall be followed until documents have been authorised for use.

3. ABBREVIATIONS

The following abbreviations are used in this document.

LUL:- London Underground Limited

4. DEFINITIONS

The following terms are specific to this document.

LUL Engineer - the person appointed by LUL to deal with matters arising from these special conditions.

LUL Land - any land (including airspace and subsoil), property, building or structure in the freehold or leasehold ownership of or occupied by LUL.

Occupation - the time during which the railway is closed to traffic, the traction current has been turned off and the necessary railway safeguards have been provided to enable work to take place on the railway.

Outside party - any person or company carrying out the Works (as defined below).
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Railway Land - that part of LUL land which is inside the first adequate fence line or structure barring access to the running tracks, or inside the station gates barring access to the platforms.

Railway operating hours - all time other than that defined as occupation.

Works - any demolition, excavation, construction or maintenance work, including all associated plant scaffolding and other temporary work, carried out by an outside party which is considered by the LUL Engineer to be of concern to LUL.

5. INTRODUCTION

The safe operation of the railway and the safety of the public and other is a paramount consideration. To minimise potential hazards, it is essential that outside parties working on or near the railway comply with the requirements in this standard.

6. SAFETY CONSIDERATIONS

6.1 The works shall be conducted in such a manner as not to endanger or interfere in any way, directly or indirectly, with the railway or the traffic thereon.

6.2 The outside party shall ensure that every precaution is taken when conducting the works to keep the risks of any loss, damage or danger to passengers, staff or the railway to an absolute minimum.

7. REQUIREMENTS

7.1 General

7.1.1 Insofar as anything within these special conditions may conflict or be inconsistent with any other conditions imposed on the outside party, other than in the case of a statutory instrument, these special conditions shall always prevail.

7.1.2 LUL reserved the right to add to or to modify these special conditions as any time without notice in order to comply with any additions or modifications to statutory requirements or to any regulation, requirement or operation of the railway. LUL shall not be liable for any losses, costs or claims arising from any such additions or modifications.

7.1.3 The LUL Engineer or his representative shall at all times be granted free access to the works, or to any premises remote from the site or railway where
work is being conducted or materials prepared or manufactured for any part of the works affecting LUL’s property.

7.1.4 The outside party shall ensure that all staff on his site strictly observe all LUL rules, regulations and requirements in these special conditions or as notified to them by the LUL Engineer.

7.1.5 No smoking shall be allowed on railway land, nor shall alcoholic drink be consumed and the use of drugs, including some medicines, is strictly forbidden whilst working on railway land. It is a criminal offence to be under the influence of alcohol or other drug whilst working on railway land. The outside party is required to demonstrate due diligence in complying with the Transport and Works Act (1992).

7.1.6 The outside party shall immediately stop any items of work on instruction from the LUL Engineer, or other LUL employee in authority, if, in their opinion, the railway is endangered by the works or the outside party is not complying with the provisions of these special conditions or with the times and methods of working approved by LUL.

7.1.7 The outside party shall remove from the site any person either directly or indirectly under his control whom the LUL Engineer considers could endanger the railway because of their actual or potential misconduct, incompetence or negligence in the performance of their duties, or if they fail to conform to the safety requirements imposed by these special conditions.

7.1.8 The outside party shall provide, at his own expense, any personal protective equipment and any training of his staff deemed necessary and specified by the LUL Engineer for the safe execution of the works.

7.1.9 The outside party shall display all LUL safety notices supplied by the LUL Engineer and shall give all necessary instructions to his labour force regarding LUL requirements.

7.1.10 The outside party shall supply and make available, on any part of the works which are upon LUL land, such fire fighting equipment as the LUL Engineer shall require.

7.2 Method of conducting the works

7.2.1 At least six weeks, or such other required period, before the works are scheduled to commence, the outside party shall submit in writing to the LUL Engineer, for his written approval, the following:
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(a) an assessment of the impact or effect of the works upon the railway,
    LUL land and the railway environment;

(b) a programme of the works;

(c) details of the proposed method of carrying out the works;

(d) calculations to show the suitability and adequacy of their proposal,
    where required by the LUL Engineer;

(e) details of plant and materials to be used on the works;

(f) a list of names of key personnel with their telephone numbers,
    including a number manned at all times by means of which they can be
    reached in an emergency;

(g) statements on the outside party’s arrangements for site supervision,
    safety and quality;

(h) details of the manner is which the LUL property is to be protected
    during the works;

(i) such other information as the LUL Engineer shall reasonably require.

7.2.2 After consideration the above proposals the LUL Engineer may required the
outside party to revise them to submit further details method statements for
each stage of the works. The programme for such further details shall be
agreed during approval of the outline method statement. No works shall
commence until the proposals or revised proposals have been approved in
writing by the LUL Engineer.

7.2.3 Where in the opinion of the LUL Engineer unacceptable risks to the railway
would result from the work, the LUL Engineer may determine that all or part of
the works shall be carried out during an occupation.

7.2.4 Where it is considered necessary to either party an inspection of the condition
of the LUL property shall be arranged through the LUL Engineer and a
schedule produced and signed by both parties prior to the commencement of
the works and after their completion (and if necessary at other stages). Condition surveys shall be carried out in accordance with the provisions of
CED-ST-4103.

7.2.5 The outside party shall not interfere with or in any way reduce the
effectiveness of any fence or other structure barring access to railway land
without the prior written approval of the LUL Engineer. If the works
necessitate the alteration, repair, renewal or erection of such a fence or other
structure, the work shall be carried out in accordance with specifications and conditions previously approved in writing by the LUL Engineer.

7.2.6 A protective screen shall, if required by the LUL Engineer, be erected by the outside party along the railway boundary. The details of the screen, the methods and times of erection and dismantling shall be approved in writing by the LUL engineer before any part of the works are commenced.

7.2.7 The outside party shall adopt, provide and maintain to the LUL Engineer’s satisfaction such additional protection or revised working methods as the LUL Engineer considers necessary to avoid unacceptable risk of damage or danger to passengers, staff or the railway.

7.2.8 Explosives shall not be used on or near the railway.

7.3 Scaffolding

Scaffolding shall be erected, used, maintained and dismantled in accordance with the provisions of CED-ST-4112.

7.4 Work upon LUL land

7.4.1 Where an outside party requires to carry out work on LUL land prior agreement shall be obtained from LUL. The minimum requirements are set out in CED-ST-4109.

7.4.2 Generally works on railway land shall be carried out during an occupation. In special circumstances the LUL Engineer may permit works on railway land to be carried out during railway operating hours provided that:

(a) in the LUL Engineer’s opinion the works do not endanger the railway;

(b) horizontal distances to the works are either:

(1) at least 4.0 metres from the nearest rail

or

(2) at stations at least 2.0 metres from any platform edge and do not interfere with passengers or the safe operation of the station.

7.4.3 The outside party shall not interfere with, cover up, obstruct or in any way reduce the effectiveness of any trackside or other LUL property or equipment, unless agreement in writing is first obtained from the LUL Engineer.
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7.4.4 Actions such as hot working or material storage on LUL land will require a licence or permit from LUL. The LUL Engineer will advise the outside party of such specific requirements after the outside parties method statements have been examined.

7.5 Work done during an occupation

7.5.1 Occupation of railway land, where necessary for the safe execution of the works, will be arranged by the LUL Engineer. Such occupations shall be arranged as part of the agreed programme and advance written notice to the LUL Engineer of not less than twelve weeks shall normally be required. The outside party shall not assume that his application will be granted.

7.5.2 Together with any request for occupation of railway land, the outside party shall submit for approval preliminary written details of the work and method statements. The LUL Engineer may decline to arrange an occupation if, in his opinion, the outside party does not propose to make adequate use of that occupation.

7.5.3 The outside party shall be advised on any particular night by the LUL Engineer’s site representative of the exact times that the work shall be permitted to start and finish. During any occupation the outside party shall strictly follow any instruction given by the LUL Engineer’s representative.

7.5.4 Because of the exigencies of the railway, the time available for the occupation is subject to delay, interruption or cancellation. Running of the railway shall take precedence over the works. LUL shall not be liable for any such delay.

7.6 Works over or adjacent to substructures and tunnels

7.6.1 Prior to commencing any excavation or piling, the outside party shall check with the LUL Engineer and all other appropriate authority and obtain written confirmation of the approximate depth and location of their tunnels, structures or equipment.

7.6.2 In addition to the requirements of clause 7.6.1, prior to any work being carried out on any part of a site which is over or adjacent to an LUL substructure or tunnel, the outside party shall prepare and submit to the LUL Engineer for this written approval:

(a) a survey of the site which shall show the relationship of the LUL substructure or tunnel to the ground surface features and the proposed works;

(b) the results of ground investigation and tests;
WORKS INFORMATION - SPECIAL REQUIREMENTS IN RELATION TO STATUTORY BODIES AND LOCAL AUTHORITIES

(c) details of any temporary or permanent changes in loading which may affect the substructure or tunnel;

(d) a statement of the predicted effects of the works and in particular:

(1) changes in stresses;

(2) changes in heave;

(3) settlement;

(4) distortion of the substructure or tunnel;

(e) proposals for the limitation of the effects identified in (d) above;

(f) proposals for the carrying out the inspections for and preparation of schedules of condition of LUL substructures or tunnels;

(g) proposals for monitoring the effects of the works on LUL substructures and tunnels before, during and after construction.

No demolition or construction works shall commence until the LUL Engineer has approved the above proposals.

7.6.3 The LUL Engineer shall not normally approve any proposals which noticeably change the loadings upon any LUL substructure or tunnel.

7.7 Piling

7.7.1 Driven piling shall be no closer than 50.0m from an LUL substructure or tunnel.

7.7.2 Bored piles shall not be constructed within a zone created by a rectangle formed by a 6.0m offset above and below the extremity of the tunnel or other structure and 3.0m offset horizontally from its sides.

7.7.3 Bored piles shall not be under-reamed such that under-reaming encroaches into the exclusion zone defined in 7.7.2 above.

7.7.4 Notwithstanding the above, notices as required under the London Building Acts 1939 or other Statutory Instruments shall where appropriate still be served and the acts shall still apply.

7.8 Crane and tall plant working
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Where the works require the use of cranes and other tall plant the outside party shall comply with the provisions of CED-ST-4111.

7.9 Street works

Outside parties intending to carry out work in the public highway shall, as required under the New Roads and Street Works Act 1991, notify the LUL Engineer of their proposals.

7.10 Movement of heavy vehicles and plant

7.10.1 Outside parties intending to transport heavy loads of the public highway through the area served by the LUL railway, or use cranes and spreader plates in streets directly over railway tunnels, shall obtain the agreement of the LUL Engineer, as required under the road Vehicles (construction and Use) Regulations 1986 and the Motor Vehicles (Authorisation of Special Types) General Order 1979.

7.10.2 Access over LUL’s tunnels and bridges for construction plant and heavy vehicles shall be by such routes as the LUL Engineer may stipulate in writing and be subject to any restrictions of the weight of such vehicles and plant as the LUL Engineer may consider necessary. The outside party shall be responsible for ensuring that all abnormal load journeys use only the routes so approved.

7.11 Reinstatement

LUL land or any associated services disturbed or damaged by the works are to be reinstated to comply with all relevant LUL standards current at the time of reinstatement, to the satisfaction of the LUL Engineer and maintained until all risk of settlement ceases.

7.12 Indemnity and insurance

7.12.1 The outside party shall be responsible for and shall indemnify LUL, its employees and agents from and against all expense, liability, loss and claims whatsoever in respect of death or injury, loss of or damage to property (including property belonging to LUL or for which it is responsible) and any other loss, damage, cost and expense which may arise directly or indirectly out of or in consequence of the outside party’s performance of the works or of the presence of the outside party, their employees or agents or any plant, equipment or material on LUL’s premises whether such injury, loss, damage, cost or expense be caused by negligence or otherwise.
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7.12.2 Throughout the execution of the works, and without prejudice to their liability to indemnify LUL or without limiting their obligations and responsibilities as defined herein, the outside party shall insure against injury, loss or damage to any person or to any property (including property belonging to LUL) which may arise out of or in consequence of the execution or purported execution of the works or the presence on LUL’s property of the outside party, their employees or attends or any plant or equipment or material.

7.12.3 Such insurance shall:

(a) provide indemnity of not less than ten million pounds per incident or such other sum as the LUL Engineer may required having regard t the risks to the railway;

(b) be effected with an insurer and in terms approved by LUL. The terms shall include a provision whereby in the event of any claim in respect of which the outside party would be entitled to receive indemnity under the policy being brought or made against LUL ten the insurer will indemnify LUL against such a claim and any losses, costs, charges and expenses in respect thereof.

7.12.4 The outside party shall wherever required and in any event before commencing the works produce to LUL satisfactory evidence that there is in force the insurance for which the outside party is responsible under these conditions. Thereafter the outside party shall submit evidence no later than the renewal date of such insurance that the insurance has been renewed.

7.12.5 If, during the course of the works, the outside party shall fail on request to produce to LUL satisfactory evidence that there is in force insurance which the outside party is required to effect under these conditions, LUL may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time recover the same from the outside party under the terms of sub-section 7.13.

7.13 Costs

7.13.1 The outside party shall not be charged for work carried out for advice and supervision of streetworks conducted under the terms of the New Roads and Street Works Act 1991, not for advice concerning the movement of heavy vehicles and plant carried out under the terms of the road Vehicles (Construction and Use) Regulations 1986 and the Motor Vehicles (Authorisation of Special Types) General Order 1979.

7.13.2 The outside party shall pay to LUL all other costs, charges, expenses and losses incurred by LUL in connection with, or as a consequence of, the works. This shall include any costs, charges, expenses or losses incurred in
WORKS INFORMATION - SPECIAL REQUIREMENTS IN RELATION TO STATUTORY BODIES AND LOCAL AUTHORITIES

providing protection, carrying out checks, surveys, research, consultations, inspections, monitoring and in making arrangements for and in connection with the works.

7.13.3 Estimates of LUL’s cost can be given but these can only be considered notional because the extent of LUL’s involvement is dependent on the outside party’s method of working and performance. The current hourly or shift rate charges for the various grades of staff may be obtained from the LUL engineer upon request.

7.13.4 Should the outside party cancel or fail to use an occupation, the outside party shall be charged the full costs of LUL attendance unless the LUL staff are redeployed.

7.13.5 In the event of the outside party being prevented or delayed by LUL from entering LUL land for any reason, the outside party shall remain liable for the cost of providing the protection and other LUL staff arranged in connection with the works.

7.14 As built drawings and records

The outside party shall, if so required by the LUL Engineer prepared and provide the LUL Engineer with copies of detailed drawings and calculations (where relevant) of all parts of the finished works that have either a direct or indirect effect upon LUL land. LUL shall have free licence to use these documents as they so wish in connection with their interests.

7.15 Communications

7.15.1 All communications in connection with streetworks (see sub-section 7.9) and the intended passage of an abnormal load on the public highway (see sub-section 7.10) within the LUL network area shall be referred by the outside party to:

Civil Engineer Assets
London Underground Limited
4th Floor, 30 The South Colonnade
London E14 5EU

Tel: 0171 308 2575
Fax: 0171 308 2700

7.15.2 All other communications in connection with these special conditions shall be addressed to:
WORKS INFORMATION - SPECIAL REQUIREMENTS IN RELATION TO STATUTORY BODIES AND LOCAL AUTHORITIES

Mr John Bagley
10a Wood Lane
London W12 7DT

Tel: 0171 918 6141
Fax: 0171 749 6278

References:

Statutory documents:

London Building Act 1939
Motor Vehicles (Authorisation of Special Types) General Order 179
New Roads and Street Works Act 1991
Road Vehicles (Construction and Use) Regulations 1986
Transport and Works Act 1992

LUL departmental documents:

CED-ST-4190 : Temporary use of LUL land by outside parties
CED-ST-4111 : Crane working near the railway – guidance notes
CED-ST-4112 : Scaffolding near the railway – guidance notes
CED-ST-4103 : Condition surveys
The Employer is to review these Key Performance Indicators (KPI) as and when he thinks necessary, after consulting the Contractor. The Employer will consider the Contractor’s performance as measured by these KPI’s when allocating Package Orders and in deciding whether to offer a contract extension or not.

The Contractor shall report upon all KPI’s at three monthly intervals.

The Contractor is also reminded that the Employer is carrying out his own Customer Satisfaction Surveys for individual Package Orders, the results of which will be used in assessing the Contractor’s performance.

<table>
<thead>
<tr>
<th>KPI Number</th>
<th>Contract Key Performance Indicator</th>
<th>Measurement Method</th>
<th>Min/Max 1st year Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Recycling of excavated material</td>
<td>The quantity of excavated material taken to a recycling facility, divided by the quantity of excavated material disposed off site (excluding U2), expressed as a percentage. Quantities to be taken from delivery tickets from recycling facilities and licensed tips and monthly measurements.</td>
<td>Min. 50%</td>
</tr>
<tr>
<td>2</td>
<td>Purchase of recycled construction materials</td>
<td>The value of recycled construction materials purchased, divided by the value of all construction materials purchased, expressed as a percentage. Quantities to be taken from Contractor’s invoices.</td>
<td>Min. 20%</td>
</tr>
<tr>
<td>3</td>
<td>Timely completion of Package Orders</td>
<td>The number of Package Orders completed on or before the date of Completion, divided by the number of Package Orders issued, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Min. 90%</td>
</tr>
<tr>
<td>4</td>
<td>Defective Work</td>
<td>The number of Defects notified to the Contractor for every £100,000 of work completed by the Contractor, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Min. 90%</td>
</tr>
</tbody>
</table>
## KEY PERFORMANCE INDICATOR SCHEDULE

<table>
<thead>
<tr>
<th></th>
<th>Performance Indicator</th>
<th>Description</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Correction of Defective Work</td>
<td>The number of Defects notified to the Contractor that are corrected within the defect correction period, divided by the total number of Defects notified to the Contractor, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Min. 95%</td>
</tr>
<tr>
<td>6</td>
<td>Contractor’s Final Assessment of Package Order Values</td>
<td>The number of Package Orders for which the final valuation is agreed within three months of Completion, divided by the total number of Package Orders completed within the same time, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Min. 90%</td>
</tr>
<tr>
<td>7</td>
<td>Communications</td>
<td>The number of communications dealt with by the Contractor within the stated period for reply, divided by the number of communications issued, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Min. 95%</td>
</tr>
<tr>
<td>8</td>
<td>Testing</td>
<td>The number of tests passed, divided by the number of tests carried out in accordance with the contract’s requirements, expressed as a percentage. Quantities to be taken from the testing records.</td>
<td>Min. 90%</td>
</tr>
<tr>
<td>9</td>
<td>Site Safety</td>
<td>The number of reportable accidents, as defined by the Health and Safety Executive’s guidelines, associated with the contract for every £100,000 of work completed by the Contractor, expressed as a percentage. Quantities to be taken from Contractor’s records.</td>
<td>Max. 5%</td>
</tr>
<tr>
<td>10</td>
<td>Customer Complaints</td>
<td>The number of valid complaints from residents or road users in relation to the Contractor’s</td>
<td>Max. 5%</td>
</tr>
</tbody>
</table>
### KEY PERFORMANCE INDICATOR SCHEDULE

<table>
<thead>
<tr>
<th></th>
<th>operations for every £100,000 of work completed by the Contractor, expressed as a percentage.</th>
</tr>
</thead>
</table>

Tender Document (v1)
PERFORMANCE LEVEL TABLE
PERFORMANCE LEVEL TABLE

<table>
<thead>
<tr>
<th>KPI Number</th>
<th>Performance Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Each Defect notified to the Contractor</td>
</tr>
<tr>
<td>2</td>
<td>Each Defect notified to the Contractor that is not corrected within the defect correction period</td>
</tr>
<tr>
<td>3</td>
<td>Each communication that the Contractor fails to respond to within the stated period for reply</td>
</tr>
<tr>
<td>4</td>
<td>Each test, carried out in accordance with the contract’s requirements on the Contractor’s workmanship and materials, which show a failure to reach the required standard or specification</td>
</tr>
<tr>
<td>5</td>
<td>Each valid customer complaint that is related to the Contractor’s operations under this contract</td>
</tr>
</tbody>
</table>

The low performance damage shall be calculated by multiplying the number of hours spent by members of the Employer’s staff in work made necessary by the Contractor’s failures, by the hourly rate for the appropriate level of seniority of the staff concerned, as stated in the table below:

- Technician: £36.50
- Engineer: £44.00
- Senior Engineer: £52.00
- Head of Service: £110.00
- Administrative Staff: £31.00
- Senior Administrative Staff: £36.50
SITE INFORMATION

1. The Area

All the highway land and things on and in the land including but without limitation carriageways, hard shoulders, slip roads, access roads, bridges and other highway structure, fences and barriers, drainage systems including outfalls and balancing ponds, grassed areas, hedges and trees, road markings, road traffic signs, road lighting, embankments and cuttings.

2. The Network

The ‘maintenance’ area of the London Borough of Barnet is approximately 8,200 hectares in size and works can be on any site within the area, including roads, footways, cyclepaths, car parks, schools, public buildings, housing estates, parks and miscellaneous areas. This could include works outside of the borough boundary. The approximate length of the public highway network in the Borough, excluding the motorway and the TLRN network, is 675 km. This is made up of 66 km of Principal Roads, 21 km of Classified non-principal roads and 588 km of Unclassified roads.

No works are to be undertaken on the Transport for London Road Network (TLRN) or motorways under this contract. The M1 Motorway is managed by Mouchel Parkman Limited, Tel: 020 8906 9222 or Fax: 020 8906 9444, and the TLRN by WSP, Telephone: 0845 602 4705.

3. Other Works on The Network

A schedule of the main type of work which will be undertaken from time to time by other authorised contractors and bodies is given below:-

(i) Technical Surveys and Specialist Activities

These are small discrete contracts, awarded by the Employer, for such work as specialist inspections and surveys.

(ii) Statutory Undertakers

The installation and maintenance of Statutory Undertakers’ equipment and apparatus.

(iii) Traffic Signal Work
SITE INFORMATION

The installation and maintenance of traffic signals and associated equipment and apparatus, undertaken by Transport for London’s own contractors.
Section Three