
**VOLUME 6 DEPARTMENTAL STANDARDS AND ADVICE NOTES ON CONTRACT
DOCUMENTATION AND SITE SUPERVISION**

SECTION 2 ADVICE NOTES

PART 2

SA 10/05

NEW ROADS AND STREET WORKS ACT 1991 - DIVERSIONARY WORKS

SUMMARY

SA10/05 replaces Interim Advice Note IAN 59/04.

SA10/05 is applicable to England, Scotland and Wales only.

This Advice Note provides guidance on the steps to be taken by the Overseeing Organisation (OO), its agents and contractors under New Roads and Street Works Act 1991 (NRSWA) when diversionary works may be required to apparatus owned by an Undertaker. Diversionary works include the removal, alteration and protection of Undertakers' apparatus. Some advice is also given where NRSWA is not applicable to the necessary diversionary works.

For all diversionary works, the OO and its Agents will instigate and maintain positive dialogue with all Undertakers in order to secure the efficient implementation of the necessary work and the avoidance of unnecessary delay. The OO believes that close liaison and open discussions with all Undertakers as early as possible within a project's lifetime will help achieve a positive outcome for both parties.

This Advice Note has been produced in consultation with the National Joint Utilities Group (NJUG).

INSTRUCTIONS FOR USE

1. Remove existing contents page dated May 2005 and insert new contents page dated November 2005 into binder for Volume 6.
2. Remove IAN 59/04 from Volume 6, Section 2, Part 2 and archive it as appropriate.
3. Insert SA 10/05.
4. Archive this sheet as appropriate.

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THE HIGHWAYS AGENCY



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**WELSH ASSEMBLY GOVERNMENT
LLYWODRAETH CYNULLIAD CYMRU**

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DEFINITIONS

Allowable Cost	Means all reasonable costs less excluded costs of the measures necessary for the purpose of diversionary works as defined in Regulation 2 of the Sharing of Costs of Works Regulations and further outlined in Appendix C4 of the CoP. Excluded costs include Preliminary Planning and Liaison; Determining the General Position of Apparatus; Preparing Initial Sets of Plans and Estimates; Financing Charges; and Work on Undertaker's apparatus placed in the street or road after a Section 85 (England and Wales) or Section 144 (Scotland) notice or counter notice has been served. Such costs shall be borne by the Undertaker.
CoP	Measures Necessary Where Apparatus is Affected by Major Works (Diversionary Works): A Code of Practice 1992.
C1, C2, etc.	All 'C' numbered references in the text of this note refer to Appendix C of the CoP.
C3 budget estimate	Refers to draft schemes and budget estimates as defined in subsection C3 of Appendix C of the CoP.
C4 detailed estimate	Refers to the final detailed scheme and detailed estimates as defined in subsection C4 of Appendix C of the CoP.
NRSWA	New Roads And Street Works Act 1991.
OO	Overseeing Organisation (being a highway authority (England and Wales) or a roads authority (Scotland)).
OO Agent	The Overseeing Organisation's appointed representative. This may include such persons as the Project Manager, the Contractor or the Employer's Agent for individual schemes and Agent Authorities, Managing Agents or Managing Agent Contractors for term maintenance contracts.
PS	The Overseeing Organisation's Project Sponsor (as defined in HM Treasury Procurement Guidance No 1: Essential Requirements for Construction Procurement).
Recovery of Costs Regulations	For England "The Street Works (Recovery of Costs) (England) Regulations 2002"; For Scotland "The Road Works (Recovery of Costs) (Scotland) Regulations 2003".

Definitions

Sharing of Costs of Works Regulations	<p>For England “The Street Works (Sharing of Costs of Works) (England) Regulations 2000”;</p> <p>For Scotland “The Road Works (Sharing of Costs of Works) (Scotland) Regulations 2003”;</p> <p>For Wales “The Street Works (Sharing of Costs of Works) Regulations 1992”.</p>
SoS	<p>The Secretary of State (England), the Minister of the Welsh Assembly Government (Wales) and the Scottish Minister (Scotland).</p>
Undertaker	<p>A body or person entitled by virtue of a statutory right or a street works licence (England and Wales) or road works permission (Scotland) to execute street works (England and Wales) or road works (Scotland) in accordance with NRSWA.</p>

1. PRINCIPLES AND APPLICATION

1.1 Introduction

1.1.1 SA10 is applicable to England, Scotland and Wales only. For Northern Ireland refer to SA11.

1.1.2 This standard advice provides guidance on the steps to be taken by the OO, its agents and contractors under NRSWA when diversionary works may be required to apparatus owned by an Undertaker. Diversionary works include the removal, alteration and protection of Undertakers' apparatus. Some advice is also given where NRSWA is not applicable to the necessary diversionary works.

1.1.3 For all diversionary works, the OO and its Agents will instigate and maintain positive dialogue with all Undertakers in order to secure the efficient implementation of the necessary work and the avoidance of unnecessary delay. The OO believes that close liaison and open discussions with all Undertakers as early as possible within a project's lifetime will help achieve a positive outcome for both parties.

1.1.4 This guidance aims to ensure the optimum co-ordination of works by promoting discussion between the OO and Undertakers of each other's future plans, thereby avoiding unnecessary diversionary works. The OO should therefore keep Undertakers fully informed of its long-term works programme.

1.1.5 This guidance has been produced in consultation with the National Joint Utilities Group (NJUG).

1.2 Application of NRSWA to Diversionary Works

1.2.1 Section 84 (England and Wales) and 143 (Scotland) of NRSWA applies to situations when apparatus in a street or road is or may be affected by certain OO works and empowers the SoS to issue or approve codes of practice giving practical guidance on matters and steps to be taken by the OO and Undertaker to discharge their respective duties. Practical guidance is provided in the CoP particularly with regard to the agreement of necessary measures.

1.2.2 The four major guiding principles which are embodied in the CoP are:

- (a) there is a general presumption against moving apparatus. However, where it is jointly agreed to be necessary to move apparatus, then use of the CoP is recommended;
- (b) total costs should be minimised, consistent with good practice, regardless of who has to meet the costs;
- (c) the OO and all Undertakers involved must work together to obtain the optimum engineering/cost solution rather than seeking to protect only the interest of their own organisations; and

- (d) all parties must acknowledge that it will sometimes be right to accept some detriment to their own interests in the overall interest.

1.2.3 Section 85 (England and Wales) and 144 (Scotland) also enables the SoS to make regulations as to how the Allowable Costs for the necessary works will be borne by the parties. The CoP also gives practical guidance on the sharing of costs.

1.2.4 The following sections outline where NRSWA and the CoP apply and how this may be tested by the PS. The underlying principles of cost sharing are also explained to promote an understanding of what and when the OO should pay and when contributions from Undertakers may be realised.

1.2.5 Where diversionary works may be required, the fundamental question to be asked by the PS is whether the provisions of NRSWA apply and if they do not, what action must be taken instead.

1.2.6 NRSWA applies to pipes, ducts, cables and other apparatus within a street (England and Wales) or road (Scotland) whether below, on or above ground. Streets (England and Wales) incorporating a highway maintainable at the public expense are referred to as **maintainable highways**. Roads (Scotland) which a roads authority has a duty to maintain are referred to as **public roads**.

1.2.7 The diversionary works provisions of NRSWA apply where an Undertaker's apparatus laid in a maintainable highway (or public road in Scotland) is affected by major works. Maintainable highways in England and Wales and public roads in Scotland include but are not limited to carriageways, central reserves, hardshoulders, hardstrips, verges including footways, cycle tracks and bridleways, cuttings and embankment slopes and berms.

1.2.8 The CoP applies to all diversionary works under NRSWA including any off site works. The CoP does not apply where the affected apparatus is not in a maintainable highway (England and Wales) or public road (Scotland). Areas outside the boundary of the maintainable highway or public road are often referred to as Greenfield sites.

1.2.9 The applicability of the diversionary works provisions of NRSWA and its associated regulations must therefore be tested in two ways:

- (a) is the affected apparatus in a **maintainable highway** (England and Wales) or **public road** (Scotland); and
- (b) are the works **major works**, being either **major highway works** (in accordance with section 86(3) of NRSWA (England and Wales)), **major works for road purposes** (in accordance with section 145(3) of NRSWA (Scotland)) or **major bridge works** (in accordance with section 88(2) of NRSWA (England and Wales) and 147(2) of NRSWA (Scotland)).

Both these conditions must be satisfied to apply NRSWA and CoP provisions.

1.2.10 The definition of 'major highway works' given in section 86(3) of NRSWA states:

"In this Part "major highway works" means works of any of the following descriptions executed by the highway authority in relation to a highway which consists of or includes a carriageway –

- (a) reconstruction or widening of the highway,*
- (b) works carried out in exercise of the powers conferred by section 64 of the Highways Act 1980 (dual carriageways and roundabouts),*
- (c) substantial alteration of the level of the highway,*
- (d) provision, alteration of the position or width, or substantial alteration in the level of a carriageway, footway or cycle track in the highway,*
- (e) the construction or removal of a road hump within the meaning of section 90F of the Highways Act 1980,*
- (f) works carried out in exercise of the powers conferred by section 184 of the Highways Act 1980 (vehicle crossings over footways and verges),*
- (g) provision of a cattle-grid in the highway or works ancillary thereto, or*
- (h) tunnelling or boring under the highway."*

1.2.11 The definition of 'major works for road purposes' given in section 145(3) of NRSWA states:

"In this part "major works for road purposes" means works of any of the following descriptions executed by the roads authority in relation to a road which consists of or includes a carriageway –

- (a) reconstruction or widening of the road,*
- (b) substantial alteration of the level of the road,*
- (c) provision, alteration of the position or width, or substantial alteration in the level of a carriageway, footpath or cycle track in the road,*
- (d) the construction or removal of a road hump within the meaning of section 40 of the Roads (Scotland) Act 1984,*
- (e) works carried out in exercise of the powers conferred by section 63 of the Roads (Scotland) Act 1984 (new access over verges and footways),*
- (f) provision of a cattle grid in the road or works ancillary thereto, or*
- (g) tunnelling or boring under the road."*

1.2.12 The definition of 'major bridge works' given in section 88(2) and 147(2) of NRSWA states:

"In this Part "major bridge works" means works for the replacement, reconstruction or substantial alteration of a bridge."

1.2.13 Where the apparatus requiring diversion is not laid in a maintainable highway or public road, but is in a Greenfield site, the appropriate legislation should be applied to the necessary diversionary works. For example, where land has been acquired through Compulsory Purchase Order, the Town and Country Planning Act 1990 or the Town and Country Planning (Scotland) Act 1997 applies. Accordingly, NRSWA is not applicable and payment in full for the necessary diversionary works will be due to the Undertaker upon completion of these works.

Nevertheless, Undertakers generally recognise that the procedures for dealing with diversionary works under NRSWA might usefully be applied to Greenfield sites. Sharing of costs in accordance with the Sharing of Costs of Works Regulations does not apply. Should an Undertaker wish to enhance the capability or increase the capacity of its apparatus, those costs will be borne by the Undertaker.

1.2.14 Appendix 1 contains illustrated examples of when NRSWA and its associated regulations apply to diversionary works for different types of OO schemes.

1.2.15 Whenever an OO scheme may affect an Undertaker's apparatus, the PS must ensure that an audit trail is initiated and maintained from initial inquiries through to final account settlement for any diversionary works. Key stages in agreeing the measures and by whom they are to be taken must be fully documented.

1.3 Sharing of Costs of Works Regulations

1.3.1 Sections 85 (England and Wales) and 144 (Scotland) of NRSWA provide for regulations prescribing the way in which Allowable Costs of diversionary works will be shared between the relevant OO and the Undertaker. These are contained in the Sharing of Costs of Works Regulations.

1.3.2 Under the provisions of NRSWA, the OO may share with the Undertaker the Allowable Costs of diverting or protecting the Undertaker's apparatus required as a result of the OO's major works. This is known as the standard cost sharing principle.

The principle states that the OO may obtain a contribution from the Undertaker of 18% of the Allowable Costs of the necessary measures. For the OO to secure such entitlement:

- (a) the diversionary works must be under NRSWA;
- (b) the OO must be undertaking major works in its capacity as the highway, road or bridge authority and not in any other capacity or on behalf of any third party; and

- (c) the OO must pay 75% of 82% of the detailed estimate for the diversionary works as an advance payment (as a lump sum or by instalments - instalments usually only being applied to works over three months duration).

Sharing of costs is at the volition of the OO and advance payment is therefore optional. Where the OO does not wish to obtain the 18% contribution from the Undertaker, no advance payment is required, a single payment of the total Allowable Costs being made following the completion of the works.

The PS needs to balance the merits of obtaining the 18% contribution from the Undertaker against not making any payments until the works are complete, thereby encouraging prompt submission of the Undertaker's final account in order to receive payment for the diversionary works.

1.3.3 There are certain situations which vary from the standard principle. Such situations include specific cases of changes of carriageway construction, redundant highways/roads and bridges, replacement or modifications of a bridge, special cases of change of depth of cover and works wholly or partly initiated by the OO on behalf of a third party or by the OO other than in its capacity as the highway or road authority. Where there is a right to seek funding from others, the OO should not seek to obtain an 18% contribution from the Undertaker towards the allowable costs of that proportion of the diversionary works.

1.3.4 Where cost sharing applies the Undertaker shall either deduct its contribution from the Allowable Costs payable by the OO or shall pay its contribution to the OO when diversionary works are carried out by an OO contractor.

1.3.5 The Sharing of Costs of Works Regulations also require the Undertaker to give credits for any financial benefit gained from betterment or deferment of renewal of apparatus resulting from the agreed diversionary works.

Betterment includes increasing the capacity or enhancing the duty of the apparatus except where necessary to comply with current sizes and standards. Deferment of renewal relates to the benefit of having aging apparatus replaced with new, thereby deferring the time when the Undertaker would otherwise have to renew it. Further guidance is given in Appendix E – Deferment of the Time for Renewal and Appendix F – Betterment, of the CoP.

The PS should ensure that the Undertaker takes full account of betterment and deferment of renewal, including deductions for the full value of recovered materials (including scrap), which may be realised during the diversionary work. In certain circumstances, the assessment of betterment and deferment of renewal can be complex and the PS and OO Agent should consider seeking specialist advice where appropriate.

1.4 Procurement

1.4.1 The functions of the OO under NRSWA may be performed by agent authorities, consultants, contractors or others acting as agents of the OO. When an agent is used, the OO remains ultimately responsible for all functions of the highway or road authority. In England and Wales, the OO will always retain the functions of ordering and paying for the diversionary works

and the PS should ensure that all Official Works Orders, including those for advance works, are signed by the relevant contractual delegation holder within the OO. In Scotland, these functions may also be performed by the OO Agent.

Where functions are delegated to an OO Agent, the PS should always inform Undertakers of the appointment of the Agent using either:

- (a) **standard letter NRSWA/C1.1** for individual schemes; or
- (b) **standard letter NRSWA/C1.2** for term maintenance contracts.

Only then should the OO Agent send letters on behalf of the OO, always using the OO Agent's own letterhead.

1.4.2 The OO uses various forms of contract to procure works. Each of these forms may impact upon the standard procedure contained in this note. This section addresses the impact of the most commonly used forms of contract on the PS's responsibilities for implementing the procedure.

1.4.3 Engineering and Construction Contract (ECC)

Use of the ECC follows the standard procedure contained in this note.

The Project Manager under an ECC contract may be appointed as agent of the OO. The PS should use **standard letter NRSWA/C1.1** to notify Undertakers of the appointment of the ECC Project Manager as OO Agent.

1.4.4 Early Contractor Involvement Contract (ECI)

Use of the ECI follows the standard procedure contained in this note.

Up to award of the ECI Contract, the Employer's Agent may be appointed as agent of the OO. The PS should use **standard letter NRSWA/C1.1** to notify Undertakers of the appointment of the Employer's Agent as OO Agent.

Following award of the ECI Contract, the role of OO Agent may be transferred to the ECI Contractor. Undertakers must be notified accordingly.

1.4.5 Design and Build (Scotland only)

Design and Build (D&B) Contracts in Scotland deal with diversionary works differently from the forms referred to in 1.4.3 and 1.4.4 above.

The Contractor under the D&B Contract may be appointed as an agent of the OO. The PS should use **standard letter NRSWA/C1.1** to notify Undertakers of the appointment of the D&B Contractor as OO Agent.

The D&B Contractor will programme and co-ordinate the diversionary works and may also be required to place orders and make payments on behalf of the OO.

1.4.6 Design Build Finance and Operate (DBFO)

DBFO contracts may deal with diversionary works differently from the forms referred to in 1.4.3 to 1.4.5 above.

When contracts are tendered details of all liaison with Undertakers up to that point will be made available to the DBFO Companies. This information is provided for information purposes only.

Once the contracts are awarded the SoS may delegate certain functions under NRSWA to the DBFO Company, including those of the highway authority in connection with diversionary works.

Each DBFO contract is unique and it is therefore necessary to make reference to the specific contract documents for clarification of the points made and to understand the functions to be carried out by the OO and the DBFO Company.

1.4.7 Maintenance Contracts

A small proportion of OO maintainable highways or public roads are under the responsibility of DBFO Companies. However, maintenance of the majority of OO maintainable highways or public roads is administered by appointed agents, such as Managing Agents, Agent Authorities or Managing Agent Contractors. Managing Agents and Agent Authorities will administer highway or road maintenance which is undertaken by a Term Maintenance Contractor. Managing Agent Contractors will administer and carry out highway or road maintenance.

Where the Managing Agent, Agent Authority or Managing Agent Contractor acts as an agent of the OO under NRSWA, Undertakers should be notified using **standard letter NRSWA/C1.2**.

Major maintenance and improvement works may be undertaken as individual schemes. In such cases, the procedure to be adopted will depend upon the form of procurement, examples of which are given in paragraphs 1.4.3 to 1.4.5 above.

1.4.8 Regular discussion should take place between the OO Agent and Undertakers throughout the planning and implementation of the OO scheme and any associated diversionary works.

Timescales for the submission of proposals, estimates and other information from Undertakers are stated in the CoP, although these may be extended by agreement. Extensions of time may be considered appropriate for larger or more complex schemes. OO Agents should liaise with Undertakers to establish realistic timescales that will allow prompt submission. In cases of difficulty the PS should seek specialist advice to resolve any problems.

1.4.9 For certain schemes, particularly involving maintenance works, the options for diversionary works may be limited. Particularly where the diversionary works are simple and of low risk, it may be appropriate to omit certain stages of the standard process. For some schemes, the C3 budget estimate stage may be omitted by agreement, with the process moving directly on to the C4 detailed estimate stage. Alternatively, where a C3 budget estimate is deemed sufficient to proceed with the works, it may be that the C4 detailed estimate stage is omitted, although an agreed specification for the works will always be required. Where no C3

budget estimate is provided, the OO **does not pay** for the preparation of the initial C4 detailed estimate.

The OO Agent should therefore always consider the need for each stage of the process and where appropriate discuss the possibility of agreeing to omit any stages with the particular Undertaker.

2. SCHEME IDENTIFICATION AND PRELIMINARY INQUIRIES (C2)

2.1 Scheme Identification

2.1.1 During the Scheme Identification Study, the PS (or the OO Agent, if appointed) should seek from Undertakers details of their apparatus within the specific section of the maintainable highway or public road which is being considered for alteration or improvement without making any commitment to the scheme. Undertakers should provide such information as they have available from records and draw attention to any likely special problems which could arise from the OO's proposed scheme.

2.1.2 When an OO Agent has been appointed and before instructing the OO Agent to send letters on behalf of the OO, the PS shall ensure that Undertakers have been informed of the appointment of the OO Agent using either **standard letter NRSWA/C1.1** or **NRSWA/C1.2** (as 1.4 above).

The PS can then instruct the OO Agent to use **standard letter NRSWA/C2.1** to initiate preliminary inquiries. It is important that the OO Agent makes clear to Undertakers that the inquiry is on behalf of the OO in order that they do not charge for the information. The OO Agent must report the outcome of the inquiries to the PS in accordance with 2.1.6 below.

2.1.3 Undertakers are required to supply information regarding the general position and nature of apparatus from their records and draw attention to any limitations in the quality of this information. If an Undertaker must take steps to determine this information, this would be at the Undertaker's expense. C1.4 of the CoP details the information to be supplied at Preliminary Inquiry stage.

2.1.4 Requested information should normally be received from Undertakers within **10 working days** in accordance with C2 of the CoP. Where an Undertaker indicates that it is unable to provide the necessary information within the 10 days, this period may be reasonably extended by the mutual agreement of the PS and the particular Undertaker.

2.1.5 Undertakers should not charge and PSs must not pay for Preliminary Inquiry information.

2.1.6 The OO Agent shall report back to the PS indicating the date of preliminary inquiries, to whom they were sent, expected response dates and on the information ultimately supplied in response to the inquiries. The OO Agent shall also notify the PS of any likely special problems identified by any Undertaker.

2.1.7 The PS should ensure that all responses to Preliminary Inquiries and associated reports are maintained as part of the audit trail referred to in 1.2.15 above.

3. BUDGET ESTIMATES (C3)

3.1 Scheme Options

3.1.1 If preliminary inquiries were not made at the Scheme Identification Stage, these should be made following the procedures set out in Chapter 2.

3.1.2 During preparation of the Technical Appraisal Report (TAR), the OO Agent should follow up the preliminary inquiries and submit details of the proposed scheme options to the Undertakers using **standard letter NRSWA/C3.1**. The OO Agent should also enclose **pro forma NRSWA/C3.2** for completion by the Undertaker. Separate proposals and budget estimates should be requested for each alternative route identified.

3.1.3 The Undertaker will respond with preliminary details of the effects on their apparatus including an indication of any special requirements involved such as:

- (a) items of equipment on long delivery and the need for advance ordering;
- (b) interruption of supplies to consumers;
- (c) disconnection of supplies to premises which are to be demolished;
- (d) special wayleave agreements associated with the diversion of its apparatus;
- (e) early access to sites for the construction of special structures such as sub-stations, pressure regulation stations etc;
- (f) planning consents and special ministerial consents; and
- (g) any other high-risk critical items or issues.

3.1.4 Budget estimates will also be provided by the Undertaker. Budget estimates should include all costs likely to arise from the necessary measures in consequence of the OO's works as far as can be reasonably assessed at preliminary design stage, taking into account any special requirements and including administration and supervision charges.

The estimates should normally be provided within **20 working days**. Undertakers are required to provide all C3 budget estimates **free of charge**.

3.1.5 Upon receipt of the outline proposals and budget estimates (including completed pro forma NRSWA/C3.2 or similar) from the Undertaker, the OO Agent should report to the PS including:

- (a) confirmation that the submissions conform with the requirements of the CoP; and
- (b) an outline of the proposed discussions with the Undertaker to review the draft scheme and possible modifications thereto in order to ensure that the most economic solution is adopted.

3.1.6 Before preparation of the TAR, the PS and OO Agent should discuss any significant issues in relation to the Undertaker's outline proposals, in particular any high risk critical items or issues and any possible requirement for advance works (see 5.2 below).

3.1.7 The PS should ensure that any key decisions in relation to the proposed scheme and associated diversionary works are fully documented as part of the audit trail referred to in 1.2.15 above.

3.2 Preferred Route

3.2.1 Once the Preferred Route has been announced, and the scheme is likely to start within the following 10 years for major bridge works comprising replacement of the bridge or five years for other major works, the PS is advised that a section 85 (England and Wales) or 144 (Scotland) notice is to be served on all Undertakers known to be operating in the area.

3.2.2 The section 85 or 144 notice should also include all side roads that are not part of the OO network, if the major works are likely to affect Undertakers apparatus located in those streets or roads.

3.2.3 A designated person within the OO will be responsible for serving section 85 or 144 notices using **standard letter NRSWA/C2.2**. The PS shall identify the designated person within the OO and forward to them any details they require in order to serve the notice, including details of the extent of affected maintainable highway or public road and the intended start date for the scheme. Standard letter NRSWA/C2.2 is provided for information purposes only.

The PS should ensure notices are served in good time and that copies are incorporated in the Street Works Register (England and Wales) or Scottish Road Works Register (Scotland) and the National Street Gazetteer (England).

3.2.4 The PS shall refer all queries regarding section 85 or 144 notices to the designated person within the OO responsible for issuing such notices.

The PS should also consider, and if necessary seek advice on, the need for:

- (a) the designation of streets or roads as Protected under the provisions of section 61 (England and Wales) or 120 (Scotland) of NRSWA;
- (b) the placement of Special Engineering Difficulty designation on streets or roads under the provisions of section 63 (England and Wales) or 122 (Scotland) of NRSWA; and
- (c) the placement of Traffic Sensitive designation on streets or roads under the provisions of section 64 (England and Wales) or 123 (Scotland) of NRSWA.

3.2.5 As the scheme evolves, the PS and the OO Agent shall discuss with Undertakers details of the scheme and proposed diversionary works along with possible alterations to both to ensure optimal solutions in terms of time and cost are adopted. Where necessary, the OO Agent should obtain updates from the Undertaker of the budget estimates.

3.2.6 The discussions may also assist the PS in deciding whether or not omission of the C4 stage should be considered. Such decisions will usually be based on the complexity of the diversionary works and confidence in the accuracy of the C3 budget estimate. Any decision to omit the C4 stage will require agreement with the Undertaker. In cases where the C4 stage is omitted, a specification for the necessary measures will be required at the C5 stage (see 5.1.1 below).

3.2.7 The PS should ensure that copies of all C3 budget estimates are retained and that the discussions and decisions made in establishing the basis for the detailed scheme are fully documented. Where the C4 stage is to be omitted, the PS must retain documentation supporting omission of the C4 estimate and the record of agreement by the Undertaker.

4. DETAILED ESTIMATES (C4)

4.1 Detailed Estimates

4.1.1 The importance of the C4 stage should not be underestimated. It establishes in detail the necessary measures and by whom they are to be taken, forming the basis of the Official Works Order. The C4 detailed estimate also provides a benchmark for cost monitoring and final account reconciliation.

4.1.2 When requesting detailed estimates, the OO Agent shall submit to the Undertaker details of the final design with working drawings and an outline programme using **standard letter NRSWA/C4.1**. The OO Agent should enclose **pro forma NRSWA/C4.2** for completion by the Undertaker.

4.1.3 C4 detailed estimates from the Undertaker should include:

- (a) a description of the necessary measures, clearly stating the reasons for the diversion or protection and giving details of the existing apparatus affected, such as lengths and sizes of pipes/cables/ducts, depths of cover and ages;
- (b) a detailed specification of the works required;
- (c) a detailed estimate with itemised costs;
- (d) provisional programmes and timescale for works; and
- (e) all necessary information for any diversionary works to be undertaken by the OO's contractor.

Detailed guidance on what should be in the Undertaker's submission is given in appendix C4 of the CoP.

4.1.4 The PS and OO Agent should note that, for diversionary works under NRSWA, a statutory relationship is imposed upon the OO, as the highway, road or bridge authority, and the Undertaker. Any terms and conditions of contract or engagement accompanying the C4 estimate, which are inconsistent with the provisions of NRSWA, will have no legal force and should be rejected. There will always be a need to agree a specification and programme for the necessary measures.

The use of standard pro forma is intended to avoid correspondence containing terms and conditions that conflict with the provisions of NRSWA.

4.1.5 Undertakers are normally required to provide C4 information within **25 working days** from the date the request is made by the OO Agent. Should this timescale not be achievable, the Undertaker should advise the OO Agent accordingly and an appropriate extension to the standard period should be agreed.

Extensions to the period may be necessary for larger or more complex schemes. However, if measures have been agreed in discussions between the C3 and C4 stages, the likelihood of the 25 day period being achievable increases.

4.1.6 In cases where no C3 budget estimate has been prepared, the initial C4 detailed estimate should be provided free of charge. Otherwise preparation of C4 detailed estimates is an Allowable Cost. Advance payments should not be made for C4 detailed estimates, with payment only being made upon submission of an invoice from the Undertaker once the estimate has been received in full and all clarifications have been resolved.

4.1.7 The OO Agent shall inform the PS when C4 detailed estimates have been provided in full and verify that any charges made are allowable and reasonable (see Chapter 9). Only then should the PS sanction payment of the Undertaker's invoice.

4.1.8 Further discussion between the PS, the OO Agent and the Undertaker may take place to consider modifications to the scheme to assist in programming and reducing costs. Where modifications are made, revised C4 detailed estimates should be obtained by the OO Agent.

4.1.9 The PS should ensure that copies of all C4 detailed estimates, invoices and associated documentation and records of any subsequent discussions are retained as part of the audit trail referred to in 1.2.15 above.

5. SCHEME COMMENCEMENT (C5)

5.1 Notification of Scheme Commencement

5.1.1 The PS or OO Agent should notify all Undertakers of commencement of the OO scheme using **standard letter NRSWA/C5.1**. Each Undertaker should acknowledge receipt of the notification and provide a detailed specification, itemised estimate and programme where these have not been previously submitted.

5.1.2 Unless specifically required any notification must clearly state that the Undertaker should not proceed with advance ordering of materials or commencement of any works.

5.2 Advance Orders

5.2.1 Materials with long delivery periods and potential advance preparatory work necessary to avoid delay to the OO scheme should be identified during consultations with the Undertaker at the C3 and C4 stages. The OO Agent should initiate advance orders for any of the identified measures needing to be taken in advance of the main works.

5.2.2 Orders for advance works and materials should be issued by the PS using the Official Works Order (**pro forma NRSWA/C6.2**) with **standard letter NRSWA/C5.1**. The guidance provided in Chapter 6 in relation to main orders also applies to advance orders.

5.2.3 For certain schemes it may be desirable, within budget constraints, to carry out some or all diversionary works in advance of the scheme commencing in order to minimise the interface between the diversionary works and scheme construction. In such circumstances, the PS and OO Agent should jointly consider the risks of committing to the diversionary works prior to commencement of the OO scheme.

5.2.4 The PS should ensure that scheme commencement notifications to and responses from all Undertakers are maintained. Copies of all advance orders and records justifying the placing of advance orders should also be retained.

6. ISSUE OF MAIN ORDERS (C6)

6.1 Issue of Main Orders to Undertakers

6.1.1 During construction of the scheme, the Undertaker's works may be carried out in one of three ways:

- (a) by the Undertaker, either directly or using subcontractors;
- (b) by the OO scheme contractor; or
- (c) by a combination of the above.

6.1.2 For works to be carried out by the Undertaker, including advance works, the PS should issue an Official Works Order (**pro forma NRSWA/C6.2**) using **standard letter NRSWA/C6.1**. All Official Works Orders must be signed by the relevant contractual delegation holder within the OO and the resultant statutory relationships are between the OO and the Undertaker. Separate Official Works Orders should be issued to each Undertaker. Each Official Works Order should be completed in full with all diversions separately referenced.

6.1.3 The PS should also advise the Undertaker of the name of the OO scheme contractor and the OO scheme contractor's site staff, the name of the OO Agent and the commencing date of the scheme.

6.1.4 Where the provisions of NRSWA apply to the ordered diversionary works (see 1.2.9 above), the PS must decide whether or not advance payment should be made in order to secure an 18% contribution from the Undertaker in accordance with the standard cost sharing principle (see 1.3.2 above).

6.1.5 Where a contribution towards the Allowable Costs of the ordered work is sought from the Undertaker, the PS shall ensure that advance payments are agreed with the Undertaker in accordance with the following principles:

(a) Single Payment

This will typically apply to works of less than three months duration, where the benefits of advance payment by instalments are outweighed by administration costs. A single advance payment of 75% of 82% of the estimated Allowable Costs of the ordered works should be made.

(b) Payments in Instalments

For works extending over three months, payment may, by mutual agreement between the OO and Undertaker, be by instalments. There are two possibilities:

- (i) the total advance payment due is divided into equal instalments over the anticipated duration of the works and invoices are submitted accordingly at agreed intervals; or
- (ii) where the costs are likely to fluctuate greatly over the anticipated duration of the works, agreement should be reached as to the timing and amounts of advance payment to be invoiced over the period.

Invoices may be monthly or at some other agreed interval at the choice of the OO. The Undertaker can either invoice the OO each month for the agreed amount, or raise one invoice for the total amount showing the instalments agreed and the dates when due.

The total advance payment should not exceed 75% of 82% of the total estimated Allowable Cost of the ordered works. Adjustments may be made to planned instalments as the works proceed based on the projected outturn for the diversionary works from the Undertaker's monthly reports (see 7.2.7 below).

All advance payments should be capable of allocation to an individually referenced diversion from the Official Works Order ensuring that a clear audit trail is maintained.

6.1.6 Where it is agreed that the OO will carry out part of the diversionary works, any advance payment to the Undertaker should be adjusted accordingly by deducting the estimated cost of the OO works from 82% of the total estimated cost of the works (including the OO works) before applying the 75%.

6.1.7 All invoices will attract Value Added Tax (VAT) at the appropriate rate.

For payments by instalments:

- (a) if the Undertaker submits a separate invoice at each interval, then VAT is payable on this invoiced amount; or
- (b) if a single invoice is submitted for the total amount showing the instalments and dates when payable, VAT will become due when the invoice is rendered rather than at each instalment date. The first instalment must therefore include the total amount of VAT and subsequent instalments will not include any VAT.

6.1.8 The PS should ensure that all documentation relating to Official Works Orders and associated advance payments is retained (see 1.2.15 above).

7. CONSTRUCTION (C7)

7.1 Administration

7.1.1 To ensure the effective administration of diversionary works on site it is important that the OO Agent has a complete set of records in relation to each Undertaker's works. Only from this background will the OO Agent be able to successfully manage the diversionary works.

7.1.2 The PS should ensure that the OO Agent has obtained copies of all records accumulated prior to the commencement of the scheme. The PS should ensure that these records are maintained by the OO Agent throughout the construction phase.

7.1.3 Records maintained by the OO Agent shall include for each Undertaker a copy of:

- (a) any correspondence (including authorisation for any advance payments);
- (b) section 85/144 notices (NRSWA/C2.2);
- (c) C3 budget estimates (NRSWA/C3.2);
- (d) C4 detailed estimates (NRSWA/C4.2);
- (e) C5 notification of scheme commencement (NRSWA/C5.1);
- (f) Official Works Orders (NRSWA/C6.2);
- (g) the payment terms agreed;
- (h) Agreed Variations/Record of Change (NRSWA/C7.1);
- (i) meeting notes; and
- (j) all invoices.

7.2 Coordination & Monitoring Progress

7.2.1 When the OO scheme contractor has been appointed and before commencement of works, the OO Agent shall arrange for a formal meeting to be convened at the earliest opportunity between the OO Agent, the OO scheme contractor and the Undertaker. This meeting should be used to establish detailed programming, methods of working and general coordination of the works.

7.2.2 Further meetings should take place at least monthly between these parties during scheme construction to review progress and to identify any potential delays, disruptions, variations or changes. Early identification of any such matters should allow solutions to be identified quickly and consequently reduce or avoid any claims for delay or additional cost.

7.2.3 The OO Agent shall ensure that minutes of all meetings are produced and circulated promptly to all attending parties following the meeting. A copy of the agreed minutes should be forwarded to the PS.

7.2.4 The OO Agent shall keep contemporary records of all matters relating to diversionary works during the course of scheme construction. These records shall include, for each Undertaker and each diversion:

- (a) start and completion dates;
- (b) progress reports including monthly reports from the Undertaker;
- (c) programme delays;
- (d) standing time (of the OO scheme contractor and/or the Undertaker);
- (e) abortive works (of the OO scheme contractor and/or the Undertaker);
- (f) resources;
- (g) notes of relevant meetings; and
- (h) relevant correspondence.

The OO Agent shall keep all parties to the contract under which the scheme is constructed informed in writing of all such matters.

7.2.5 The OO Agent must ensure that specific contemporary records are maintained in any potential claim situation and where possible agree these with the Undertaker and OO scheme contractor as appropriate. The OO Agent is responsible for taking immediate action to mitigate any potential delays in consultation with the Undertaker and OO scheme contractor.

7.2.6 The OO Agent shall also obtain a copy of any programme updates agreed between the Undertaker and the OO scheme contractor. The OO Agent shall inform the PS of any programme modifications relating to the Undertaker's works.

7.2.7 The PS should attempt to ensure that the total advance payment made represents 75% of 82% of the estimated Allowable Costs. Accordingly, the OO Agent shall request from the Undertaker monthly reports on costs incurred and the projected outturn in accordance with C9.10 of the CoP. Where advance payments are being made by instalments, should the reported actual costs vary significantly from the estimate, either in programme or cost, revised instalments should be agreed with the Undertaker.

7.3 Variations and Changes

7.3.1 As the scheme proceeds, the need for variations or changes to the diversionary works may arise. Either the OO or the Undertaker may initiate variations to the Official Works Order. For the OO, the party responsible for the design, whether the OO Agent or OO scheme contractor, may initiate any such variations. The details and estimated costs of any required changes should be agreed between the OO Agent and the Undertaker.

7.3.2 Where it is agreed that a variation is necessary, the OO Agent should notify the PS accordingly and ensure that the change is recorded using **pro forma NRSWA/C7.1**.

7.3.3 The OO Agent shall ensure that this form is completed fully and that the following information is included:

- (a) reference to Official Works Order;
- (b) description of the variation or change;
- (c) estimated cost;
- (d) liability for payment; and
- (e) contra charges.

Under DBFO contracts the DBFO Company will be responsible for agreeing and documenting variations or changes including issuing pro forma NRSWA/C7.1.

7.3.4 The OO Agent shall document fully all variations and changes relating to diversionary works. This information should support cost changes between the C4 detailed estimate and the final account and may also form substantiation for future claims by the OO or Undertaker.

7.3.5 When apparatus which is not marked or is wrongly marked on records is discovered during scheme construction, the OO Agent should immediately inform the Undertaker of the location and nature of the apparatus and whether or not it is in use (so far as appears from external inspection). Confirmation should always be sought from the Undertaker where the apparatus appears not to be in use.

If diversionary works are necessary, the OO Agent should agree a course of action with the Undertaker with a view to minimising delay and disruption to the works but bearing in mind overall costs.

Where the apparatus is located in the maintainable highway or public road, the procedures outlined in the CoP and this guidance should be followed. However, it may be appropriate that certain stages of the standard process are omitted, although an agreed specification for the works will always be required. Where an Official Works Order has already been placed with the Undertaker for diversionary works on the scheme, consideration should be given to treating the diversion of the newly discovered apparatus as a variation to that order. The OO Agent must keep the PS fully informed throughout the process irrespective of whether a new works order is to be raised or the diversionary works are treated as a variation to an existing order.

7.3.6 Should the OO delete any previously ordered diversionary works, the Undertaker is entitled to receive the cost of cancellation.

8. CLAIMS (C8)

8.1 Claims

8.1.1 NRSWA provides that if the OO or the Undertaker does not comply with an agreement between them as to the necessary measures, the OO or Undertaker is liable to compensate the other in respect of any loss or damage resulting from the non-compliance.

8.1.2 Claims may arise between the OO and the Undertaker from several sources, for example:

- (a) when the OO scheme contractor is delayed by the Undertaker; or
- (b) when the Undertaker is delayed by the OO scheme contractor.

8.1.3 The PS and OO Agent should make every effort to avoid or mitigate claims by monitoring closely the progress of the scheme. The OO scheme contractor should be encouraged to effectively plan and coordinate the works. Use of an early warning system should be promoted to ensure that the OO scheme contractor and the Undertaker are aware of the potential consequences of failing to comply with any agreement as to the necessary measures. In the event of claims arising, the OO Agent should ensure that agreed contemporary records are maintained to fully support the claim.

8.1.4 The OO scheme contractor is responsible for notifying the PS or OO Agent, as appropriate, of any claims arising from the Undertaker's works. The OO Agent should attempt to initiate the early resolution of any issues that may give rise to a claim.

The PS should note that any claim sums properly due may incur interest charges if not paid promptly.

8.1.5 The OO Agent shall advise the PS immediately on receipt of any claim from the OO scheme contractor that is attributed to an Undertaker. The OO Agent shall then notify the Undertaker that the OO may make a claim for consequential losses from the Undertaker.

8.1.6 Claims from the Undertaker for the cost of repairing damage caused by the OO scheme contractor to the Undertaker's apparatus should initially be dealt with under the OO scheme contractor's third party insurance, which the OO scheme contractor is required to have under the scheme construction contract.

8.1.7 Claims may also arise from delays suffered by one Undertaker as the result of default by another. Undertakers should resolve these claims without reference to the OO or the OO scheme contractor.

8.2 Dispute Resolution

8.2.1 The CoP envisages that all disputes should be resolved at a local level.

8.2.2 Where a dispute cannot be resolved locally, the CoP promotes the use of alternative dispute resolution techniques, such as conciliation. If, however, agreement cannot be reached on any matter arising, the dispute should be referred to Arbitration under section 84(3) (England and Wales) or 143(3) (Scotland) of NRSWA.

9. INVOICING AND PAYMENT (C9)

9.1 Final Account

9.1.1 The final payment made by the OO should be on the basis of an itemised invoice detailing all Allowable Costs of the necessary measures. In England and Scotland, the basis on which the amounts of costs are to be calculated is given in the Recovery of Costs Regulations.

The Recovery of Costs Regulations provide that the Allowable Costs for the necessary measures shall comprise relevant direct costs and associated overheads. Direct costs are the cost of staff employed directly by the Undertaker, the costs payable to the Undertaker's contractors, the cost of materials, the cost of hiring equipment, plant and vehicles and any other relevant costs specifically attributable to the necessary measures. Overheads, calculated as a percentage, must be applied separately to each of the aforementioned categories of direct cost.

9.1.2 Invoices should be presented by the Undertaker upon completion of all agreed measures in a similar format to the C4 detailed estimates. The OO Agent shall request the Undertaker submits the final invoice using **pro forma NRSWA/C9.1**. Where the submitted invoice is formatted differently, the OO Agent shall ensure that a similar level of detail is identifiable.

9.1.3 The final account invoice pro forma NRSWA/C9.1 includes the following breakdown of information relating to the actual works completed by the Undertaker:

- (a) total allowable cost of works (or stage of works), itemised to reflect the detailed estimate provided under section C4(iii);
- (b) where advance payment has been made by the OO, 18% of (a), being the contribution due from the Undertaker;
- (c) where agreed measures are undertaken by the OO, 18% of the allowable OO costs;
- (d) total allowable cost share, being the summation of (b) and (c) above;
- (e) where the scheme is part funded by a third party, 18% of the proportion of any contribution towards the total allowable cost of the works;
- (f) net allowable cost share, being (d) less (e);
- (g) total contribution due from the OO for the diversionary works, being (a) less (f); and
- (h) deduction of any Advance Payment.

9.1.4 The OO Agent shall check the final account and ensure that:

- (a) the invoice is arithmetically correct;
- (b) the basis of the charges made are in accordance with the Recovery of Costs Regulations;
- (c) the invoice is in accordance with pro forma NRSWA/C9.1 and that backup information is available for inspection;
- (d) the invoice is correct in the application of VAT;
- (e) the final account has deductions for betterment, deferment of renewal, recovered or scrap materials and cost sharing where applicable; and
- (f) the final account is consistent with the C4 detailed estimate with due allowance for agreed variations or changes.

If the final account varies significantly from the C4 detailed estimate, justification must be documented by the OO Agent.

9.1.5 The calculation of allowance for deferment of renewal should be completed by the Undertaker in accordance with the Bacon and Woodrow formula presented in Appendix E of the CoP. Deferment of renewal allowances only apply if certain conditions are satisfied (paragraphs E1.1(a)-(f) of Appendix E of the CoP) and the OO Agent shall test the applicability of any deferment allowance. The OO Agent shall note that Appendix E of the CoP provides the accepted normal lives of standard apparatus with nil residual value. The normal lives provided in the CoP shall be used for the calculation of any deferment allowances. Where no service life is provided in the CoP, the life expectancy of the apparatus used to calculate the allowance for deferment of renewal is by agreement.

9.2 Verification and Payment

9.2.1 Where any information is incorrect or missing from the final account or where the OO Agent wishes to verify charges being made through an audit, the OO Agent must advise the Undertaker promptly, and in any event no later than 30 days after the invoice date, in order to avoid any claim from the Undertaker for late payment by the OO. Late payment of invoices by the OO may give rise to claims for interest charges by the Undertaker.

9.2.2 Reasonable facilities should be made available to permit either party to verify that the charges being made by the other party are allowable and reasonable.

9.2.3 Unless otherwise agreed with the PS, the OO Agent shall undertake a detailed examination of the Undertaker's charges to establish that they are both allowable and reasonable and report to the PS accordingly. In England and Scotland, the OO Agent shall also verify that the charges made are in accordance with the Recovery of Costs Regulations, in particular that separate overheads have been calculated for each category of direct cost.

9.2.4 The OO Agent shall approve all final invoices before forwarding them to the PS for payment. The PS countersigns the invoices before arranging payment.

9.2.5 The PS must ensure that the audit trail is complete through all stages of the scheme up to and including settlement of the final account (see 1.2.15 above).

10. REFERENCES

Measures Necessary Where Apparatus is Affected by Major Works (Diversionary Works): A Code of Practice 1992.

Highways Act 1980.

HM Treasury Procurement Guidance No 1: Essential Requirements for Construction Procurement.

New Roads and Street Works Act 1991.

Roads (Scotland) Act 1984.

The Road Works (Recovery of Costs) (Scotland) Regulations 2003.

The Road Works (Registers, Notices, Directions and Designations) (Scotland) Regulations 1992 and amendments.

The Road Works (Sharing of Costs of Works) (Scotland) Regulations 2003.

The Street Works (Recovery of Costs) (England) Regulations 2002.

The Street Works (Registers, Notices, Directions and Designations) Regulations 1992 and amendments.

The Street Works (Sharing of Costs of Works) Regulations 1992.

The Street Works (Sharing of Costs of Works) (England) Regulations 2000.

Town and Country Planning Act 1990.

Town and Country Planning (Scotland) Act 1997.

11. ENQUIRIES

All technical enquiries or comments on this Advice Note should be sent in writing as appropriate to:

Chief Highway Engineer
The Highways Agency
123 Buckingham Palace Road
London
SW1W 9HA

G CLARKE
Chief Highway Engineer

Chief Road Engineer
Scottish Executive
Victoria Quay
Edinburgh
EH6 6QQ

J HOWISON
Chief Road Engineer

Chief Highway Engineer
Transport Wales
Welsh Assembly Government
Cathays Parks
Cardiff
CF10 3NQ

M J A PARKER
Chief Highway Engineer
Transport Wales

Director of Engineering
The Department for Regional Development
Roads Service
Clarence Court
10-18 Adelaide Street
Belfast BT2 8GB

G W ALLISTER
Director of Engineering

APPENDIX 1 EXAMPLES

EXAMPLE A: OO scheme merges with existing maintainable highway/public road –
Diagram A.

EXAMPLE B: OO scheme crosses existing maintainable highway/public road requiring a new
overbridge with temporary diversion of the existing maintainable highway/public
road – Diagram B.

EXAMPLE C: OO scheme crosses existing maintainable highway/public road with the
introduction of a new roundabout – Diagram C.

EXAMPLE D: OO scheme across open countryside – Diagram D.

**EXAMPLE A: OO scheme merges with existing maintainable highway/public road –
Diagram A**

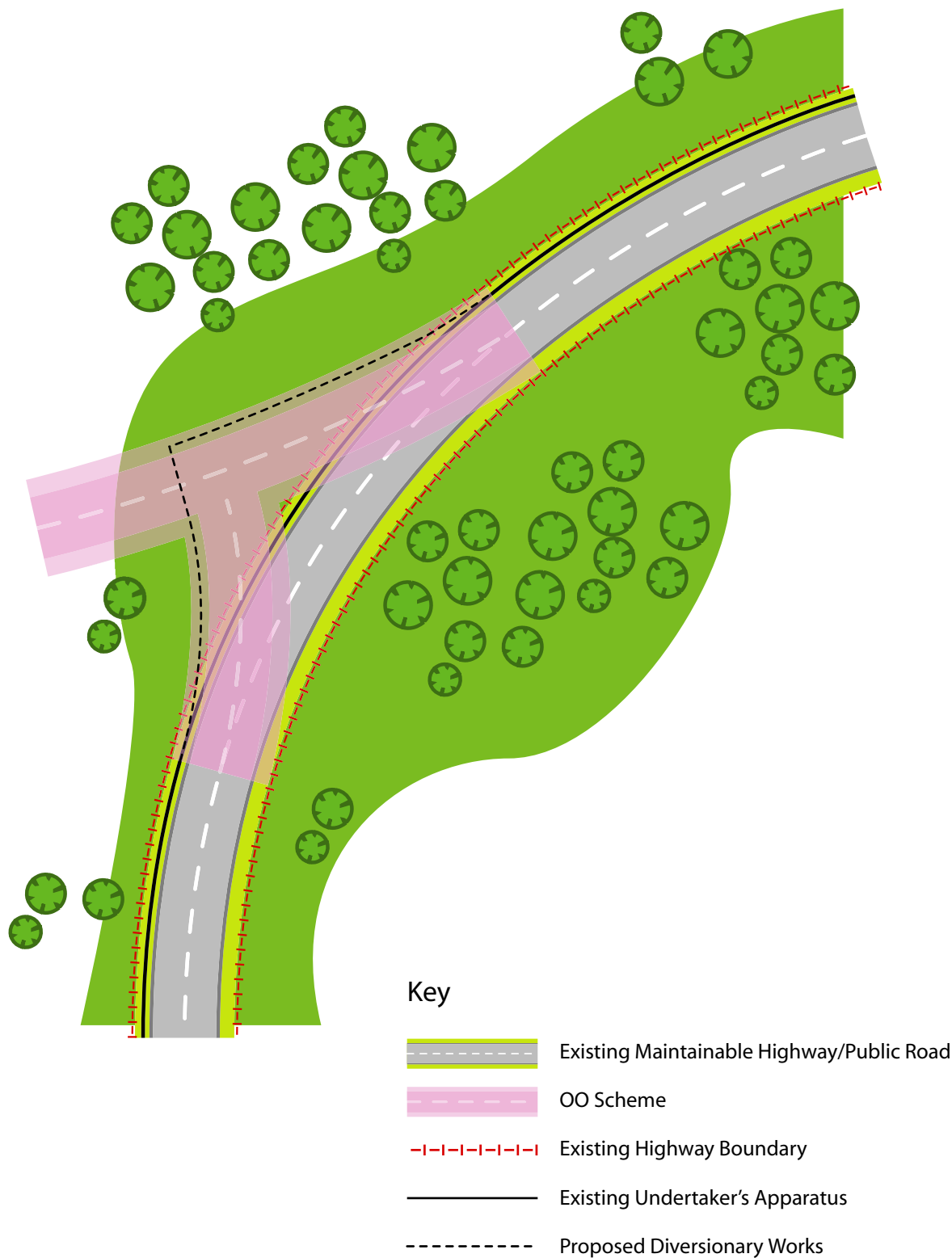
A1 This example shows the construction of an OO scheme which merges into an existing maintainable highway/public road containing an Undertaker's apparatus.

A2 Having discussed all options, it is agreed that the Undertaker's apparatus in the existing maintainable highway/public road needs to be diverted as a result of the OO scheme. The layout shown in the diagram indicates the agreed new route of the apparatus, diverting along the new scheme and reconnecting to the existing apparatus at points appropriate to the new scheme alignment.

A3 Where the OO scheme merges with the existing maintainable highway/public road, the reconstruction is major highway works/major works for road purposes.

A4 As the **affected Undertaker's apparatus** is in the existing **maintainable highway/public road** and the OO is undertaking **major highway works/major works for road purposes**, the provisions of NRSWA and the Sharing of Costs of Works Regulations apply to the diversionary works.

Diagram A



EXAMPLE B: OO scheme crosses existing maintainable highway/public road requiring a new overbridge with temporary diversion of the existing maintainable highway/public road – Diagram B

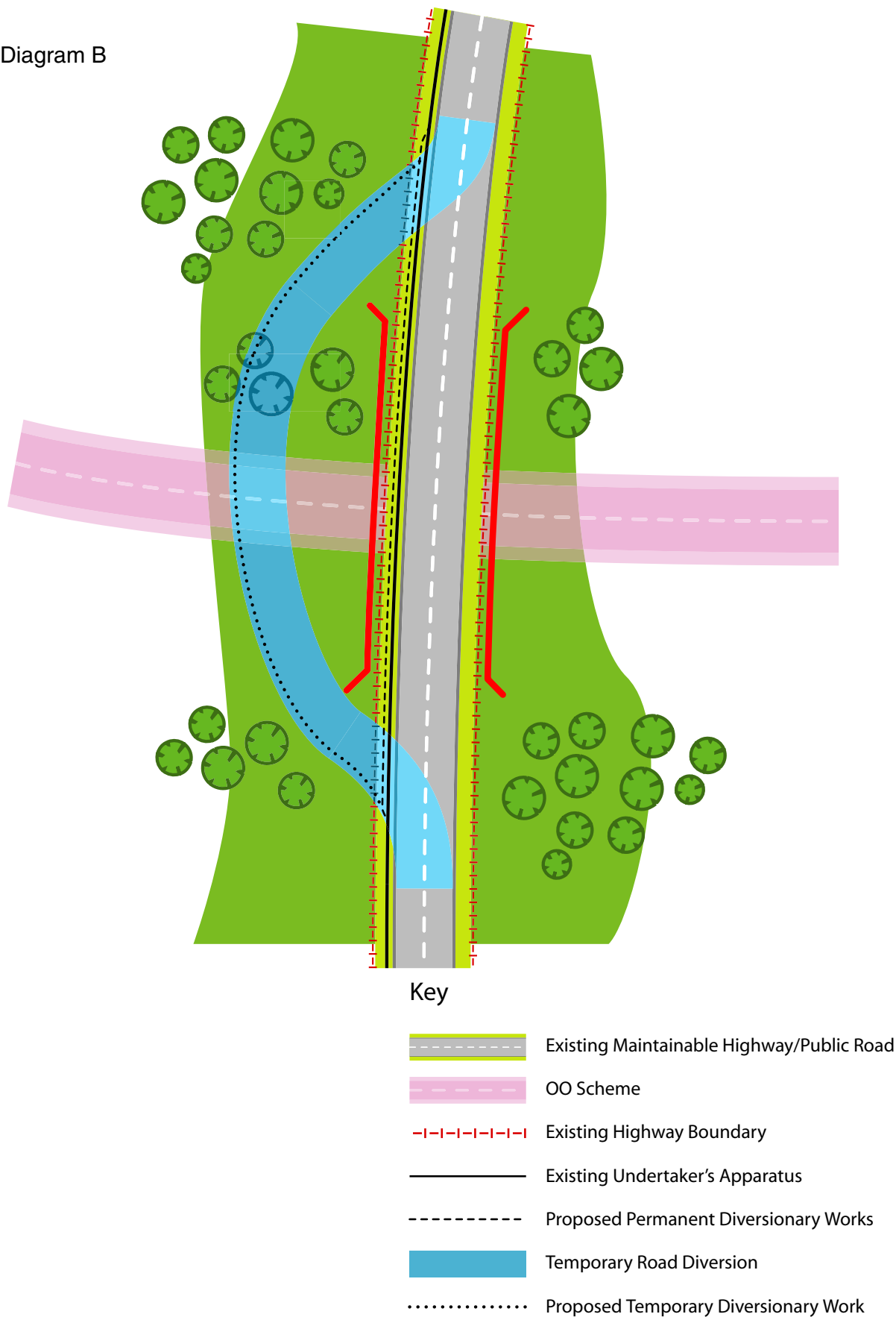
B1 This example shows an OO scheme crossing an existing maintainable highway/public road. The existing maintainable highway/public road is to be vertically realigned to pass over the new scheme. Scheme construction will require temporary diversion of the existing maintainable highway/public road, which contains an Undertaker's apparatus.

B2 Having discussed all options with the Undertaker, the agreed measures include the temporary diversion of the Undertaker's apparatus to allow bridge construction and the permanent relocation of the apparatus in the verge of the raised maintainable highway/public road crossing the bridge. Part of the agreed measures will require work outside the boundary of the maintainable highway/public road.

B3 The vertical realignment of the existing maintainable highway/public road involves major highway works/major works for road purposes.

B4 As the **affected Undertaker's apparatus** is in the existing **maintainable highway/public road** and the OO is undertaking **major highway works/major works for road purposes**, the provisions of NRSWA and the Sharing of Costs of Works Regulations apply to the agreed necessary measures, being both the temporary and permanent diversion of the apparatus, including any off site works.

Diagram B



EXAMPLE C: OO scheme crosses existing maintainable highway/public road with the introduction of a new roundabout – Diagram C

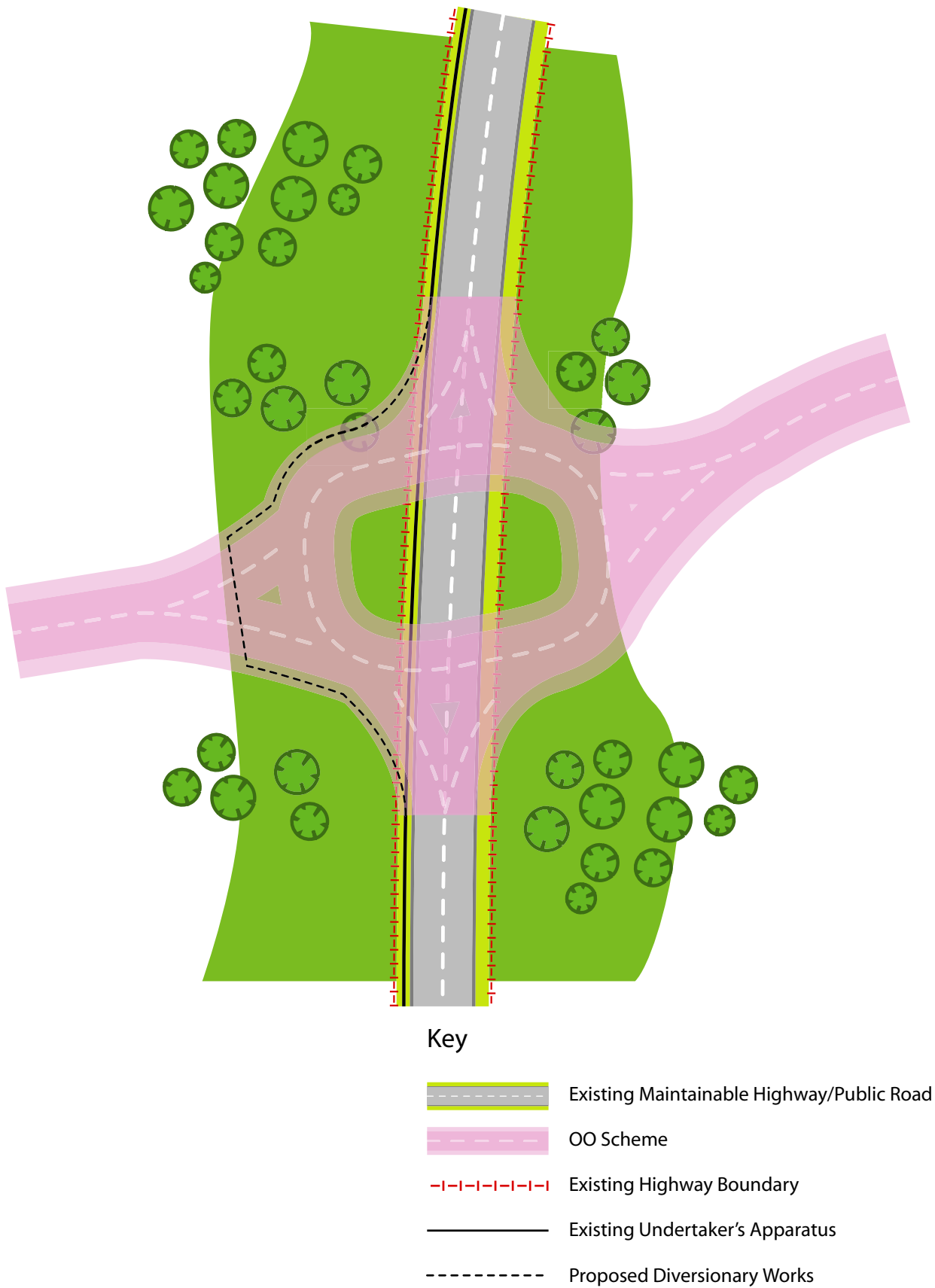
C1 This example shows an OO scheme crossing an existing maintainable highway/public road with the introduction of a new roundabout. The existing maintainable highway/public road is widened and reconstructed to link to the roundabout. The Undertaker's apparatus is in the verge of the existing maintainable highway/public road.

C2 Having discussed all options with the Undertaker, the agreed measures shown in the diagram indicate the new route of the apparatus diverted around the perimeter of the new roundabout.

C3 The introduction of the new roundabout is major highway works/ major works for road purposes.

C4 As the **affected Undertaker's apparatus** is in the existing **maintainable highway/public road** and the OO is undertaking **major highway works/major works for road purposes**, the provisions of NRSWA and the Sharing of Costs of Works Regulations apply to the agreed diversionary works.

Diagram C



EXAMPLE D: OO scheme across open countryside – Diagram D

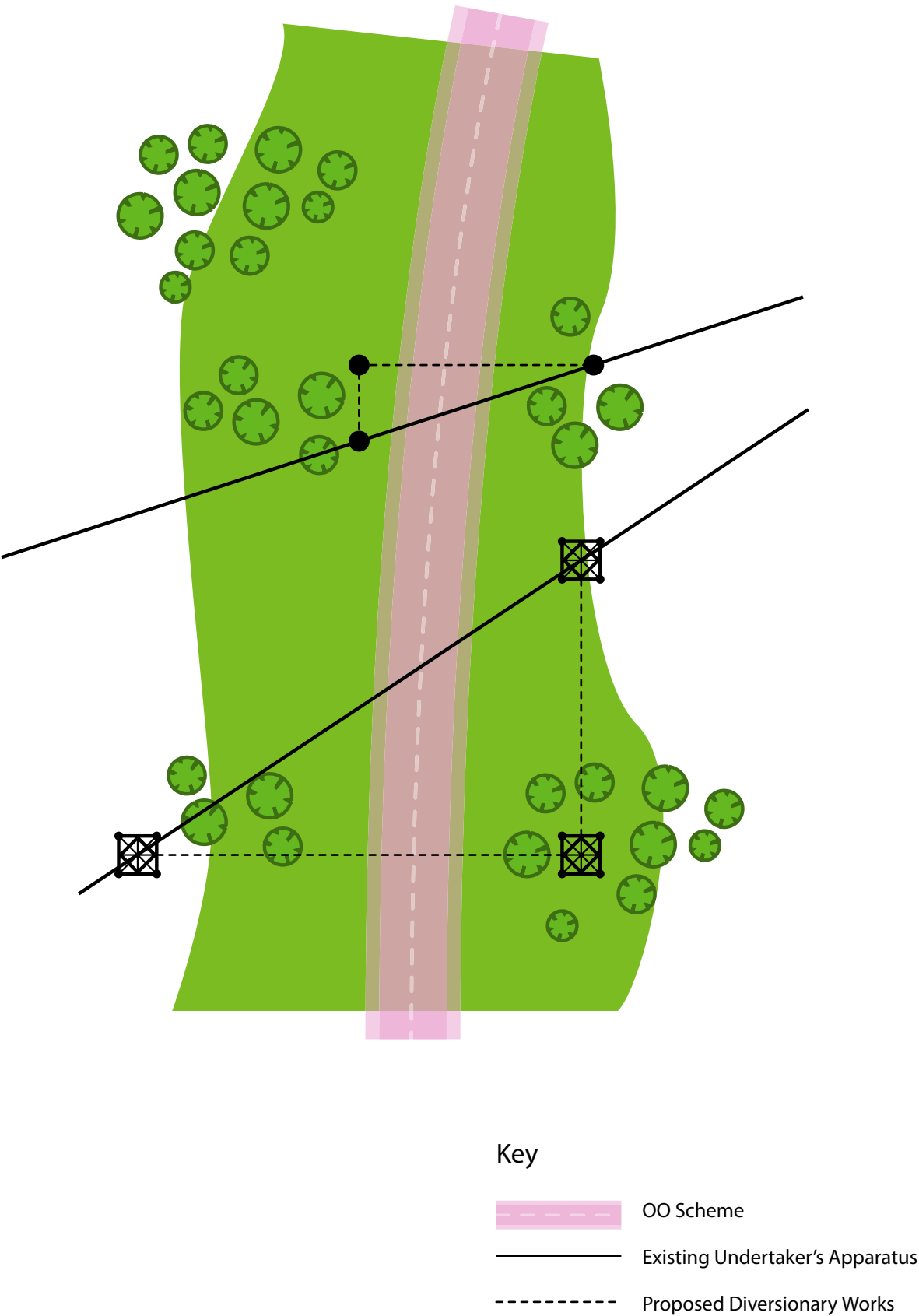
D1 This example shows an OO scheme, through open country, crossing a gas pipeline and overhead electricity cable.

D2 Having discussed all options, it is agreed that the Undertakers' apparatus needs to be diverted as a result of the OO scheme. The layout shown in the diagram indicates the agreed new routes of the apparatus crossing the OO scheme at right angles before linking back to the original line.

D3 The affected apparatus is not in a maintainable highway/public road. Therefore any diversionary works do not fall under the provisions of NRSWA and the Sharing of Costs of Works Regulations **do not** apply.

D4 The PS should establish the alternative legislation applying to the relocation of the apparatus (e.g. the Town and Country Planning Act). Nevertheless, the PS should endeavour to apply the procedures in this guidance when agreeing and arranging the necessary diversions, the OO accepting the reasonable costs for the diversionary works.

Diagram D



APPENDIX 2 STANDARD LETTERS AND PRO FORMA

NRSWA/C1.1: Notification of appointment of OO Agent for a scheme from PS to Undertaker

NRSWA/C1.2: Notification of appointment of OO Agent for term maintenance from PS to Undertaker

NRSWA/C2.1: Preliminary inquiry letter from OO Agent to Undertaker

NRSWA/C2.2: Section 85 (England and Wales) or 144 (Scotland) Notice from OO to Undertaker

NRSWA/C3.1: Draft Schemes and Budget Estimates (C3) inquiry letter from OO Agent to Undertaker

NRSWA/C3.2: Pro forma for C3 Budget Estimates

NRSWA/C4.1: Detailed Scheme and Detailed Estimates (C4) inquiry letter from OO Agent to Undertaker

NRSWA/C4.2: Pro forma for C4 Detailed Estimates

NRSWA/C5.1: Notification of Scheme Commencement from PS to Undertaker

NRSWA/C6.1: Letter for Official Works Order from PS to Undertaker

NRSWA/C6.2: Pro forma for Official Works Order

NRSWA/C7.1: Pro forma for Agreed Variation/Record of Change

NRSWA/C9.1: Pro forma for Final Account

***NRSA/C1.1: Notification of appointment of OO Agent
for a scheme from PS to Undertaker***

IN CONFIDENCE

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

NOTIFICATION OF APPOINTMENT OF AGENT

The ***[Insert name of OO]*** is considering the following scheme involving major works: ***[Insert scheme name]***.

[Insert name of OO Agent] has been appointed as Agent to act on behalf of ***[Insert name of OO]*** in connection with the diversion of Undertakers' apparatus as a result of the proposed scheme. Our Agent will contact you shortly to commence/continue* the process of implementing any necessary measures in connection with the diversion of your apparatus. If you require any further information regarding the scheme, please contact our Agent at the following address:

[Insert OO Agent address]

Please note that the ***[Insert name of OO]*** will retain the functions of placing orders and paying for any necessary diversionary works.

If you wish to discuss further the role of our Agent, please contact the ***[Insert name of OO]'s Project Sponsor, [Insert name of OO Project Sponsor]***, at the above address or by telephoning ***[Insert OO telephone number]***.

Yours faithfully

[Project Sponsor]

* delete as appropriate

***NRSA/C1.2: Notification of appointment of OO Agent
for term maintenance from PS to Undertaker***

IN CONFIDENCE

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

NOTIFICATION OF APPOINTMENT OF AGENT

The ***[Insert name of OO]*** has appointed ***[Insert name of OO Agent]*** to administer the maintenance of its highway network within the area shown on the attached plan, otherwise known as ***[Insert Area Name or Number]***.

[Insert name of OO Agent] commenced/will commence* their duties on ***[Insert date]***. As part of these duties they will be assisting the ***[Insert name of OO]*** in the performance of certain functions of the authority under Sections 84 and 85 of the New Roads and Street Works Act.

Please note that the ***[Insert name of OO]*** will retain the functions of placing orders and paying for any necessary diversionary works.

It is anticipated that certain maintenance works will necessitate the diversion of Undertakers' apparatus. ***[Insert name of OO Agent]*** will contact you in due course to request details of the location of your apparatus within the Area and will engage in the process of implementing any necessary measures should diversionary works be required.

If you wish to discuss further the role of our Agent, please contact the ***[Insert name of OO]***'s Project Sponsor, ***[Insert name of OO Project Sponsor]***, at the above address or by telephoning ***[Insert OO telephone number]***.

Yours faithfully

[Project Sponsor]

* delete as appropriate

***NRSA/C2.1: Preliminary inquiry letter from OO
Agent to Undertaker***

IN CONFIDENCE

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

PRELIMINARY INQUIRY

Appendix C2 of the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works
(Diversionary Works)'

The ***[Insert name of OO]*** is considering a scheme involving major works as detailed below:

Scheme Number:

Location of Works:

O.S. Grid Ref.:

Street /Road No. & Name:

From:

To:

Description of Works:

Expected Scheme Start Date:

Expected Scheme Completion Date:

A plan showing the ***[Insert name of OO]***'s proposals is enclosed.

In order that all reasonable precautions may be taken to avoid risk to health and safety through contact with any of your existing apparatus during execution of the proposed works, please indicate the general position and nature of your apparatus in the locality of the proposed works and return the plan to this office. In addition, please highlight any likely special problems that could arise in connection with your apparatus as a result of the proposed works and any limitations on the quality of the information provided. If you have no apparatus in the area of the proposed works, please send a nil return.

Notice under The Street/Road* Works (Registers, Notices, Directions and Designations) Regulations has been sent/will be sent in due course*.

As previously notified ***[Insert name of OO Agent]*** have been appointed as Agent to act on behalf of ***[Insert name of OO]*** in connection with any necessary diversionary works. All future correspondence should therefore be sent to us at the above address.

Under the CoP, the requested information should be provided free of charge and normally within 10 working days. Please contact us at your earliest convenience if you are unable to provide the information within this time.

If you require any further information, please contact our representative ***[Insert name of OO Agent representative]*** at the above address (Telephone no. ***[Insert OO Agent telephone number]***).

Yours faithfully

[OO Agent]

Encl

[Plan of OO proposals]

* delete as appropriate.

**NRSA/C2.2: Section 85 (England and Wales) or 144 (Scotland) Notice from
OO to Undertaker**

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

**SECTION 85/144*
NOTICE OF MAJOR WORKS AFFECTING
UNDERTAKERS' APPARATUS**

The **[Insert name of OO]** hereby gives notice under Section 85/144* of NRSA of its intention to execute major works as detailed below.

Project No. _____

County	Town	Street/Road* Name	Works Description	Start Date

If you require any further information, please contact the **[Insert name of OO]**'s Project Sponsor, **[Insert name of OO Project Sponsor]**, at the above address or by telephoning **[Insert OO telephone number]**.

Yours faithfully

[OO Designated Person]

* delete as appropriate.

***NRSA/C3.1: Draft Schemes and Budget Estimates (C3) inquiry letter
from OO Agent to Undertaker***

IN CONFIDENCE

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

DRAFT SCHEMES AND BUDGET ESTIMATES

Appendix C3 of the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works
(Diversionary Works)'

Further to our Preliminary Inquiry ***[Insert reference]***, please find attached details of the ***[Insert name of OO]***'s proposals for major works as detailed below:

Scheme Number:

Location of Works:

O.S. Grid Ref.:

Street /Road No. & Name:

From:

To:

Description of Works:

Expected Scheme Start Date:

Expected Scheme Completion Date:

Please provide preliminary details of the effects on your apparatus, indicating on one copy of the enclosed plan your existing apparatus and the alterations proposed.

In addition, please identify any special requirements involved such as:

- (a) items of equipment on long delivery and the need for advance ordering;
- (b) interruption of supplies to consumers;
- (c) disconnection of supplies to premises which are to be demolished;
- (d) special wayleave agreements associated with the diversion of your apparatus;
- (e) early access to sites for the construction of special structures such as sub-stations, pressure regulation stations, etc.;
- (f) planning consents or special ministerial consents; and
- (g) any other high-risk critical items or issues.

Please also provide C3 Budget Estimates based on current rates, including all direct costs and overheads likely to arise from the necessary measures in consequence of the proposed works. A pro forma detailing the information required at this stage is attached to this letter for your completion.

Under the CoP, the requested information should be provided free of charge and normally within 20 working days. Please contact us at your earliest convenience if you are unable to provide the information within this time.

If you require any further information, please contact our representative, ***[Insert name of OO Agent representative]*** at the above address (Telephone No. ***[Insert OO Agent telephone number]***).

Yours faithfully

[OO Agent]

Encl

***[Plan of OO scheme
Pro forma NRSWA/C3.2]***

* delete as appropriate

NRSA/C3.2: Pro forma for C3 Budget Estimates

Page 1 of 2

**NEW ROADS AND STREET WORKS ACT 1991
BUDGET ESTIMATE**

Appendix C3 to the Code of Practice (CoP)

'Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works)'

OO Name and Address:

OO Ref No: _____

(to be quoted on all correspondence)

Undertaker Ref: _____

(to be quoted on all correspondence)

Date of Estimate: _____

Undertaker:

Scheme:

Diversion Ref/Description:

Anticipated Duration:

Lead Times (refer to CoP):

Yes/No* (* delete as appropriate)

Is Design /Survey Work required:

£

Anticipated Cost of Design/Survey
Work

Budget Estimate Summary:

(Net of any discount(s))

Direct Costs

(including Overheads @ %) £ _____

Contract Costs

(including Overheads @ %) £ _____

Stores

(including Overheads @ %) £ _____

Other (*please specify*)

(including Overheads @ %) £ _____

**Budget Estimate Project
Cost**

£ _____ (Excluding VAT)

Possibility of:

Yes/No

If No, state reason

Deferment of Renewal

Betterment

Materials Recovered

***NRSA/C4.1: Detailed Scheme and Detailed Estimates (C4) inquiry
letter from OO Agent to Undertaker***

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

DETAILED SCHEME AND DETAILED ESTIMATES

Appendix C4 of the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works
(Diversionary Works)'

Further to our previous correspondence and discussions, the ***[Insert name of OO]*** is proposing a scheme involving major works as detailed below:

Scheme Number:

Location of Works:

O.S. Grid Ref.:

Street /Road No. & Name:

From:

To:

Description of Works:

Expected Scheme Start Date:

Expected Scheme Completion Date:

Two copies of the final scheme plans at a scale of 1:500 or larger are enclosed, together with outline details of our proposed programme.

In accordance with Appendix C4 of the CoP, please provide the following:

- i. A description of any necessary measures, clearly stating the reason for diversion or protection and giving details of the existing apparatus affected, such as lengths and sizes of pipes/cables/ducts, depths of cover and ages.
- ii. A detailed specification of the works required including as appropriate:
 - (a) details of all replacement apparatus, i.e. lengths, type, material, size and routes, drawing attention to those materials that have long delivery periods;
 - (b) details of all protection work;

- (c) advance or off-site works;
 - (d) method of construction and sequence of operations where these have a significant effect on cost or programme;
 - (e) arrangements for delivery of materials and storage requirements;
 - (f) route and level requirements, trench dimensions, methods of excavation and assumed ground conditions;
 - (g) reinstatement requirements, backfill specification, type of reinstatement (temporary, interim, permanent) and removal of surplus spoil;
 - (h) details of temporary works;
 - (i) any special requirements, e.g. provision of temporary accommodation for staff;
 - (j) details of the requirements for commissioning of apparatus, e.g. original apparatus having to remain commissioned until all services are transferred; and
 - (k) method of dealing with apparatus made redundant by the scheme, e.g. recovered or abandoned in situ.
- iii. A detailed estimate based on current rates with itemised direct costs also to include:
- (a) overheads;
 - (b) details of the likely allowance for deferment of renewal based on the formula set out in Appendix E of the CoP and for betterment given in Appendix F of the CoP; and
 - (c) allowance for any materials recovered.
- A pro forma detailing the information required at this stage is attached to this letter for your completion. For works phased over more than three months, you may wish to consider the provision of separate estimates for each phase of the diversionary works.
- iv. Provisional programmes and timescales for works including as appropriate:
- (a) site works;
 - (b) off-site works;
 - (c) time for obtaining materials with a long lead-time on delivery;

- (d) land purchase; and
- (e) wayleaves acquisition.

Under the CoP, the requested information should normally be provided within 25 working days. Please contact us at your earliest convenience if you are unable to provide the information within this time.

Either

The ***[Insert name of OO]*** will pay the allowable costs for the preparation of your C4 estimate following receipt of the estimate. Invoices should be sent to the above address.*

Or

As a C3 estimate has not been requested for this scheme, this initial C4 estimate should be provided free of charge.*

It is anticipated that the scheme will be wholly funded by ***[Insert name of OO]*** and will be subject to the Street Works (Sharing of Costs of Works) Regulations as provided by section 85 of NRSWA.

[If the scheme is not funded wholly by the OO the PS should inform the Undertaker which party will be paying for its services and the proportion anticipated and replace this paragraph accordingly.]

If you require any further information, please contact our representative, ***[Insert name of OO Agent representative]*** at the above address (Telephone No. ***[Insert OO Agent telephone number]***).

Yours faithfully

[OO Agent]

Encl

***[OO final
scheme plans
Pro forma NRSWA/C4.2]***

* Delete as appropriate

NRSA/C4.2: Pro forma for C4 Detailed Estimates

Page 1 of 3

**NEW ROADS AND STREET WORKS ACT 1991
DETAILED ESTIMATE**

Appendix C4 to the Code of Practice (CoP)

'Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works)'

OO Name and Address:

OO Ref No:

(to be quoted on all correspondence)

Undertaker Ref:

(to be quoted on all correspondence)

Date of Estimate:

Undertaker:

Scheme:

Diversion Ref/Description:

Anticipated Duration:

Lead Times (refer to CoP):

**NEW ROADS AND STREET WORKS ACT 1991
DETAILED ESTIMATE**

Detailed Estimate Summary:

Direct Labour

(including Overheads @ %) £ _____

Contract Labour

(including Overheads @ %) £ _____

Plant

(including Overheads @ %) £ _____

Materials

(including Overheads @ %) £ _____

£ _____

Other Costs *(please specify)*

(including Overheads @ %) £ _____

£ _____

£ _____

£ _____

£ _____

Estimated Project Costs:

£ _____

Less deductions for:

Deferment of Renewal £ _____

Betterment £ _____

Materials Recovered £ _____

Total Deductions:

£ _____

Total Detailed Estimated Cost of Works

£ _____

(a)

(exclusive of measures undertaken by OO)

In the case of works covered by the cost sharing principle

18% Total Estimated Cost of Works (a) £ _____

(b)

18% of £..... for measures undertaken by OO £ _____

(c)

Allowable Cost Share (b + c) £ _____

(d)

18% of the proportion of total cost funded by third parties *(As defined by the Regulations)* £ _____

(e)

Net Allowable Cost Share (d - e) £ _____

(f)

Net Detailed Estimate (excluding VAT) (a - f) £ _____

(g)

ADVANCE PAYMENTS

Single lump sum before diversionary works begin *(75% of net detailed estimate (g))* £ _____

For works taking over 3 months, instalments required each month during execution of the diversionary works *(to total 75% of net detailed estimate (g))* £ _____

NEW ROADS AND STREET WORKS ACT 1991
DETAILED ESTIMATE

- Note:**
1. The Estimate should be supplied with and relate to the Code of Practice Appendix C4 – Description of necessary measures, detailed specification, provisional programmes and timescales of the works.
 2. Evidence to substantiate the Estimate should be retained by the Undertaker (see Appendix C1.1 of the Code of Practice).
 3. Cost sharing percentages are in accordance with the Sharing of Costs of Works Regulations.
 4. Refer to the current Recovery of Costs Regulations for the definition of Overheads, etc.

NRSA/C5.1: Notification of Scheme Commencement from PS to Undertaker

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991

SCHEME COMMENCEMENT NOTIFICATION & SETTLE SPECIFICATION

Appendix C5 of the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works
(Diversionary Works)'

Further to our previous correspondence and discussions please note that the ***[Insert name of OO]*** now intends to commence its major works as detailed below:

Scheme Number:

Location of Works:

O.S. Grid Ref.:

Street /Road No. & Name:

From:

To:

Description of Works:

Expected Scheme Start Date:

Expected Scheme Completion Date:

Either

An Official Works Order in accordance with the Code of Practice will be issued in due course.*

Or

An Official Works Order Ref ***[Insert Ref]*** in accordance with the Code of Practice is attached to enable you to proceed with advance ordering of those materials that have long delivery periods. For this Order, the ***[Insert name of OO]*** wishes/does not wish* to take advantage of the provisions of NSWA enabling the sharing of costs of diversionary works.*

Or

An Official Works Order Ref ***[Insert Ref]*** in accordance with the Code of Practice is attached to enable you to proceed with advance ordering of those materials that have long delivery periods and to undertake those works specified on the Works Order in advance of the main works. For this Order, the ***[Insert name of OO]*** wishes/does not wish* to take advantage of the provisions of NSWA enabling the sharing of costs of diversionary works.*

If an Official Works Order for advanced works is being placed and cost share is sought:

To enable the appropriate advance payment to be made in order to secure cost share for the attached works order, please submit a standard invoice.*

If an Official Works Order for advanced works is being placed and cost share is not required:

Payment for the attached works order will be made following settlement of the final account upon the completion of the works.*

All invoices should be sent to the ***[Insert name of OO]***'s Project Sponsor, ***[Insert name of OO Project Sponsor]*** at the above address.**

Also enclosed with this letter are standard pro forma detailing the information required should any variations or changes occur to the ordered advance works and for submission of your final account.**

Please acknowledge receipt of this notice and respond with an itemised estimate and programme and a detailed specification, if not already submitted.

If you require any further information, please contact our Agent's representative ***[Insert name of OO Agent representative]*** at the following address:

[Insert OO Agent address]

Yours faithfully

[Project Sponsor]

Encl

[Pro forma NRSWA/C6.2]**

[Pro forma NRSWA/C7.1]**

[Pro forma NRSWA/C9.1]**

* delete as appropriate

** delete if no Official Works Order

NRSWA/C6.1: Letter for Official Works Order from PS to Undertaker

Dear Sirs

NEW ROADS AND STREET WORKS ACT 1991
NOTIFICATION OF CONTRACTOR & MAIN ORDER

Appendix C6 of the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works
(Diversionary Works)'

Scheme Number:

Location of Works:

O.S. Grid Ref.:

Street /Road No. & Name:

From:

To:

Description of Works:

Expected Scheme Start Date:

Expected Scheme Completion Date:

Please find enclosed our Official Works Order Ref. ***[Insert Ref]***.

The ***[Insert name of OO]*** wishes to take advantage of the provisions of NRSWA enabling the sharing of cost of diversionary works. To enable the appropriate advance payment to be made in order to secure cost share for the attached works order, please submit a standard invoice.*

Or

The ***[Insert name of OO]*** does not wish to take advantage of the provisions of NRSWA enabling the sharing of cost of diversionary works. As such, following completion of the works and settlement of the final account, the ***[Insert name of OO]*** will make payment of any charges due.*

All invoices should be sent to the ***[Insert name of OO]***'s Project Sponsor, ***[Insert name of OO Project Sponsor]*** at the above address.

Also enclosed with this letter are standard pro forma detailing the information required should any variations or changes occur to the planned diversionary works and for submission of your final account.

Please be advised that contact details in respect of the scheme are as follows:

OO Agent
[Insert details]

Agent's Representative
[Insert details]

OO Contractor
[Insert details]

Contractor's Representative
[Insert details]

Please provide your corresponding contact details at your earliest convenience.

Yours faithfully

[Project Sponsor]

Encl

[Pro forma NRSWA/C6.2
Pro forma NRSWA/C7.1
Pro forma NRSWA/C9.1]

* delete as appropriate

NRSA/C6.2: Pro forma for Official Works Order

**NEW ROADS AND STREET WORKS ACT 1991
OFFICIAL WORKS ORDER**

Appendix C6 to the Code of Practice (CoP)
'Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works)'

Scheme:

Order Ref:

OO Ref. No.

(To be quoted on all invoices and correspondence)

Estimate Reference & Date:

To:

Invoices to be sent to:

Diversion	OO Ref	Undertaker Ref
<input type="text"/>	<input type="text"/>	<input type="text"/>

Description of work to be carried out

Estimated Value

<input type="text"/>	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
Acknowledgement of this order is/is not required* <i>*delete as appropriate</i>	Net total (excluding VAT)

Ordered on behalf of the [Insert name of OO]

Signature

Name and Address

Position

Date

Telephone Number

NRSA/C7.1: Pro forma for Agreed Variation/Record of Change

**NEW ROADS AND STREET WORKS ACT 1991
AGREED VARIATION/RECORD OF CHANGE**

Appendix C7 to the Code of Practice (CoP)

'Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works)'

Date: Variation/Change No:

Scheme:

OO Ref No. (To be quoted on all correspondence)

Official Works Order Reference

Diversion Reference & Date

OO Ref	<input type="text"/>
Undertaker Ref	<input type="text"/>

OO Ref	<input type="text"/>
Undertaker Ref	<input type="text"/>

Undertaker

Contractor

Reason for Issue

Insert code as appropriate
H = Authority Liability
U = Undertaker Liability
O = Other

Variation Code #

Description of Varied Works

Estimated Value †

Add £
Omit £
Total £

Acknowledgement of this variation is/is not* required

**delete as appropriate*

Signature

OO Agent

Name and Address

Position

Signature

Undertaker

Name and Address

Position

† The OO Agent should attempt to secure the estimated value of all Agreed Variations from the Undertaker at the time of agreement.

NRSA/C9.1: Pro forma for Final Account

Page 1 of 2

**NEW ROADS AND STREET WORKS ACT 1991
FINAL ACCOUNT**

Appendix C9 to the Code of Practice (CoP)

'Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works)'

OO Name and Address:

OO Ref No: _____

(to be quoted on all correspondence)

Undertaker Ref: _____

(to be quoted on all correspondence)

**Date of Final
Account:** _____

Undertaker:

Scheme:

Diversion Ref/Description:

Actual Duration:

Cost Summary:

Direct Labour

(including Overheads @ %)

£ _____

Contract Labour

(including Overheads @ %)

£ _____

Plant Costs

(including Overheads @ %)

£ _____

Material Costs

(including Overheads @ %)

£ _____

£ _____

Other Costs *(please specify)*

(including Overheads @ %)

£ _____

£ _____

£ _____

£ _____

£ _____

Actual Project Costs (carried forward):

£ _____

**NEW ROADS AND STREET WORKS ACT 1991
FINAL ACCOUNT**

OO Ref No.

Actual Project Costs (brought forward): £ _____

Less deductions for:

Deferment of Renewal £ _____

Betterment £ _____

Materials £ _____

Total Deductions £ _____

Total Cost of Works (exclusive of measures undertaken by OO) £ _____ **(a)**

In the case of works covered by the cost sharing principle

18% Total Estimated Cost of Works (a) £ _____ **(b)**

18% of £..... for measures undertaken by
OO £ _____ **(c)**

Allowable Cost Share (b + c) £ _____ **(d)**

18% of the proportion of total cost funded by
third parties (As defined by the Regulations) £ _____ **(e)**

Net Allowable Cost Share (d - e) £ _____ **(f)**

Net Detailed Estimate (excluding VAT) (a - f) £ _____ **(g)**

Advance Payment if applicable (75% of C4 Detailed Estimate) £ _____ **(h)**

Any other adjustments £ _____ **(i)**

Payment/Refund now due (excluding VAT) (g – h ± i) £ _____

Value Added Tax at the current rate (%) £ _____

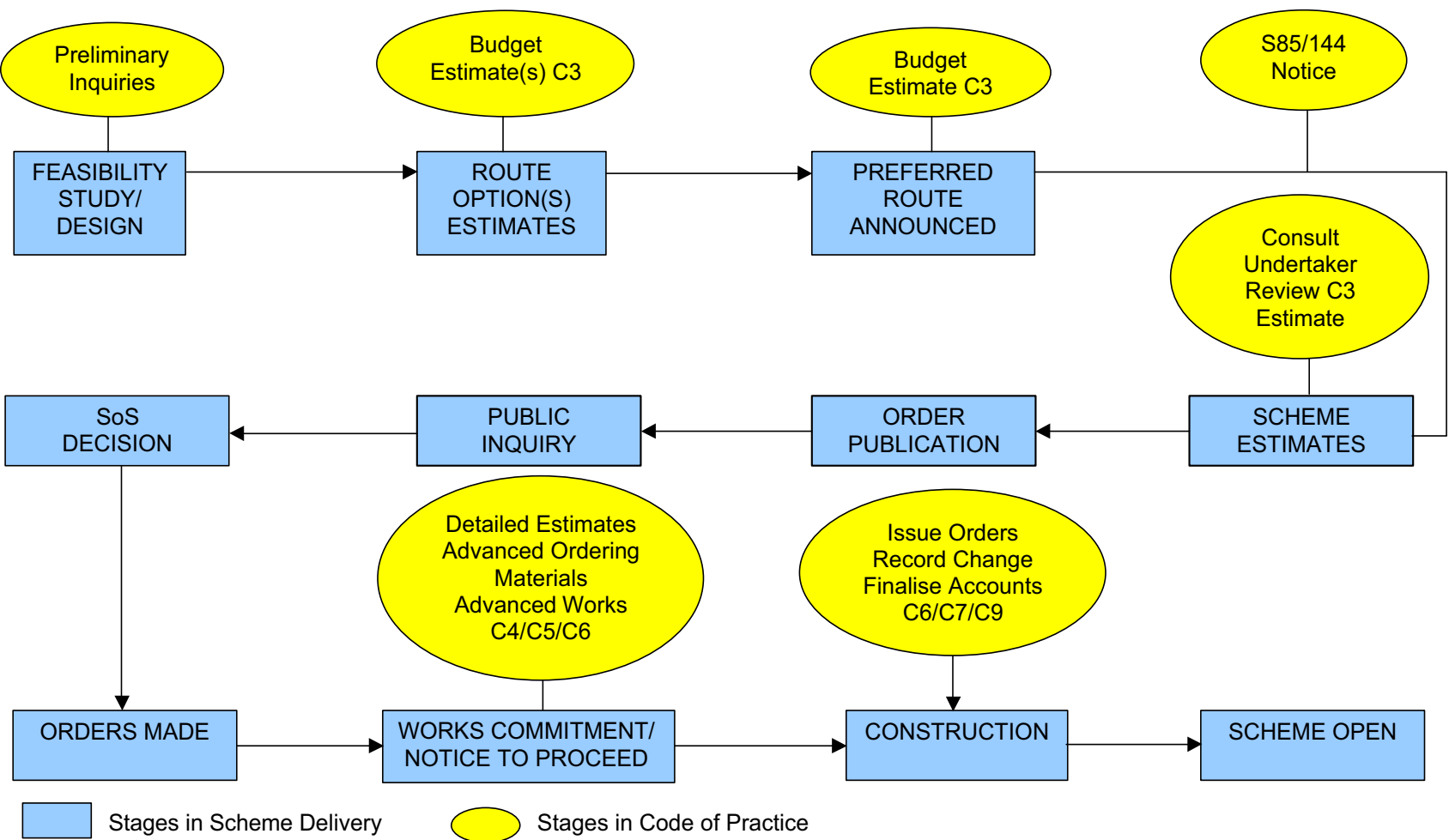
Payment/Refund now due (including VAT) £ _____

Notes:

1. Evidence to support the Final Account should be retained by the Undertaker.
2. The age and estimated full life of the apparatus should be made available to enable deferment of renewal calculations to be verified.
3. The details of the calculation of any betterment should be made available to enable verification.
4. Cost sharing percentages are in accordance with the Sharing of Costs of Works Regulations.
5. Refer to the current Recovery of Costs Regulations for the definition of Overheads, etc.

APPENDIX 3 FLOWCHART AND PROCEDURAL GUIDE

Standard Overseeing Organisation Process/NRSAWA Procedures for Diversionary Works



OUTLINE OF PROCEDURES IN PLANNING AND IMPLEMENTATION OF SCHEMES.
ENGLAND AND WALES ONLY

Stage	CoP C Ref	OO Agent Action	PS Action	OO Payments
Appointment of Agent	-	-	PS informs Undertakers of appointment of Agent (NRSWA/C1.1 for individual schemes or NRSWA/C1.2 for term maintenance contracts.)	
Preliminary Inquiries	C2	OO Agent makes Preliminary Inquiries (NRSWA/C2.1) and reports back to PS.	PS requests OO Agent to initiate Preliminary Inquiries and monitors responses thereto.	Responses to Preliminary Inquiries are provided free of charge.
Draft Schemes and Budget Estimates	C3	OO Agent requests draft schemes and budget estimates from Undertakers (NRSWA/C3.1 and NRSWA/C3.2).	PS reviews OO Agent report on Undertakers proposals and checks that the requirements of the CoP are being satisfied.	C3 budget estimates are provided free of charge.
		Joint discussion with the Undertaker to consider modifications to the scheme which may assist in programming/reducing costs for all parties. Where modifications are made or estimates become out-dated, updated C3 Budget Estimates should be obtained by the OO Agent.		
Section 85 Notice	-	OO Agent obtains copies of Section 85 notices and ensures that copies have been correctly incorporated in the Street Works Register and National Street Gazetteer.	PS contacts the OO designated person for Section 85 notices and provides them with all necessary information to allow the notice to be served.	
Detailed Scheme and Detailed Estimates	C4	OO Agent requests detailed scheme and estimates from Undertaker (NRSWA/C4.1 and NRSWA/C4.2). OO Agent compares budget and detailed estimates, if necessary clarifying any differences with the Undertaker before reporting to PS.	PS maintains a record of all detailed estimates provided by Undertaker. When satisfied with the proposed measures, PS approves detailed scheme and detailed estimates.	OO pays for C4 estimates once the estimate has been received in full. ¹ OO does not pay for initial C4 estimate in cases where no C3 estimate has been prepared by Undertaker.
		Further discussion with the Undertaker may take place to consider modifications to the scheme to assist in programming/reducing costs. Where modifications are made, revised C4 detailed estimates should be obtained by the OO Agent.		

Stage	CoP C Ref	OO Agent Action	PS Action	OO Payments
Scheme Commencement and Advance Orders	C5	OO Agent prepares letter (NRSWA/C5.1) and, if advance works are required, an Official Works Order (NRSWA/C6.2), and forwards to PS for issue to Undertaker.	PS notifies Undertakers of scheme commencement (NRSWA/C5.1), enclosing any advance orders (NRSWA/C6.2) signed by the relevant OO contractual delegation holder.	OO may make advance payment for any advance works in order to secure cost share. ¹ Where advance payment is considered appropriate, PS must obtain the appropriate authority within the OO.
		If not already reached, agreement is now required as to the specification of the necessary measures and by whom they are to be taken. A detailed estimate and programme should be submitted by the Undertaker, if not already provided.		
Issue of Main Orders	C6	OO Agent prepares letter (NRSWA/C6.1) and Official Works Order (NRSWA/C6.2) and forwards to PS.	PS issues letter (NRSWA/C6.1) to Undertaker, enclosing the Official Works Order (NRSWA/C6.2) signed by the relevant OO contractual delegation holder.	OO may make advance payment, either as a single payment or in instalments. Where advance payment is considered appropriate, PS must obtain the appropriate authority within the OO.
Construction	C7	OO Agent or the Undertaker may request variations to the agreed specification. OO Agent shall maintain a register of all requested variations. Agreed variations should be documented by the OO Agent (NRSWA/C7.1).	PS monitors variations.	OO pays allowable costs associated with changes as part of final account.
Financial Monitoring	C9	OO Agent obtains monthly reports on costs incurred and, if necessary, amends monthly payments accordingly.	PS compares monthly cost reports with detailed estimates plus variations and interrogates any discrepancies with OO Agent.	
Claims	C8	OO Agent informs PS immediately of any claims relating to Undertaker's works and maintains appropriate contemporary records.	PS monitors claims and discusses actions with OO Agent. PS agrees claims settlements where appropriate.	OO pays only where financial loss can be demonstrated.
Invoicing, Payment	C9	OO Agent checks that final account (NRSWA/C9.1) is correct. When satisfied with the final account the OO Agent certifies the final invoice and forwards to the PS for payment.	PS approves or obtains approval of the final account and passes for payment.	OO pays the balance of any sums outstanding upon completion of the works.

Note OO Agent - The OO's appointed representative. This may include such persons as the Project Manager, the Contractor or the Employer's Agent for individual schemes and Agent Authorities, Managing Agents or Managing Agent Contractors for term maintenance contracts.
Use of Standard Letters and Standard Pro forma are indicated by brackets.
¹ Payment will be made after delivery of services. Advanced payment may be made only to secure cost share.

OUTLINE OF PROCEDURES IN PLANNING AND IMPLEMENTATION OF SCHEMES.
SCOTLAND ONLY

Stage	CoP C Ref	OO Agent Action	PS Action	OO Payments
Appointment of Agent	-	-	PS informs Undertakers of appointment of Agent (NRSWA/C1.1 for individual schemes or NRSWA/C1.2 for term maintenance contracts.)	
Preliminary Inquiries	C2	OO Agent makes Preliminary Inquiries (NRSWA/C2.1) and reports back to PS.	PS requests OO Agent to initiate Preliminary Inquiries and monitors responses thereto.	Responses to Preliminary Inquiries are provided free of charge.
Draft Schemes and Budget Estimates	C3	OO Agent requests draft schemes and budget estimates from Undertakers (NRSWA/C3.1 and NRSWA/C3.2).	PS reviews OO Agent report on Undertakers proposals and checks that the requirements of the CoP are being satisfied.	C3 budget estimates are provided free of charge.
		Joint discussion with the Undertaker to consider modifications to the scheme which may assist in programming/reducing costs for all parties. Where modifications are made or estimates become out-dated, updated C3 Budget Estimates should be obtained by the OO Agent.		
Section 144 Notice	-	OO Agent obtains copies of Section 144 notices and ensures that copies have been correctly incorporated in the Scottish Road Works Register.	PS contacts the OO designated person for Section 144 notices and provides them with all necessary information to allow the notice to be served.	
Detailed Scheme and Detailed Estimates	C4	OO Agent requests detailed scheme and estimates from Undertaker (NRSWA/C4.1 and NRSWA/C4.2). OO Agent compares budget and detailed estimates, if necessary clarifying any differences with the Undertaker before reporting to PS.	PS maintains a record of all detailed estimates provided by Undertaker. When satisfied with the proposed measures, PS approves detailed scheme and detailed estimates.	OO pays for C4 estimates once the estimate has been received in full. ¹ OO does not pay for initial C4 estimate in cases where no C3 estimate has been prepared by Undertaker.
		Further discussion with the Undertaker may take place to consider modifications to the scheme to assist in programming/reducing costs. Where modifications are made, revised C4 detailed estimates should be obtained by the OO Agent.		

Stage	CoP C Ref	OO Agent Action	PS Action	OO Payments
Scheme Commencement and Advance Orders	C5	OO Agent prepares letter (NRSWA/C5.1) and, if advance works are required, an Official Works Order (NRSWA/C6.2), and forwards to PS for issue to Undertaker. OO Agent forwards to PS for issue to Undertaker or sends to Undertaker directly depending upon the appointed functions of the OO Agent.	Except where notification and orders are sent by the OO Agent, PS notifies Undertakers of scheme commencement (NRSWA/C5.1), enclosing any advance orders (NRSWA/C6.2) signed by the relevant OO contractual delegation holder.	OO or OO Agent may make advance payment for any advance works in order to secure cost share. ¹ Where advance payment is considered appropriate, PS must obtain the appropriate authority within the OO.
		If not already reached, agreement is now required as to the specification of the necessary measures and by whom they are to be taken. A detailed estimate and programme should be submitted by the Undertaker, if not already provided.		
Issue of Main Orders	C6	OO Agent prepares letter (NRSWA/C6.1) and Official Works Order (NRSWA/C6.2). OO Agent forwards to PS for issue to Undertaker or sends to Undertaker directly depending upon the appointed functions of the OO Agent.	Except where orders are sent by the OO Agent, PS issues letter (NRSWA/C6.1) to Undertaker, enclosing the Official Works Order (NRSWA/C6.2) signed by the relevant OO contractual delegation holder.	OO or OO Agent may make advance payment, either as a single payment or in instalments. Where advance payment is considered appropriate, PS must obtain the appropriate authority within the OO.
Construction	C7	OO Agent or the Undertaker may request variations to the agreed specification. OO Agent shall maintain a register of all requested variations. Agreed variations should be documented by the OO Agent (NRSWA/C7.1).	PS monitors variations.	OO or OO Agent makes payment for allowable costs associated with changes as part of final account.
Financial Monitoring	C9	OO Agent obtains monthly reports on costs incurred and, if necessary, amends monthly payments accordingly.	PS compares monthly cost reports with detailed estimates plus variations and interrogates any discrepancies with OO Agent.	
Claims	C8	OO Agent informs PS immediately of any claims relating to Undertaker's works and maintains appropriate contemporary records. OO Agent may discuss and agree claims settlements with Undertaker where appropriate.	PS monitors claims and discusses actions with OO Agent. PS agrees claims settlements where appropriate.	OO or OO Agent makes payment only where financial loss can be demonstrated.
Invoicing, Payment	C9	OO Agent checks that final account (NRSWA/C9.1) is correct. When satisfied with the final account the OO Agent certifies the final invoice for payment as appropriate.	PS approves or obtains approval of the final account and passes for payment as appropriate	OO or OO Agent makes payment of the balance of any sums outstanding upon completion of the works.

Note OO Agent - The OO's appointed representative. This may include such persons as the Project Manager, the Contractor or the Employer's Agent for individual schemes and Agent Authorities, Managing Agents or Managing Agent Contractors for term maintenance contracts.
Use of Standard Letters and Standard Pro forma are indicated by brackets.
¹ Payment will be made after delivery of services. Advanced payment may be made only to secure cost share.