



Off-site Highway Works, Accesses, Junctions, and Section 184 and 278

7.1 Vehicular crossings - Section 184 approval

To get your vehicle from the street and onto your drive you will need a properly constructed 'vehicular crossing', also known as a 'dropped kerb'. This is to prevent damage to the pavement and/or verge and to protect underground pipes and cables. You will require the County Council's approval and you may also need to get planning permission from your local district council, for instance if you live on a classified road.

You may employ a contractor of your choice to carry out these works, subject to them meeting certain requirements. Your contractor will need to apply to us for a permit to alter the highway outside your property and we will inspect the work to ensure that it meets our specification. A fee will apply.

7.2 Section 278 agreements, Highways Act 1980 ("the Act")

We use this section of the Act to allow you, the developer, to employ a contractor and for that contractor to work on the existing public highway in the same way as if we, the County Council, were carrying out the works instead usually to facilitate development. You are normally responsible for all aspects of the works on the public highway, from their design, through supervising construction and ensuring that the works are fully completed to our satisfaction.

It should be emphasised that works which directly affect the Strategic Road Network (SRN) will need to be considered separately by National Highways and are as such not bound by the contents of this document. The SRN both borders and runs through the County and at certain locations interfaces directly with the Local Road Network.

For the avoidance of doubt all works which affect the SRN shall be designed fully in accordance with the Design Manual for Roads and Bridges (DMRB) and specified in accordance with the Manual of Contract Documents for Highway Works (MCHW). National Highways should be contacted at an early stage.

7.2.1 Approvals and fees

As part of the Section 278 process, you are required to submit detailed design plans which will be checked and technically approved. Before carrying out any checking, the County Council will require payment of our initial fees for design checking and works inspection. This will usually be circa 50% of the likely total fee. The total fee will be 10% of the County Council's estimated cost of the works up to £100,000 and 6% thereafter. The minimum fee is £1,000. The balance of the administration and inspection fee will be payable prior to the signing of the agreement. Additional fees may apply.

7.2.2 Detailed design layouts

The submitted plans would usually be at a scale of 1:500 and include the following:

- Site clearance details.
- Drainage layout: Pipe runs, manhole and gully positions. Pipes intended for adoption should be highlighted.

- Earthwork details.
- Carriageway and footway construction details indicating areas of different pavement types, areas of overlay, reconstruction, planing etc.
- Kerbing and edging details.
- Traffic sign positions and road markings. Each sign should have an accompanying schedule giving post sizes, mounting heights, illumination details, foundation details etc.
- Landscaping proposals.
- Street lighting positions.
- Fencing proposals showing highway boundary positions and visibility splays.
- Safety fence layout.
- Structure positions and orientation.
- Electrical works i.e., street lighting, illuminated signing, trenches and cabling.
- Bus stop locations and bus stop infrastructure.

7.2.3 Vertical design

- Longitudinal sections showing centreline and channels in relation to existing ground levels.
- Proposed gradients and k values for sag and crest of curves, horizontal schematic showing curve radii, transitions.
- Cross sections showing proposed levels and profile in relation to existing and proposed levels.
- Boundaries.

7.2.4 Junction design

7.2.4.1 Roundabouts:

- Provide 1:200 or 1:500 plan showing proposed spot levels, contours, and crown lines.
- Provide design checklist to ensure geometric compliance with DMRB – CD 116 Geometric Design of Roundabouts;
- Provide existing, generated & forecast turning flows for the morning and evening peak periods.
- Provide traffic reserve capacity calculations for the AM & PM peak periods using the latest version of ARCADY.
- Demonstrate deflection.
- Show visibility lines.
- Provide segregation for cyclists and pedestrians as required.

7.2.4.2 Priority junctions:

- Provide 1:200 or 1:500 plan showing proposed spot levels, contours, and crown lines.
- Provide design checklist to ensure geometric compliance with DMRB – CD 123 Geometric design of at-grade priority and signal-controlled junctions.
- Provide existing, generated & forecast turning flows for the morning and evening peak periods.
- Provide traffic reserve capacity calculations for the AM & PM peak periods using the latest version of PICADY
- Justification for the chosen specific layout.
- Provide suitable routes for pedestrians and cyclists as required.

7.2.4.3 Traffic signal junctions:

- Provide a 1:500 or 1:200 plan on a topographical base showing signal heads, pole position, ducting etc.
- Provide existing, generated and forecast turning flows for the morning and evening peak periods.
- Provide appropriate traffic reserve capacity calculations for AM and PM peak periods using LINSIG.
- Ensure that design complies fully with DMRB – CD 123 Geometric design of at-grade priority and signal-controlled junctions.

7.2.4.4 Pedestrian crossing facility

- Provide a 1:500 or 1:200 plan on a topographical base, showing signal heads, pole position, ducting etc.
- Ensure that design complies with the following standards/advisory notes (as appropriate),
 - Traffic Advisory Leaflet – 1/02 The Installation of Puffin Pedestrian Crossings.
 - Traffic Advisory Leaflet – 04/98 Toucan Crossing Development.
 - Traffic Advisory Leaflet –10/93 ‘Toucan’ An unsegregated Crossing for Pedestrians and Cyclists.
 - Statutory Instruments – 1997 No.2400- Road Traffic – The Zebra, Pelican, and Puffin Pedestrian Crossings Regulations & General Directions 1997.
 - Design Manual for Roads and Bridges (DMRB) – TD 101 Traffic Signalling Systems.
 - DMRB (Vol 8) – TA 15/07 – Pedestrian Facilities at Traffic Signal Installations.
 - DMRB (Vol 6) – TA 86/03 – Layout at Large Signal Controlled Junctions.
 - DMRB – CD 143 Designing for Walking, Cycling and Horse-Riding.
 - DfT Guidance on the use of Tactile Paving Surfaces.

7.2.5 Statutory Undertakers (for example gas, water, cable TV)

Plans showing existing apparatus along with any diversion/protection proposals.

7.2.6 Structures

Design must comply with agreed Approval in Principle (AIP). All design/check certificates in accordance with DMRB CG 300 Technical Approval of Highway Structures shall be supplied for us to endorse.

The following drawings are required:

General arrangement:

- Detailed design – details should include: dimensions, levels, materials and finishes, drainage and service ducts, parapet details, earthwork details, foundation details.
- Reinforcement details showing – cover to steel and reinforcement details in accordance with BS 8666:2005 incorporating amendment No.1.

7.2.7 Other information

The following supporting information is also required where relevant to the design submission:

Geotechnical Information:

- Initial ground investigation proposals.
- Desk study information including preliminary deep borehole work.
- Ground investigation including detailed proposals with borehole locations, schedules, long sections, and laboratory testing philosophy.
- Factual report.
- Interpretative report including calculations.
- Earthworks design including drawings and specification.
- Structural foundation design.

'Buildability':

- Does the design allow for the contractor's input?
- Provide evidence that construction issues have been addressed in the design, for example 'Beany' blocks constructed to default radii, manholes positioned out of the carriageway.

Traffic management:

- Are road closures required?
- Provide information for both local and heavy diversion routes (where appropriate).
- Give evidence on the provisions made for local transport services during the construction phase.

Drainage design:

- Drainage design calculations/output.
- Gully spacing design output.
- Provide information on the depths of cover of lines.
- Provide invert and chamber sizing of access chamber.
- Provide discharge calculation at the outfalls.
- Provide details of retention storage.
- Provide calculations and information on mechanical elements e.g., pumps and throttles.
- Provide information on petrol interceptors.

Landscaping:

- Provide information on planting strategy.
- Provide drawing of planting areas.
- Provide planting specifications.
- Give information on the preparation works and soil types to be used.
- Provide listing of all species of plants and density.
- Provide maintenance regime.

Construction Design and Management Regulations:

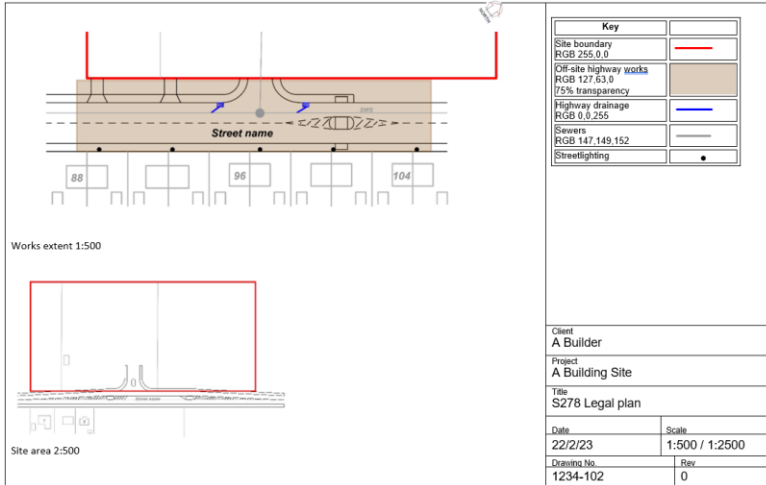
- Provide all risk assessment and a copy of the pre-tender health and safety plan.
- Provide a copy of F10.

Other Supporting Information Required:

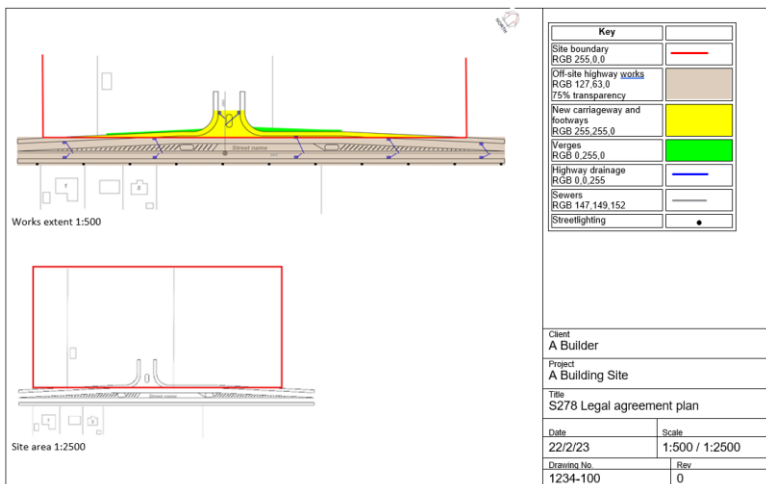
- Traffic flows.
- Carriageway construction design calculation.
- CCTV videos of any existing drainage used as outfall/connection.
- Sign schedules.
- Autotrak plots for HGV manoeuvres at appropriate locations.
- Stage 2 safety audit problems, recommendations, and designer's responses where appropriate.
- Standard drawings should be used except where no appropriate detail covers the proposal.

7.2.8 Legal plans

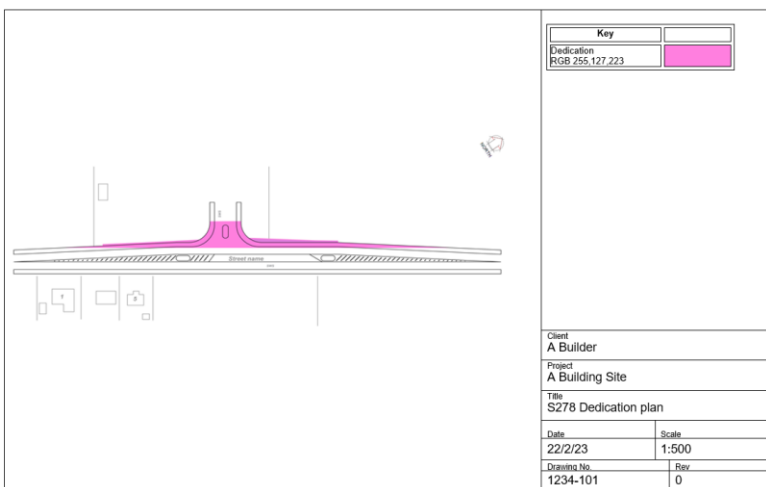
A plan will be required for insertion into the Section 278 legal agreement that identifies the extent of the highway works, any new highway required because of the works, and the site boundary. Where new highway would be created, a highway dedication plan is also required.



S278 legal plan



S278 legal plan that includes new highway



S278 highway dedication plan

The County Council's legal and highway dedication plan colouring requirements can be viewed at Appendix G, Figures A, B, and C.

7.2.8 Technical Approval

The County Council will only issue technical approval after all additional information and requested amendments have been received.

We will prepare all documentation for the Section 278 agreement. Details to be provided at this time include:

- the name and address of the landowner (if a highway dedication is required),
- your name and address as the developer,
- the name and address of any bondsman or confirmation of a cash deposit,
- the name and address of your solicitor including an email address, (note: legal representation is not mandatory, but strongly recommended), and
- proof of an intention to enter into a Section 104 agreement and any deeds of easements (if required).

Our solicitor will seek an undertaking from your solicitor confirming that our legal fees will be met.

7.2.9 Pre-commencement

You must not begin construction unless and until:

- we have given you technical approval,
- the Section 278 agreement has been completed and signed and an appropriate bond is set in place,
- you have notified the Health and Safety Executive that you are client for the works for the purposes of the Construction (Design and Management) Regulations,
- all necessary fees have been paid to us,
- you have complied with the New Road and Street Works Act minimum notification periods,
- the contractor (including any subcontractor) has been approved,
- You have demonstrated that £5m public liability insurance is in place including indemnity to principal, and
- a pre-start meeting has been held.

7.2.10 Site inspection

You are responsible for the day-to-day supervision of the road works construction. We will only inspect the works to check that they are being constructed in accordance with the approved drawings and our requirements. You must always give the County Council's representative access to the works in progress. If problems arise, we will be happy to discuss possible solutions with you, but it will still be your responsibility to instruct your contractor and make sure that the works are satisfactorily completed in accordance with our requirements.

7.2.11 Substantial completion

We will issue the first certificate of completion once:

- you have substantially completed the roadworks to our satisfaction,
- you have completed all street lighting to our satisfaction and provided up to date electrical test certificates,
- you have provided us with a CCTV survey of highway drainage runs and connections,
- any new planted landscaping areas, grassed areas, trees, shrubs and so on that we are to maintain have been fully planted and established,

- the works (including any existing and new planted landscaping areas and so on) have been jointly inspected (that is by us, you and your contractor) and no significant defects have been identified, or where they have, you have agreed to remedy them to our satisfaction, and
- a stage 3 safety audit has been completed and all changes that we require have been made satisfactorily.

When we issue a first certificate, the amount of bond may be reduced at the County Council's discretion. However, the bond cannot be reduced to a value less than any commuted sums that are included within the agreement.

You will then be responsible for maintaining the roadworks for a minimum period, usually twelve months (soft landscaping is usually subject to a 3-year maintenance period). This allows any defects in the works to become apparent after they are brought into use.

7.2.12 Final Completion

We will issue a second certificate of completion when the following actions have taken place:

- You must contact us at the end of the maintenance period to arrange a further joint inspection of the road works (including any landscape planting, trees, grassed areas and so on). We will issue you with a list of any outstanding remedial works we require you to do, which you must then complete to our satisfaction.
- You must have maintained the road works to our satisfaction during the maintenance period.
- You must provide us with proof of adoption for any drainage and sewers, as issued by the relevant water company.
- You must pay us any commuted sums and outstanding charges that are required.
- You must provide us with 'as built' drawings, preferably electronically or on a memory stick.
- You must provide us with up-to-date electrical test certificates.
- You must provide us with a CCTV survey of highway drainage runs and connections.
- You must provide us with the health and safety file, electronically or on a memory stick, produced in line with the Construction (Design and Management) Regulations 2015 (CDM).

After all of the above has been done to our satisfaction, we will:

- issue a second certificate of final completion,
- inform you that the bond can be cancelled, and
- adopt all areas to be dedicated within the Section 278 agreement as highway to be maintained at public expense.

[End]