



Access - Construction Specification

Land adjacent Arthur Lane, Bury

December 2025



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Revision History

Revision	Revision date	Details	Authorised	Name	Position
P01	12.12.2025	First Issue	✓	Robert Gregg	Director

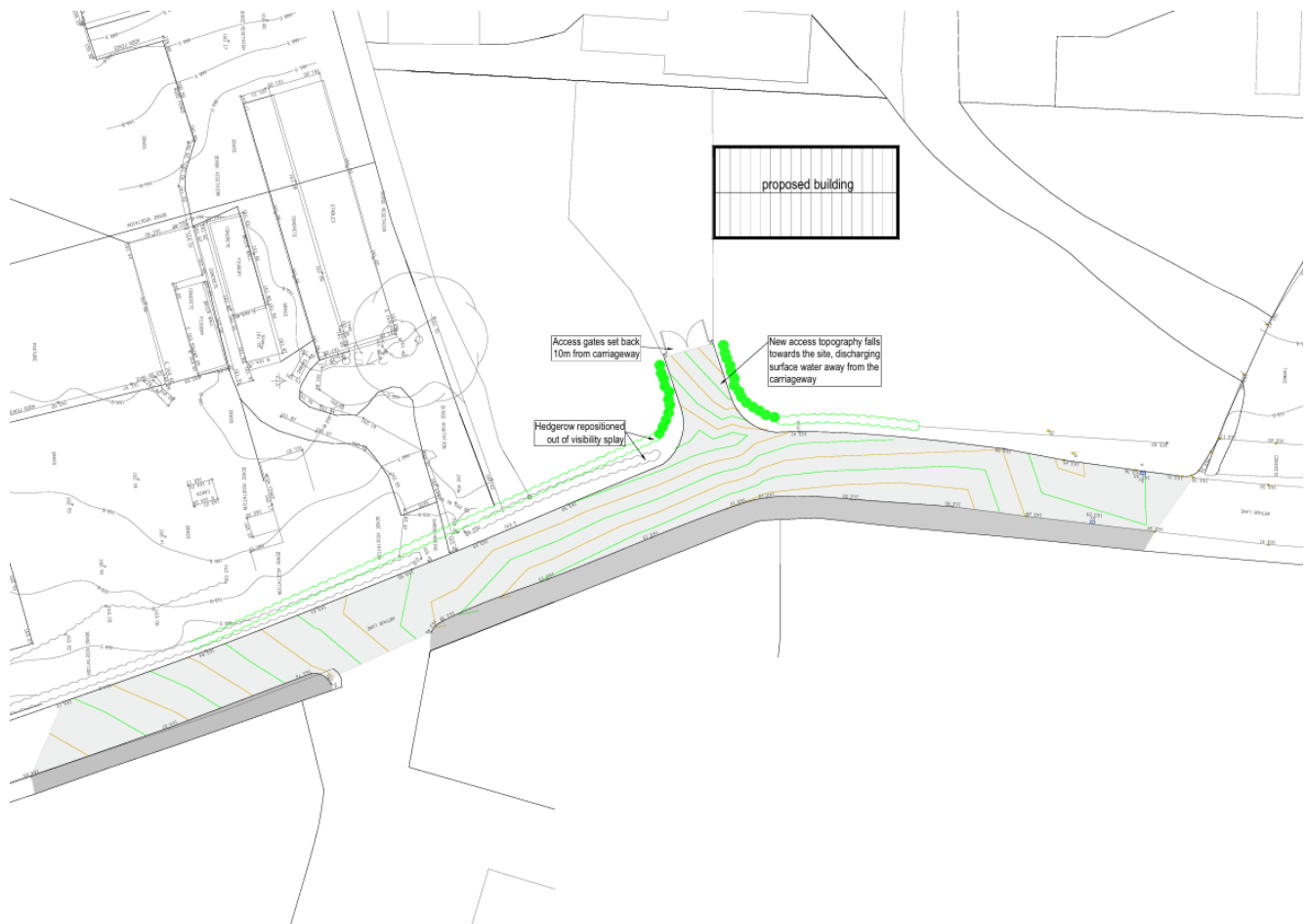
Distribution List

Hard Copies	PDF Required	Association / Company Name
	X	Gary Spillard
	X	Steven Hartley

INTRODUCTION

Countywide Consulting Engineers have been appointed by Gary Spillard (hereafter referred to as *the Applicant*) to prepare this Construction Specification in support of an application to discharge planning condition number 10 associated planning application 70626 located at Land at 7 Arthur Lane, Bury, BL2 5PR.

The approved development comprises the Demolition of existing stables/outbuildings and erection of 1 no. dwelling, with a new access off Arthur Lane to be constructed under Section 50 of the Highways Act 1980.



1. GENERAL

Specification Basis

This Specification is derived from the National Highways *Specification for Highway Works* and the *Code of Practice for Highway Maintenance Management*, supplemented by Bury Metropolitan Borough Council (BMBC) requirements. Reference may need to be made to British and European Standards for full descriptions of work and materials. Where a development includes any new or existing highway structures, the Developer shall obtain from the Director of Operations (Highways) the current requirements for such structures, including specification and procedures for obtaining technical approval under Section 278 of the Highways Act 1980.

Nomenclature

Terminology shall follow BS 6100 (Glossary of Building and Civil Engineering Terms - Highway Engineering). “The Engineer” refers to the person(s) acting on behalf of Bury Metropolitan Borough Council’s Highways Authority. Highway types and parts are as defined in the Highways Act 1980.

Quality Assurance and Standards

All materials shall comply with the latest British or Designated European Standards and be transported, stored, and incorporated in accordance with those standards. Testing shall follow the relevant British or Designated European Standard. Where work or materials are covered by a Quality Assurance Scheme, only certified products shall be used. Compliance with UK Construction Product Regulations (SI No. 465, 2019) is mandatory. Products covered by UK Designated Standards shall carry UKCA marking and a Declaration of Performance. CE-marked products will be accepted only until 31 December 2024.

General Requirements

- All works (roads, footways, drainage, lighting, structures) shall be executed to the satisfaction of the Engineer, with full access for inspection and testing at all stages.
- Works shall comply with approved drawings unless otherwise agreed.
- Any interference with highways, fences, surfaces, or furniture shall be reinstated to the Engineer’s satisfaction.
- Services, pipes, culverts, and sewers shall be supported, protected, or re-laid as directed by statutory undertakers. Damage must be reported immediately.
- Surplus materials shall be removed off-site; the site shall be left in a condition approved by the Engineer.

- Highways adjacent to the site used for construction traffic shall be kept clean and free from debris.
- Access to all existing properties bordering the site must be maintained throughout construction.
- The developer shall submit details of construction traffic routes for approval prior to commencement.
- The developer must obtain a Section 50 licence for any apparatus in the highway and comply with Bury's (BMBC) permit scheme for works affecting the public highway.

Works on Existing Highways

Any works to existing adopted highways must be carried out under a Section 278 Agreement of the Highways Act 1980 or other appropriate consent/licence. The Developer shall obtain technical approval from Bury Metropolitan Borough Council's Highways Authority before commencement.

Traffic Management

Works on or adjacent to a public highway shall comply with Chapter 8 of the Traffic Signs Manual and *Safety at Street Works and Road Works: A Code of Practice*.

- A Temporary Traffic Regulation Order (TTRO) may be required.
- Where one-way traffic is unavoidable, traffic shall be controlled by vehicle-actuated signals or other approved means.
- If a footway is obstructed, an alternative safe route shall be provided, properly signed, guarded, and lit.
- Reference shall be made to DfT Inclusive Mobility guidance for accessibility compliance.

Excavation & Structures

Approval of the Engineer must be obtained before excavation in embankments or ground supporting the highway. Arrangements for the design of any structure must be agreed with the Engineer. The Engineer must be informed before any works commence in an existing public highway.

Permit Scheme Compliance

Excavation and reinstatement of highway surfaces shall comply with The Greater Manchester Permit Scheme for Road and Street Works.

- Submission and approval of a PA1 form for road space booking is required.
- Section 50 licence must be obtained for apparatus in the highway.

Mud, Debris, and Dust on the Public Highway

Highways in the vicinity of the works must be kept free from mud, debris, and dust resulting from the works. Measures shall be taken to protect the public from nuisance.

- Warning signs must be displayed while work is in progress.
- Carriageways, footways, and drains affected shall be regularly cleaned.
- Compliance with Bury's Environmental Health requirements and *Greater Manchester Permit Scheme* conditions is mandatory.

Control of Noise

The best practicable means shall be used to prevent or reduce noise during execution of works, including:

- Effective silencers on power-operated plant and equipment.
- Purpose-made mufflers on pneumatic breakers or drills.
- Compliance with the Control of Pollution Act 1974 and Bury Council's noise control guidance.

Prohibition of Highway Use for Storage

Existing public highways shall not be used for stockpiling materials, plant, or equipment.

- The Contractor shall be liable for reinstatement costs if damage occurs.
- Temporary storage areas must be agreed with the Engineer and comply with Bury's permit scheme.

Order of Work

The construction programme shall cater for the following:

Pre-Construction:

- Complete all works within carriageway area (drainage, sewerage, statutory undertakers' mains, service ducts, manholes, and street-lighting ducts) before highway construction begins.

Stage 1:

- Formation preparation, sub-base, roadbase, kerbs, channels, and gullies.
- Mark all pipe, duct, and cable connections.
- Install street lighting prior to occupation of dwellings.
- Proceed with site development and service connections.

Stage 2:

- Rectify faults including any potential settlement and apply binder course regulating layer.
- Complete carriageway surfacing.

Statutory Undertakers Equipment

Layout and positioning of statutory undertakers' equipment shall comply with:

- *Street Works UK – Volume 1: Guidance on the Positioning and Colour Coding of Underground Utilities Apparatus*
- *Street Works UK – Volume 2: Guidelines on the Positioning of Underground Utilities Apparatus for New Development Site.*

The Developer must coordinate with all statutory undertakers and submit a composite utilities layout for approval by the Engineer.

A Services Search Report has been prepared and submitted alongside this specification. All works shall comply with the findings and requirements of statutory undertakers as detailed within the submitted Services Search Report.

Design Criteria

Development proposals shall satisfy the principles of:

- Manual for Streets and Manual for Streets 2.
- Inclusive Mobility guidance for accessibility.
- Bury Metropolitan Council Residential Design Guide.
- Lighting designs shall comply with BS 5489-1:2020 and Bury Council's Code of Practice for Highway Electrical Systems.

Variations will only be approved in exceptional circumstances (e.g., topography constraints) and must be agreed with the Engineer.

Supervision

The Developer or works promoter shall appoint a competent site representative. The Engineer reserves the right to request removal of any representative deemed unsatisfactory.

- The representative must be available for site meetings and inspections at all times.
- Contact details shall be provided prior to commencement of works.

Materials and Workmanship

Prior to incorporating any material into the permanent works, the Developer shall submit to the Engineer for approval:

- A list of proposed suppliers and sources of materials.
- Samples of materials where required representative of those to be used.
- Any change of source must be approved by the Engineer before use.

Testing and Inspection

During construction, the Engineer may carry out testing of materials at their discretion.

- The Developer shall allow full access for testing and inspection, at the Developer's expense.
- Any components, materials, tackle, or workmanship deemed unsatisfactory shall be rejected.
- Rejected items must be replaced with acceptable alternatives at no additional cost to the Council.

Access for Testing

The Developer shall permit the Engineer to access all components, materials, or tackle intended for use, whether on-site or on highway land.

- The Engineer may require removal of parts for analysis and testing.
- All testing shall comply with relevant British Standards and Bury Council's quality assurance requirements.

2. CEMENT, MORTAR & GROUT

General

Unless otherwise stated, any reference to a concrete mix in this Specification shall be deemed to refer to concrete complying with this Clause. When a concrete mix is specified, it shall comply with **BS 5328** and may be purchased from an approved ready-mixed concrete supplier or site-batched and mixed.

Cement for Concrete

Cement shall comply with BS EN 197-1:2011 and comprise Ordinary Portland Cement combined with ground granulated blast furnace slag (BS EN 15167-1:2006) or pulverised-fuel ash (BS EN 450-1:2012) as permitted in BS 8500-2:2015.

Suitable storage and protection against atmospheric influences shall be provided to the satisfaction of the Engineer.

Bulk cement use requires Engineer approval of:

- Transport and container methods.
- Discharge and storage arrangements.

Aggregates

Aggregates for concrete shall comply with BS EN 12620:2002 and be from sources approved by the Engineer.

Water

Only fresh, clean water from a public utility mains supply or other approved source shall be used.

If not using mains water, the Developer shall provide a BS EN 1008 compliance certificate every three months, with testing by an approved organisation.

Mortar

Cement mortar shall consist of Ordinary Portland Cement (BS EN 197-1:2011) and sand (BS EN 13139:2002) mixed in nominal volume proportions:

- Pipe joints: 1 part cement : 3 parts sand
- Rendering, fillets, grouting, margins: 1 part cement : 2 parts sand
- Brickwork, kerbs, manholes: 1 part cement : 3 parts sand

Polyester Resin Bedding Mortars

- Must be based on thermosetting organic polymers, mixed per manufacturer's instructions.
- Fillers/aggregates shall be pre-bagged, dry, and factory proportioned. No additional fillers permitted.
- Mixing, placing, and curing shall follow manufacturer's written instructions.
- Mortar must be used fresh; re-mixing after setting is prohibited.

Cement Grout

Cement grout shall consist of Portland cement and water mixed at 1 part cement: 1.5 parts water by volume:

- Grout must be used within one hour of mixing.
- Sulphate-resisting Portland cement shall be used where required by the Engineer.

3. EARTHWORKS

General

Excavation and filling shall be carried out strictly in accordance with the drawings approved by the Engineer and any additional requirements set by Bury Metropolitan Borough Council.

Turf and Topsoil

All turf and topsoil shall be removed from the full width of carriageways and footways, and from the underside of any proposed embankments.

Unsuitable Material

The following materials are unsuitable for highway works and shall be disposed of off-site in accordance with approved waste management procedures:

- Peat, swamp, marsh, or bog material
- Logs, stumps, and perishable material
- Frozen material
- Wet clay and silt
- Chemical or industrial organic waste
- Materials susceptible to spontaneous combustion
- Any material deemed unacceptable by the Engineer

For classification and disposal, the contractor shall follow **MCHW Notes for Guidance NG601**.

Filling Material

Material intended for filling shall be kept separate and protected from contamination, weathering, or moisture variation. Acceptable filling materials include:

- **Suitable excavated material:** Sub-soil approved by the Engineer
- **Granular fill:** Well-graded broken rock, weathered upper rock, sand, gravel, or broken hardcore (max size 125 mm)
- **Rock fill:** Quarried from an approved source, max size 125 mm
- **Hardcore:** Clean, angular, free from dust, refuse, or organic matter; broken stone or bricks from approved sources. Demolition material must be free from lime, plaster, timber, or rubbish and approved before use.
- **Subgrade improvement (capping) layer:** Approved crushed rock, broken brick, concrete, or gravel, well graded from 125 mm down to 63 µm sieve.

Fill

Fill shall consist of suitable excavated material or granular filling material.

Fill shall be spread and compacted in layers not exceeding **225 mm thick after compaction**, with a minimum of **8 complete passes** by:

- A smooth-wheel roller weighing at least **8 tonnes**, or
- A vibratory roller of at least **3 tonnes mass**.

Embankments shall be built up evenly over the full width, with a camber or fall to prevent water ponding.

Site traffic shall be directed across the entire embankment surface to avoid overstressing any area.

Suitable groundwater drainage shall be provided at the toe of embankments, subject to Engineer approval.

Any fill that deteriorates during construction shall be removed.

Sub-formation

Where a sub-grade improvement (capping) layer is required, the surface of the embankment or excavation shall be trimmed to a tolerance of **+20 mm / -30 mm** immediately before placing the material.

Road Pavements

- Carriageways shall generally be constructed using:
- Bitumen-bound materials
- Hydraulically bound materials
- Combinations of bitumen and hydraulically bound materials
- Block paving (where specified)

All materials and workmanship shall comply with:

- Relevant British Standards
- National Highways *Manual of Contract Documents for Highway Works (MCHW)*
- UKCA marking requirements
- Additional site-specific appendices may be required for approval and inclusion in the agreement.

Designs in this specification apply to roads carrying up to **10 million standard axles (msa)**.

Roads exceeding 10 msa require a full pavement design in accordance with **Design Manual for Roads and Bridges (DMRB)**, based on 40-year design traffic agreed with Bury Metropolitan Borough Council.

Service Ducts and Pipework

Service ducts and pipework shall, wherever practicable, be located outside the road construction zone.

Where this is not possible, service crossings must be installed prior to road construction and adequately protected from damage.

All ducting shall comply with *Street Works UK* guidelines and be clearly marked for future identification.

Carriageway Pavement Foundations

The design subgrade California Bearing Ratio (CBR) shall be used in pavement foundation design.

The design CBR shall be the lower of short-term and long-term CBR values:

- Short-term CBR: Estimated during construction.
- Long-term CBR: Value at equilibrium under pavement loading.

Testing shall comply with BS 1377-9 (short-term) and BS 1377-4 (long-term).

Minimum testing frequency: 10 tests per foundation area, max spacing 60 m along each road lane.

Alternative methods (e.g., MCHW Clause 882) may be accepted subject to Engineer approval.

If long-term CBR < 5%, a capping layer (in-situ stabilised or imported material) will normally be required.

Sub-base Materials

Unbound sub-base materials shall comply with MCHW Clauses 803, 804, 805, or 807 and be laid, compacted, and trafficked per Clause 802.

Bound sub-base materials shall comply with MCHW Clauses 810, 811, and 812.

Mixed in-plant materials shall comply with MCHW Clauses 814, 815, 820, and 821–835 as applicable.

Mixed in-place materials shall comply with MCHW Clause 816 and Clauses 821, 822, or 840 as applicable.

All materials must carry UKCA marking and meet Bury Council's quality assurance requirements.

Laying Sub-base

Granular Sub-base

Spread by mechanical plant to an even depth so that after compaction the layer thickness is not less than 100 mm and not greater than 150 mm.

Bound Sub-base

Layer thickness shall be not less than 150 mm and not greater than 250 mm.

Compaction

Each layer shall be compacted using a 6–8 tonne roller until the surface is well closed and stable under the roller.

The final layer shall receive at least 8 passes of the roller and be finished to a smooth, even surface, free from irregularities and loose material.

Tolerance: +10 mm / -30 mm from the true level.

Verification of Foundation Surface Modulus

Testing shall be carried out using Lightweight Deflectometer (LWD) or Falling Weight Deflectometer (FWD) at 10 m centres in both wheel tracks.

Target Modulus:

- Unbound foundations: ≥ 100 MPa
- Bound foundations: ≥ 100 MPa

Areas failing to meet the target shall be subject to further compaction (unbound) or curing (bound) and re-tested.

Persistent failures shall be removed and replaced.

4. PLACING, COMPACTION & TESTING OF PAVEMENT MIXTURES

General

All requirements shall comply with BS 594987 for bituminous mixtures and relevant MCHW Clauses.

Pavement mixtures shall be laid in compliance with BS EN ISO 9001.

Full interlayer bonding between pavement layers is required:

Surfaces must be clean, dry, and uncontaminated.

Apply bond coat or tack coat per MCHW Clause 920 before placing bituminous material on any bound substrate.

Bond coat is mandatory for surface course layers <40 mm or when laid on concrete.

Transporting

Bituminous mixtures shall be transported per BS 594987 and kept covered until tipping.

Laying

Mixtures shall be spread, levelled, and tamped by a self-propelled paving machine.

Cold material below manufacturer's recommended temperature shall be removed, and a perpendicular joint formed per MCHW Clause 903.35.

Hand placing is permitted only:

- For regulating courses of irregular shape.
- In confined spaces where pavers cannot operate.
- For mastic asphalt.
- Hand-raking or hand-spreading is limited to:
 - Edges, gullies, manholes, ironwork.
 - Approaches to expansion joints.

Finished mat must be free from dragging, tearing, and segregation.

Mixtures from multiple sources must have equivalent laying and compaction characteristics.

Special requirements apply when paving onto bridge deck waterproofing systems.

Compaction

Compaction shall comply with BS 594987, MCHW Clause 903, and mixture-specific requirements in MCHW Clause 929.

Begin compaction without delay.

Rollers:

- General: per BS 594987.
- SMA mixtures: use vibrating steel roller in non-vibrating mode (≥ 9 tonnes, e.g., Bomag 161 or HAMM HD90) or 3-point dead weight roller as lead roller, plus smaller tandem roller for finishing.
- Minimum 10 passes required.

Tolerances

Previous course must be properly shaped and compacted.

Permitted deviations:

- Sub-base to base: +10 / -30 mm
- Base to binder: ± 15 mm
- Binder to surface: ± 6 mm
- Surface course: ± 6 mm

Cumulative tolerance:

- Pavement thickness reduction (excluding sub-base): max 15 mm
- Surface course thickness reduction: max 5 mm

Surface Regularity

Apply MCHW Clause 702 Category A requirements to all vehicular carriageways.

Joints

Longitudinal joints in new, widened, or realigned pavements must be outside wheel track zones:

- For 3.65 m lanes: wheel track zones = 0.5–1.1 m and 2.55–3.15 m from nearside lane marking.
- For other widths: zones = 0.6 m wide, offset 0.72 m from lane centre.

Resurfacing: joints in surface course shall coincide with lane edge, marking, or centre.

Joints must not coincide with wheel paths.

Stepping of joints: offset by 300 mm from parallel joints below (or min 150 mm if layer <150 mm thick).

Cold edges shall be treated with:

- Hot elastomeric polymer-modified binder (BS EN 14023, penetration Class 4), or
- Polymer-modified bitumen emulsion (BS EN 13808, cohesion Class 4).
- Binder courses and bases: air voids near joints $\leq 2\%$ above max permitted limit.
- Sealant applied within 24 hours of joint formation:
- Residual bitumen $\geq 0.50 \text{ kg/m}^2$, 75 mm either side of joint.

Sealant options: hot polymer-modified binder (BS EN 14023) or bitumen emulsion (BS EN 13808, Class 4).

Regulating Course

Produced and laid per MCHW Clause 907.

5. KERBS, CHANNELS & EDGE RESTRAINTS

Precast Concrete Kerbs, Channels and Edgings

Kerbs, channels, and edgings shall comply with BS EN 1339 and be manufactured in pressed concrete with coarse aggregate having a 10% fines value ≥ 120 kN.

- Standard kerbs: 125 mm x 255 mm half-battered ($12\frac{1}{2}^\circ$).
- Where grass verge lies behind kerb line: 125 mm x 255 mm 45° splayed kerbs may be required.
- Bullnose kerbs for domestic vehicle crossings and pedestrian crossings: 125 mm x 150 mm.
- Special dropper (taper) kerbs shall reduce kerb face for crossings on straight runs.
- Correct radius kerbs shall be used for curves ≤ 12 m radius.

Precast concrete channels: 230 mm x 75 mm, bedded on ST1 concrete 225 mm thick, used where longitudinal falls are inadequate for drainage.

False falls shall be created by adjusting kerb heights (75 mm at summits, 125 mm at valleys).

Channels formed in asphalt will not be accepted.

Edgings: 50 mm x 200 mm pressed concrete, flat-topped square section.

Kerb Foundations

Kerbs shall be set on a bed 275 mm wide x 150 mm deep of cast in-situ ST1 concrete.

Immediately after laying, kerbs shall be backed and/or haunched with ST1 concrete, adequately compacted.

Kerb and Edging Lines

Kerb and edging lines shall be set out with road pins and string lines to approved drawings.

Kerbs and edgings shall be laid accurately to achieve smooth flowing alignment, free from sudden deviations, within ± 13 mm tolerance.

Kerb upstand: 100 mm to 125 mm on completion.

Surface level deviation: ± 6 mm from design level.

Longitudinal regularity: max 3 mm in 3 m when checked with a straightedge.

