

**INVITATION TO TENDER**

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**STATEMENT OF REQUIREMENT**

**Advice to the Office of Rail and Road and Channel Tunnel Safety Authority (CTSA) concerning: How the carriage of alternative fuel vehicles could impact the fire and explosion risk profile for a long underground railway tunnel environment.**

**CPV Code: 79417000**

**Tender Reference: ORR/CT/22-21**

**Purpose of document**

The purpose of this document is to invite proposals for the provision of advice concerning: How the carriage of alternative fuel vehicles could impact the fire and explosion risk profile for a long underground railway tunnel environment.

This document contains the following sections:

1. Introduction to the Office of Rail and Road and the CTSA

2. Statement of Requirement

3. Tender Proposal & Evaluation Criteria

4. Procurement Procedures

**1. Introduction to the Office of Rail and Road (ORR) and the Channel Tunnel Safety Authority (CTSA)**

The Office of Rail and Road is the independent safety and economic regulator of Britain’s railways who also hold National Highways to account for its day-to-day efficiency and performance, running the strategic road network, and for delivering the five-year road investment strategy set by the Department for Transport (DfT).

ORR currently employs approximately 360 personnel and operates from 6 locations nationwide. The majority of personnel are located at ORR’s headquarters, 25 Cabot Square, London.

Our strategic objectives

**1. A safer railway:**  
Enforce the law and ensure that the industry delivers continuous improvement in the health and safety of passengers, the workforce and public, by achieving excellence in health and safety culture, management and risk control.

**2. Better rail customer service:**  
Improve the rail passenger experience in the consumer areas for which we have regulatory responsibility and take prompt and effective action to improve the service that passengers receive where it is required.

**3. Value for money from the railway:**  
Support the delivery of an efficient, high-performing rail service that provides value for money for passengers, freight customers, governments, and taxpayers.

**4. Better Highways:**  
National Highways operates the strategic road network, managing motorways and major roads in England. Our role is to monitor and hold it to account for its performance and delivery, so that its customers enjoy predictable journeys on England’s roads.

The Channel Tunnel and the CTSA

The Channel Tunnel is a50km-long undersea rail tunnel below the Strait of Dover in the English Channel. It is one of the longest underwater tunnels in the world and connects Folkestone in Kent, England to Coquelles in the Hauts-de-France region of France.

The Channel Tunnel is operated by Eurotunnel (a partnership between France Manche and the Channel Tunnel Group) under the terms of a Concession Agreement which was signed by British and French Governments on 14 March 1986 and runs until 2086.

The CTSA was established under The Treaty of Canterbury 1986 to advise and assist the Franco-British Channel Tunnel Intergovernmental Commission (IGC) on all matters concerning safety in the construction and operation of the tunnels and the associated terminal areas.

The CTSA’s work includes ensuring that the safety measures and practices applicable to the Fixed Link comply with the national and international laws in force. The CTSA has a bi-national structure and adopts the principle of joint working between British and French colleagues.

The UK delegation to the CTSA is provided by ORR and consists of colleagues with significant experience and expertise in railway health and safety matters. This specifically includes dedicated fire safety expertise given the unique challenges of safely operating a railway in an underground, subsea tunnel environment.

Supplying ORR

The ORR procurement unit is responsible for purchasing the goods and services necessary for ORR to achieve its role as the economic and health & safety regulator of the rail industry.

The ORR Procurement unit subscribes to the following values:

* to provide a modern, efficient, transparent and responsible procurement service.
* to achieve value for money by balancing quality and cost.
* to ensure contracts are managed effectively and outputs are delivered.
* to ensure that processes have regard for equality and diversity, and
* to ensure that procurement is undertaken with regard to Law and best practice.

For further information on ORR please visit our website: [www.orr.gov.uk](http://www.orr.gov.uk)

Small and Medium Enterprises

ORR considers that this contract may be suitable for economic operators that are small or medium enterprises (SMEs) and voluntary organisations. However, any selection of tenderers will be based on the criteria set out for the procurement, and the contract will be awarded on the basis of the most economically advantageous tender.

Small and Medium Enterprises and Voluntary Organisations:

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| --- | --- | --- | --- | --- | --- |
| **Enterprise Category** | **Headcount** | **Turnover** | **Or** | | **Balance Sheet Total** |
| **Micro** | **<10** | **≤ € 2 million** | | **≤ € 2 million** | |
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| **Small** | **<50** | **≤ € 10 million** | | **≤ € 10 million** | |
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| **Medium** | **<250** | **≤ € 50 million** | | **≤ € 43 million** | |
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| **Large** | **>251** | **> € 50 million** | | **> € 43 million** | |

Please ensure that you indicate how your organisation is categorised on the Form of Tender document which should be submitted along with your proposal.**2. Statement of Requirement**

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| **2.1 Background to the project** |
| **Context**  As mentioned previously, the CTSA is responsible for advising the IGC on all matters concerning safety in the construction and operation of the Channel Tunnel and associated terminal areas.  Changes to transport and environmental policies (such as the [UK Government's plan to end the sale of new petrol and diesel cars by 2030](https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030)) have resulted in an increase in the number of cars and trucks fuelled by alternative power systems (electric, gas etc) and this number is likely to increase further in the coming years.  The CTSA considers that this will result in a significantly different operating environment for the Channel Tunnel to that envisaged at the time of design, construction, and as operated to date, which could impact upon the current fire and explosion risk profile.  The carriage of electric vehicles is already permitted on Eurotunnel’s car shuttle service and low-level quantities of electric car batteries are currently transported through the Channel Tunnel on their truck shuttles.  Given increasing haulier demand on the continent, Eurotunnel has advised the CTSA that it intends to investigate the potential for Liquified Natural Gas (LNG) powered trucks to be transported on truck shuttles through the Channel Tunnel. Currently, these trucks are prohibited from using the Tunnel. Eurotunnel anticipate being able to start this change to their operations in late 2022. |
| **2.2 Project Objectives & Scope** |
| The CTSA is seeking to engage the services of an organisation or body with specific skills in the field of fire science, explosion dynamics and material flammability, particularly in a tunnel environment. The organisation should also be familiar with hazards related to new transportation fuel sources and have access to the latest international research on these topics.  UK CTSA delegation members will be made available to discuss key areas of focus at the initial scoping meeting.  The CTSA wishes to adopt the following phased approach:  **Phase 1**  The CTSA require the appointed organisation / body to review the dutyholder’s current safety file and risk assessments for LNG trucks and provide advice on the following issues:   * **Scale of consequence of a Vapour Cloud explosion**– review the current predictions for the potential scale and consequence of a gas cloud explosion arising from gas release of LNG into the tunnel. This advice should take into account the specific characteristics of the Channel Tunnel, including the ventilation systems which might impact on the vapour cloud. * **Safety Cordon distances –**review and provide an opinion on the suitability and sufficiency of safety cordon distances that have been proposed in order to protect passengers, staff and emergency responders in the event of an emergency incident underground. * **Normal overpressure gas release –** it is understood that LNG trucks release small amounts of flammable gas during operation. Advice is required on the potential for this release of gas to reach an ignition source in the tunnel and the consequences of any gas ignition. * **Multiple LNG trucks in operation -** with higher numbers of LNG trucks likely to use the Channel Tunnel in future years, advice is required on the potential increased risk from multiple LNG trucks being transported on a single truck shuttle in the Channel Tunnel. This could be hazards related to gas released during normal operation, a fire occurring on an HGV being transported (not necessarily caused by the LNG fuel tank) or any other predictable hazards. * **Number of LNG vehicles –** if authorisation is given to allow LNG vehicles through the tunnel, it is expected that the number of LNG vehicles using the tunnel will rise. Advice is required on whether a limit on the number of LNG trucks per shuttle would reduce the level of risk to passengers, staff or emergency responders when considering emergency incidents. * **Any other relevant sections of the safety file or risk assessment**.   **Phase 2**  The CTSA requires the appointed organisation / body to:   * Carry out a desktop review of the latest risk assessments for the carriage of electric vehicles on car shuttles and the transportation of car batteries on truck shuttles, and * Provide an opinion and advice on whether these documents provide suitable and sufficient analysis of the risks from a fire science, explosion dynamics and material flammability perspective, identifying the specific nature of any gaps or omissions that may exist.   **Phase 3**  The CTSA will require the appointed organisation / body to provide advice on the risks associated with alternative vehicle propulsion systems (for vehicles or trains) which may be deployed in the future, and how these could affect the magnitude of the fire and explosion risk profile for a long underground tunnel environment. This is likely to include Hydrogen gas vehicles / trains but could include other fuel sources. **Security** You may be provided with data and access to systems that may be very sensitive. You will need to demonstrate that you can keep this material securely in line with the Government Security Classification (GSC) scheme. All potential suppliers are encouraged to make themselves aware of the classification requirements and identify any potential impacts in their Tender, as the protective marking and applicable protection of any material passed to, or generated by, you during the tender process or pursuant to any Contract awarded to you as a result of this tender process is subject to the GSC scheme.  Nominated individuals who deliver work on this project will be required to hold National Security vetting level Security Clearance (SC). If not currently vetted to this level, you should explain your arrangements for achieving this and the timescales involved. |
| **2.3 Project Outputs, Deliverables and Contract Management** |
| **Outputs and Deliverables**  For each of the three phases, the CTSA would expect the appointed organisation / body to:   * Hold an initial face-to-face scoping meeting with members of the CTSA and emergency services. * Review the current safety file documentation provided. * Identify any gaps or omissions in the safety file, giving regard to the scope outlined above. * Provide a draft report on the key issues. * Provide a final report once CTSA delegates have provided feedback on the draft report. * Attend a final meeting with CTSA representatives (and other authorities involved in the safety assessment) to present their findings. It is considered that two days should be allowed for this element.   **Contract Management Requirements**  The CTSA requires the appointed organisation or body to attend virtual fortnightly update meetings (of up to 1 hour in duration) to update on progress with the work. Specific queries or issues affecting delivery of the work should be raised with the CTSA point of contact at the earliest opportunity. |
| **2.4 Project Timescales** |
| The following project timescales apply to this work:  **Phase 1 -** the CTSA require the draft report to be submitted by 14 October 2022, and subject to review comments, the final report to be submitted by 28 October 2022.  Please note, these dates for phase 1 may be subject to change and are dependent upon project timescales. Details will be shared with the appointed organisation / body at the earliest possible opportunity.  **Phase 2** - the CTSA require the draft report to be submitted by 30 November 2022, and subject to review comments, the final report to be completed by 31 December 2022.  **Phase 3** - the CTSA require the draft report to be submitted by 28 February 2023, and subject to review comments, the final report to be completed by 31 March 2023.  **Extension option**  Subject to mutual agreement between the two parties, the contract let as a result of this tender may be extended to cover additional requirements under phase 1 and 2 for a period of up to a further 3 month(s). |
| **2.5 Payment Schedule** |
| Bidders may propose a single staged payment linked to each of the project phases listed above. |
| **2.6 Further project related information for bidders** |
| **Intellectual Property Rights**  ORR will own the Intellectual Property Rights for all project related documentation and artefacts.  **Transparency requirements**  Please note ORR is required to ensure that any new procurement opportunity above £10,000 (excluding VAT) is published on Contracts Finder, unless the ORR is satisfied it is lawful not to. Once a contract has been awarded as a result of a procurement process, ORR is required to publish details of who won the contract, the contract value and indicate whether the winning supplier is a SME or voluntary sector organisation.  **Confidentiality**  All consultants working on the project may be required to sign a confidentiality agreement and abide by the Cabinet Office’s protective marking guidelines, which ORR uses to protectively mark a proportion of its information. In addition, the consultant may be required to sign additional confidentiality agreements as required by external stakeholders.  **Sub-Contractors**  Contractors may use sub-contractors subject to the following:   * That the Contractor assumes unconditional responsibility for the overall work and its quality; * That individual sub-contractors are clearly identified, with fee rates and grades made explicit to the same level of detail as for the members of the lead consulting team.   Internal relationships between the Contractor and its sub-contractors shall be the entire responsibility of the Contractor. Failure to meet deadlines or to deliver work packages by a subcontractor will be attributed by ORR entirely to the Contractor. Conflict of Interest At the date of submitting the tender and prior to entering into any contract, the tenderer warrants that no conflict of interest exists or is likely to arise in the performance of its obligations under this contract; or  Where any potential, actual or perceived conflicts of interest in respect of this contract exist, tenderers need to outline what mitigation/safeguards would be put in place to mitigate the risk of actual or perceived conflicts arising during the delivery of these services.  The ORR will review the mitigation/safeguards in line with the perceived conflict of interest, to determine what level of risk this poses to them. Therefore, if tenderers cannot or are unwilling to suitably demonstrate that they have suitable safeguards to mitigate any risk then their tender will be deemed non-compliant and may be rejected. |

**3. Tender Response & Evaluation criteria**

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| **3.1 The Tender Response** |
| The proposals for this project should include an outline of how bidders will meet the requirement outlined in section (ii) “Statement of Requirement”. The following information should be included:  **a) Understanding of customer's requirements**   * Demonstrate an understanding of the requirement and overall aims of the project.   **b) Approach to customer's requirements**   * Provide an explanation of the proposed approach and any methodologies bidders will work to; * Details of your assumptions and/or constraints/dependencies made in relation to the project * A project plan to show how outputs and deliverables will be produced within the required timescales, detailing the resources that will be allocated; * An understanding of the risks, and explain how they would be mitigated to ensure delivery. * Compliance with any security requirements outlined in the SOR, including details of accreditation for systems * What support bidders will require from ORR.   **c) Proposed delivery team**   * Key personnel including details of how their key skills, qualifications, experience, professional memberships / professional registrations align to the delivery of the project; and * Project roles and responsibilities. * Confirmation that you have carried out the necessary employment checks (e.g. right to work in the UK). * Some relevant examples of previous work that bidders have carried out (eg. case studies) **d) Pricing**   A fixed fee for the project inclusive of all expense. This should include  a breakdown of the personnel who will be involved with the project, along with associated charge rates and anticipated time inputs that can be reconciled to the fixed fee.  **e) Conflicts of Interest**  Confirm whether you have any potential, actual or perceived conflicts of interest that may by relevant to this requirement and outline what safeguards would be put in place to mitigate the risk of actual or perceived conflicts arising during the delivery of these services. |
| **3.2 Evaluation Criteria** |
| Tenders will be assessed for compliance with procurement and contractual requirements which will include:   * Completeness of the tender information * Completed Declaration Form of Tender and Disclaimer * Tender submitted in accordance with the conditions and instructions for tendering * Tender submitted by the closing date and time * Compliance with contractual arrangements.   Tenders that are not compliant may be disqualified from the process. We reserve the right to clarify any issues regarding a Bidder’s compliance. It will be at ORR's sole discretion whether to include the relevant Bidder’s response in the next stage of the process.  The contract will be awarded to the Bidder(s) submitting the **‘most economically advantageous tender’**. Tenders will be evaluated according to weighted criteria as follows:  **Methodology (20%)**  The proposal should set out the methodology by which the project requirement will be initiated, delivered and concluded. In particular, it must:  a) Explain the methodology and delivery mechanisms to ensure that the requirements of this specification are met in terms of quality;  b) Explain how your organisation will work in partnership with ORR’s project manager to ensure that the requirement is met   1. Explain how your organisation will engage with external stakeholders;   **Delivery (40%)**  The proposal should set out how and when the project requirement will be delivered. In particular, it must:  a) Explain how this work will be delivered to timescale and how milestones will be met, detailing the resources that will be allocated to each stage;  b) Demonstrate an understanding of the risks, and project dependencies and explain how they would be mitigated to ensure project delivery;  c) Explain the resources that will be allocated to delivering the required outcomes/output, and what other resources can be called upon if required.  **Experience (30%)**  The proposal should set out any experience relevant to the project requirement. In particular, it must:  a) Provide CVs of the consultants who will be delivering the project;  b) Highlight the organisation’s relevant experience for this project, submitting examples of similar projects.  **Cost / Value for money (10%)**  A **fixed fee** for delivery of the project requirement (inclusive of all expenses), including a full price breakdown for each stage of the project and details of the day rates that will apply for the lifetime of this project.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Name of consultant | Grade | Role | Day rate | Number of days | Total cost (ex VAT) | |  |  |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |   Please note that consultancy grades should align with the following definitions:   |  |  | | --- | --- | | **Grade** | **Requirement** | | Junior consultant | Demonstrable experience in a wide range of projects in their specialist field. Evidence of client facing experience and support services to wider consultancy projects. | | Consultant | Notable experience and in-depth knowledge of their specialist field. Evidence of a wide range of consultancy projects and client facing experience. Support work in process and organisational design and leading workshops and events. | | Senior Consultant | Substantial experience in their specialist field and in a consultancy/training role. Previous experience in project management and working in a wide range of high quality and relevant projects. Familiarity of the issues/problems facing public sector organisations. | | Principal Consultant | Substantial experience in their specialist field and in a consultancy/training role. Sound knowledge of the public sector and current policy and political issues affecting it. Previous experience in project management on at least three major projects, preferably in the public sector and using the PRINCE2 or equivalent method. | | Managing Consultant | Substantial experience in their specialist field and in a consultancy role. In depth knowledge of the public sector and of current policy and political issues affecting it. Previous experience in project management on at least 5 major projects, preferably in the public sector and using PRINCE2 or equivalent methods. | | Director / Partner | Extensive experience in their specialist field, in which they are nationally or internationally renowned as an expert. Extensive experience of leading or directing major, complex and business critical projects; bringing genuine strategic insight. In depth knowledge of the public sector and of current policy and political issues affecting it. |   **Marking Scheme**  For the Methodology, Delivery and Experience shall be scored using the following:   |  |  | | --- | --- | | Score 0 | Unanswered or totally inadequate response to the requirement. Complete failure to grasp/reflect the core issues | | 1 | Minimal or poor response to meeting the requirement. Limited understanding, misses some aspects | | 3 | Good understanding and interpretation of requirements, providing clear evidence of how the criterion has been met | | 5 | Excellent response fully addressing the requirement and providing significant additional evidence of how the criterion has been met and how value would be added |   For the Price evaluation the following shall apply:  Fixed fee  The lowest fixed fee will be awarded the maximum price score of 100.  All other bidders will get a price score relative to the lowest fee tendered.  The calculation we will use to calculate your score is as follows:  Price Score = Lowest Total Fee x 100  Bidder’s Total Fee  Your score will then be multiplied by the weighting we have applied to this aspect of the price evaluation to provide a weighted score for the fee. |

**4. Procurement procedures**

Tendering Timetable

The timescales for the procurement process are as follows:

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| **Element** | **Timescale** |
| Invitation to tender issued | 03 Aug 22 |
| Deadline for the submission of clarification questions | 19 Aug 22 at 1700hrs |
| Deadline for submission of proposals | 26 Aug 22 at 1000hrs |
| Shortlisted suppliers notified | 02 Sep 22 |
| Interviews and presentations\* | 08 Sep 22 if required |
| Award contract | 12 Sep 22 |
| Project Inception Meeting | w/c 12 Sep 22 |

\*Please ensure that the Project Manager and other key consultants who will be delivering this work are available to give presentations on the interview date

Tendering Instructions and Guidance

**Amendments to ITT document**

Any advice of a modification to the Invitation to Tender will be issued as soon as possible before the Tender submission date and shall be issued as an addendum to, and shall be deemed to constitute part of, the Invitation to Tender. If necessary, ORR shall revise the Tender Date in order to comply with this requirement.

**Clarifications & Queries**

Please note that, for audit purposes, any query in connection with the tender should be submitted via the ORR eTendering portal.The response, as well as the nature of the query, will be notified to all suppliers without disclosing the name of the Supplier who initiated the query.

**Submission Process**

Tenders must be uploaded to the ORR eTendering portal **no later** than the submission date and time shown above. Tenders uploaded after the closing date and time may not be accepted. Bidders have the facility to upload later versions of tenders until the closing date/time.

Please submit the Form of Tender and Disclaimer certificate along with your proposal. If you are already registered on our eTendering portal but have forgotten your login details, please contact the portal administrator.

An evaluation team will evaluate all tenders correctly submitted against the stated evaluation criteria.

By issuing this Invitation to Tender ORR does not undertake to accept the lowest tender, or part or all of any tender. No part of the tender submitted will be returned to the supplier

**Cost & Pricing Information**

Tender costs remain the responsibility of those tendering. This includes any costs or expenses incurred by the supplier in connection with the preparation or delivery or in the evaluation of the tender. All details of the tender, including prices and rates, are to remain valid for acceptance for a period of 90 days from the tender closing date.

Tender prices must be in Sterling.

Once the contract has been awarded, any additional costs incurred which are not reflected in the tender submission will not be accepted for payment.

**References**

References provided as part of the tender may be approached during the tender stage

**Contractual Information**

Following the evaluation of submitted tenders, in accordance with the evaluation criteria stated in this document, a contractor may be selected to perform the services and subsequently issued with an order.

Any contract awarded, as a result of this procurement will be placed with a prime contractor who will take full contractual responsibility for the performance of all obligations under the contract. Any sub-contractors you intend to use to fulfil any aspect of the services must be identified in the tender along with details of their relationship, responsibilities and proposed management arrangements.

The proposal should be submitted in the form of an unconditional offer that is capable of being accepted by the ORR without the need for further negotiation. Any contract arising from this procurement will be based upon ORR’s standard Terms & Conditions (see Form of Agreement attached). You should state in your proposal that you are willing to accept these Terms & Conditions.

The ORR does not expect to negotiate individual terms and expects to contract on the basis of those terms alone. If you do not agree to the Conditions of Contract then your tender may be deselected on that basis alone and not considered further.

The ORR may be prepared to consider non-fundamental changes to the standard terms and conditions in exceptional circumstances. If there are any areas where you feel you are not able to comply with the standard ORR terms and conditions, then details should be submitted as a separate annex to the proposal using the following format:

|  |  |  |  |
| --- | --- | --- | --- |
| ***Clause Number*** | ***Existing Wording*** | ***Proposed Wording*** | ***Rational for amendment*** |
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Any services arising from this ITT will be carried out pursuant to the contract which comprises of:

* ORR Terms & Conditions;
* Service Schedules;
* this Invite to Tender & Statement of Requirement document; and
* the chosen supplier’s successful tender.

## ORR’s Transparency Obligations and the Freedom of Information Act 2000 (the Act)

The ORR is a central Government department and as such complies with the Government’s transparency agenda. As a result, there is a presumption that contract documentation will be made available to the public via electronic means. The ORR will work with the chosen supplier to establish if any information within the contract should be withheld and the reasons for withholding it from publication.

Typically the following information will be published:

* contract price and any incentivisation mechanisms
* performance metrics and management of them
* plans for management of underperformance and its financial impact
* governance arrangements including through supply chains where significant contract value rests with subcontractors
* resource plans
* service improvement plans

Where appropriate to do so information will be updated as required during the life of the contract so it remains current;

In addition, as a public authority, ORR is subject to the provisions of the Freedom of Information Act 2000. All information submitted to a public authority may need to be disclosed by the public authority in response to a request under the Act. ORR may also decide to include certain information in the publication scheme which it maintains under the Act. If a bidder considers that any of the information included in its proposal is commercially sensitive, it should identify it and explain (in broad terms) what harm may result from disclosure if a request is received and the time period applicable to that sensitivity. Bidders should be aware that even where they have indicated that information is commercially sensitive ORR may be required to disclose it under the Act if a request is received. Bidders should also note that the receipt of any material marked “confidential” or equivalent by the public authority should not be taken to mean that the public authority accepts any duty of confidence by virtue of that marking. If a request is received ORR may also be required to disclose details of unsuccessful bids

Please use the following matrix: to list such information:

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| Para. No. | Description | Applicable exemption under FOIA 2000 |
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