

Streetscape Design Manual

AUGUST 06

Nottingham City Centre



Safer, cleaner, ambitious
Nottingham
A city we're all proud of

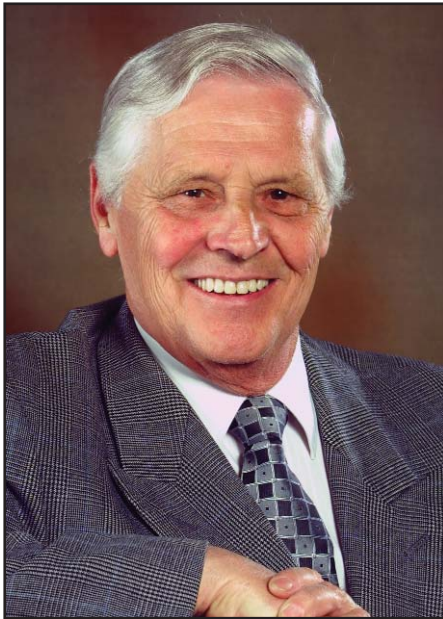


Nottingham
City Council

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Foreword



Cllr. Brian Grocock, Portfolio Holder for
Transport & Street Services

“The City Council is committed to developing a vibrant and elegant city centre that rivals the best in the world. Carefully designed and maintained streets are essential to achieve this. We will manage streets so that pedestrians can move around easily, quickly and safely. High quality paving and street furniture will complement the surrounding buildings and set the context for new development. Thorough and timely maintenance will ensure that the standards endure.”

Why are quality streets important?

Improving the quality of streets allows us to fulfil a range of corporate objectives that matter to the people of Nottingham:

- Provides a setting that encourages public activity.
- Provides a canvas for improving the quality of buildings and helps us insist that developers meet our high standards when areas around their buildings are landscaped.
- Enhances the value of property and the profitability of businesses by increasing footfall.
- Pedestrians move freely through a clear, obstacle-free network of streets.
- Helps the orderly, efficient and safe movement of people, goods and services.
- People feel safer and are safer due to better lighting, clearer sight lines and slower traffic, fulfilling our obligations under section 17 of the Crime and Disorder Act 1998.
- People drive less and walk more, reducing emissions of fumes and noise and improving health through exercise.
- Tourists are attracted to Nottingham.
- Buildings can be appreciated.
- Meets central government objectives to improve public space.
- Minimises problems associated with the night-time economy.
- Fosters an integrated approach to service delivery across sections and departments.
- Helps meet the requirement of Best Value to make the best use of resources, especially through consideration of the maintenance implications of design choices.

Status

The manual has been produced as an interdepartmental collaboration of key people who oversee the design and management of our city centre streets.

The manual has political endorsement and is a formal statement of council policy. It has been approved by Full Council and supersedes the 1997 Streetscape Code of Practice for Conservation Areas. The manual has been reviewed in May 2006.

The manual does not consciously contravene any central government legislation or regulations that the council is statutorily obliged to comply with.

Introduction

Structure

The Manual is in three parts:

Part A Principles & Vision

This section contains an explanation of streetscape design principles and illustrates them in relation to four generic types of street.

Part B Design Process

This section includes guidance on several processes that can deliver higher quality streets.

Part C Streetscape Components

Commitments are made to new design and maintenance approaches that fulfil the principles in part A. The streetscape components are grouped together under six main headings covering highway alignment, footway surfaces, carriageway surfaces, street furniture, signage and planting.

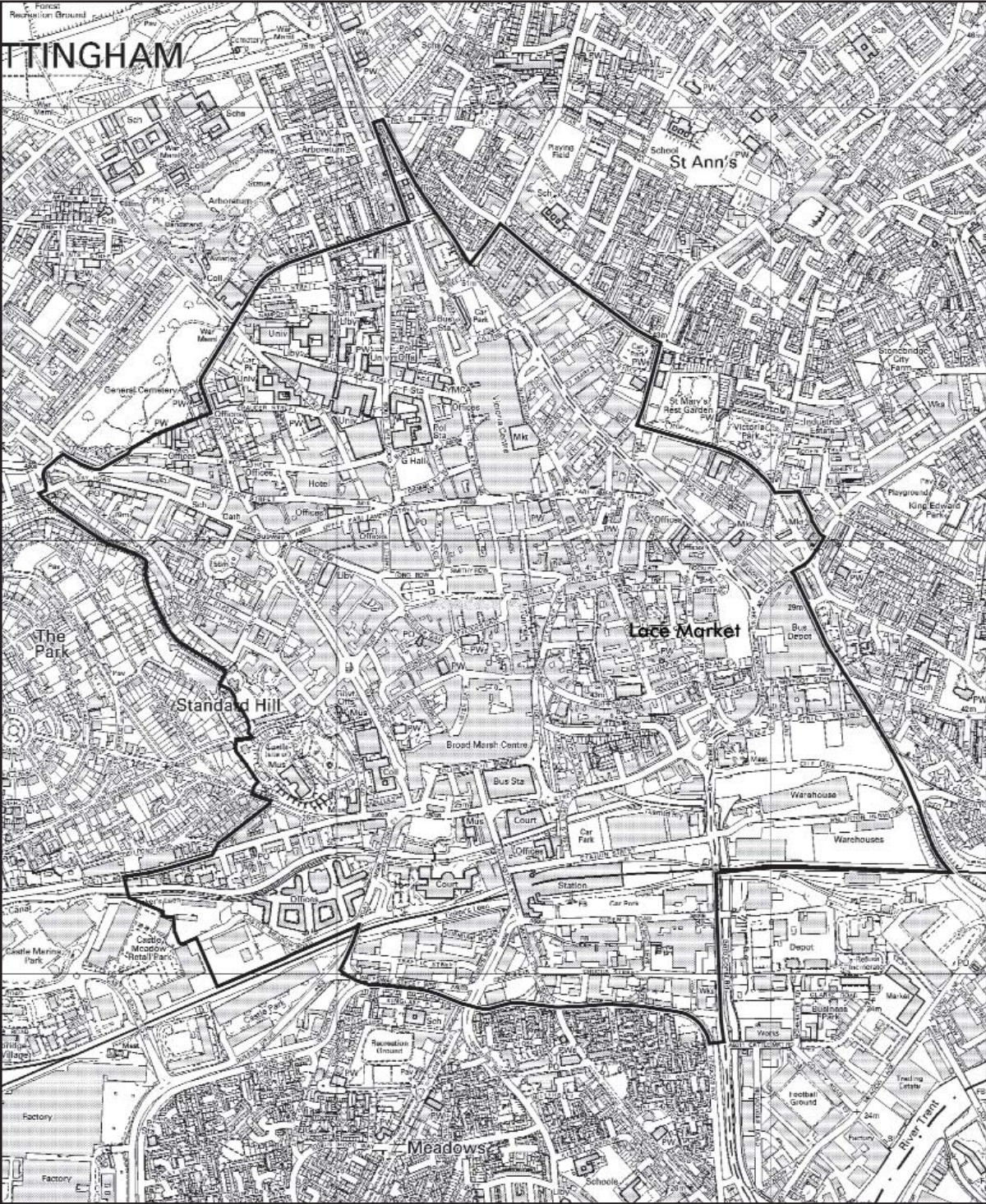
Review arrangements

The steering group will review the document annually. Document holders are invited to submit comments at any time to the manual co-ordinator, Nigel Turpin (ext. 55479)

Geographical scope

The manual covers the city centre (see map overleaf). However, the general principles and many of the design solutions will be relevant to the rest of the city and especially district centres with a high pedestrian footfall.

Nottingham City Centre



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Principles of streetscape design

Character: The streets of Nottingham are as important as the buildings that frame them. They combine to create distinctive places that define the city's character and sense of place. It is essential to understand the character of an area when redesigning a street. It encompasses cultural history, settlement layout, form of buildings and spaces, movement routes and patterns of activity. Streets that are fronted by old and architecturally distinguished buildings require special care when alterations are made.

Street Users: Understanding how, why and in what numbers people and vehicles use a street informs decisions about space allocation and access for vehicles. There may be a demand from some categories of street user that is suppressed by the adverse conditions they face, which can be released by a redesign that is sympathetic to their needs. Special consideration should be given to the needs of disabled people, who are particularly sensitive to changes in level, the positioning of street furniture and signs, and the nature and condition of walking surfaces. Pedestrians, cyclists and motorists perceive streets differently, and the needs of each group must be considered.

The network: Streets should not be considered in isolation. They are part of a network and good design will link streets both aesthetically and for ease of movement.

Streets are social spaces: It is conventional practice to classify roads and streets on the narrow criteria of traffic function. Typically a road hierarchy aims to avoid conflicts between different road users, their speeds and paths of movement, thereby promoting safe and efficient traffic flows. However, this approach tends to ignore the wider function of the street as a route for pedestrians and cyclists and a place where people live, work and socialise.

Co-ordinating the elements: The objects in the foreground of a streetscape need to be visually co-ordinated and their number minimised. This can be best achieved through a multi-disciplinary approach to design involving highway engineers, urban designers, traffic engineers, landscape architects and town centre managers. It allows compromises to be reached so that the overall design concept is realised.

Quality does not equal cost: Whether expensive or less costly materials are used to enhance the streetscape the basic principles of good design are constant. Expensive materials do not automatically result in quality streets.

Local suppliers: Obtaining street products from local suppliers has multiple advantages. It supports local employment, reduces the environmental impact of transporting goods and allows the designer to discuss their precise requirements with fabricators face to face.

Reusing materials: Materials should be salvaged and reused on a scheme to reduce expenditure on new materials and the environmental impact of disposal and sourcing new materials. The reuse of materials such as granite kerbs can also help to protect the distinctiveness and historic character of a street.

Bespoke products: Standardisation of materials and equipment in the street helps to achieve a calmer and more consistent look to the street. It also makes it easier and cheaper to replace damaged items.

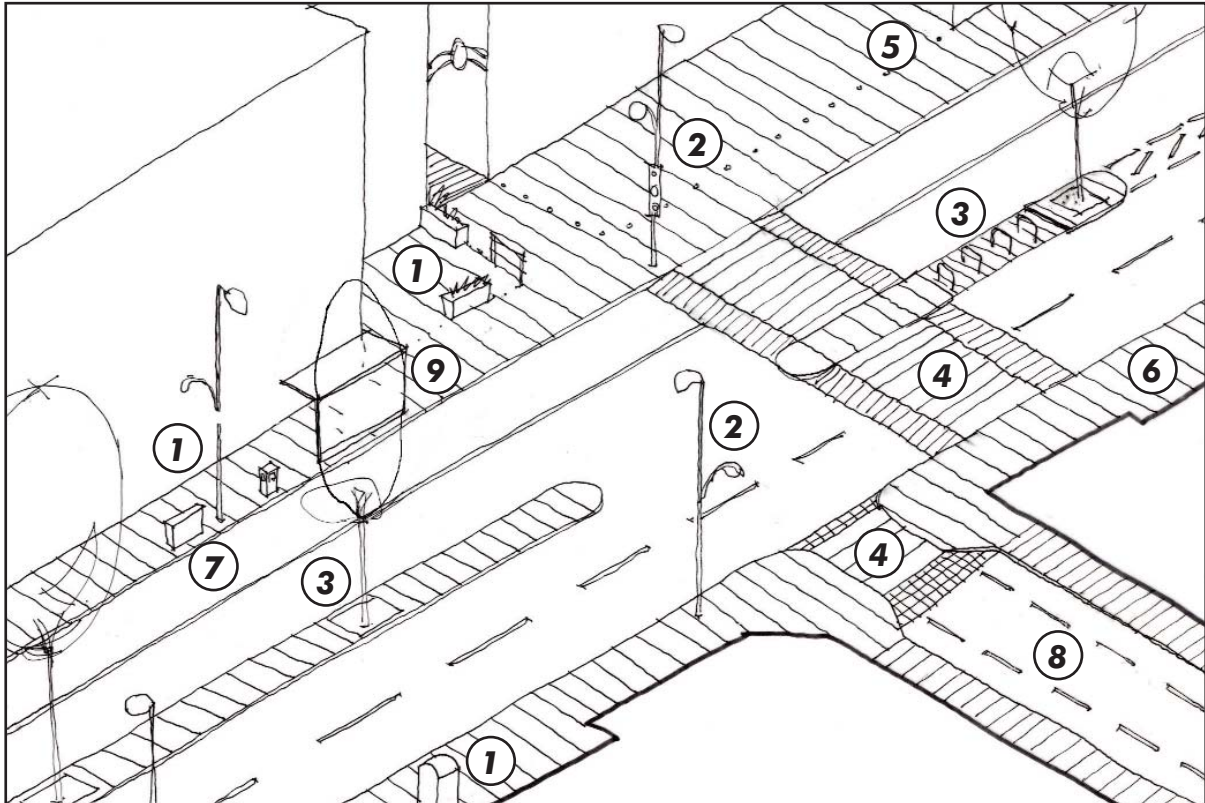
Maintenance is vital: Standards of maintenance probably have a greater effect on people's perception of street quality than the original design. Good design reduces the future maintenance burden by selecting materials on the basis of whole life costing and positioning street furniture to make cleansing easy.

Types of street

The following illustrations demonstrate our vision for the design of four typical street types: vehicle dominant, pedestrian/vehicle, pedestrian dominant and historic. They do not equate exactly to actual streets. The design approaches are drawn from part C.

Vehicle dominant

These streets are major transport arteries that run through the city centre and provide access to it. They are lined with buildings offering services to the public.

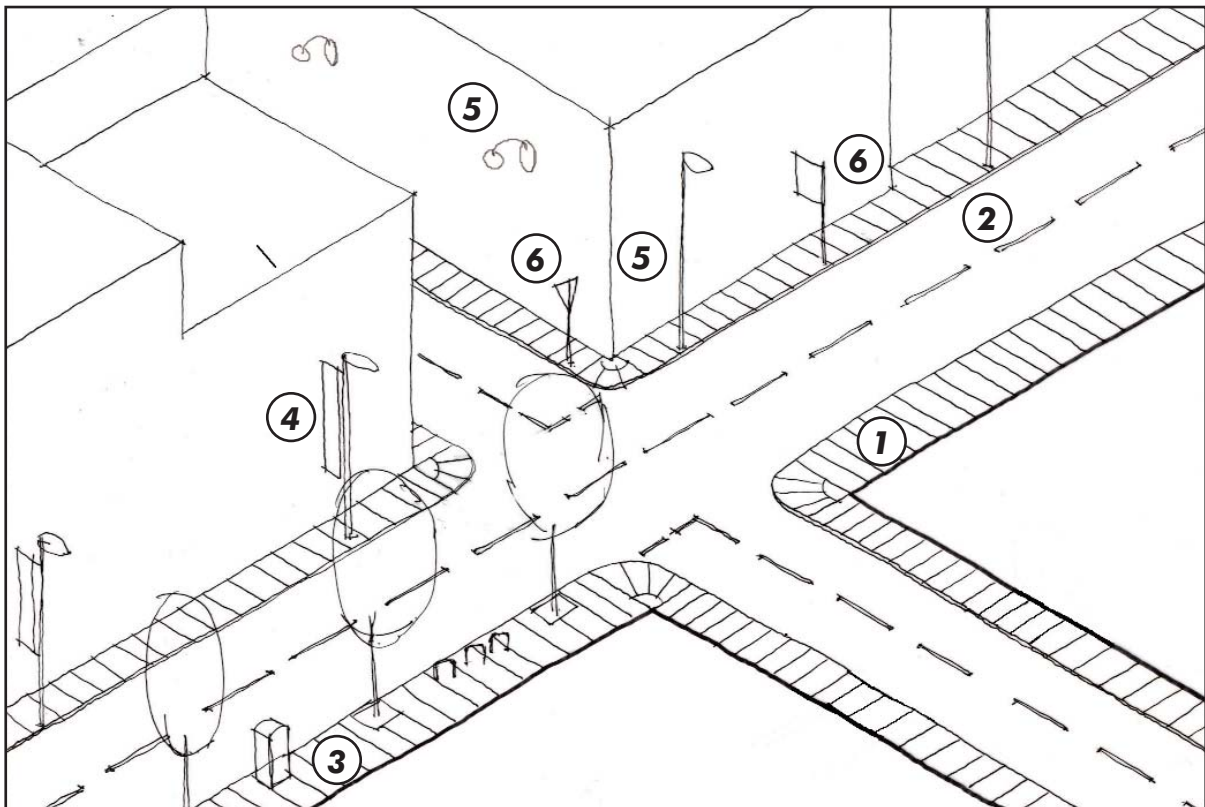


NB. Drawing is diagrammatical

- 1 Locate street furniture to keep footways clutter free.
- 2 Co-ordinate street furniture e.g. signals and signs on street light columns.
- 3 Central reserves can be used for for tree planting and cycle parking.
- 4 Improve pedestrian access and safety across main streets and side roads with plateaux crossings.
- 5 Unity of paving between highways and private land with minimal boundary markings.
- 6 Pave footways with rectangular slabs at right angles to kerb.
- 7 No coloured surfacing for bus lanes.
- 8 Protect side road parking with side road entry build outs.
- 9 Cantilevered bus shelter to avoid footway obstruction.

Pedestrian/vehicle

These streets have moderate vehicle and pedestrian flows and are outside the heart of the city centre. Neither pedestrians nor vehicles are dominant.

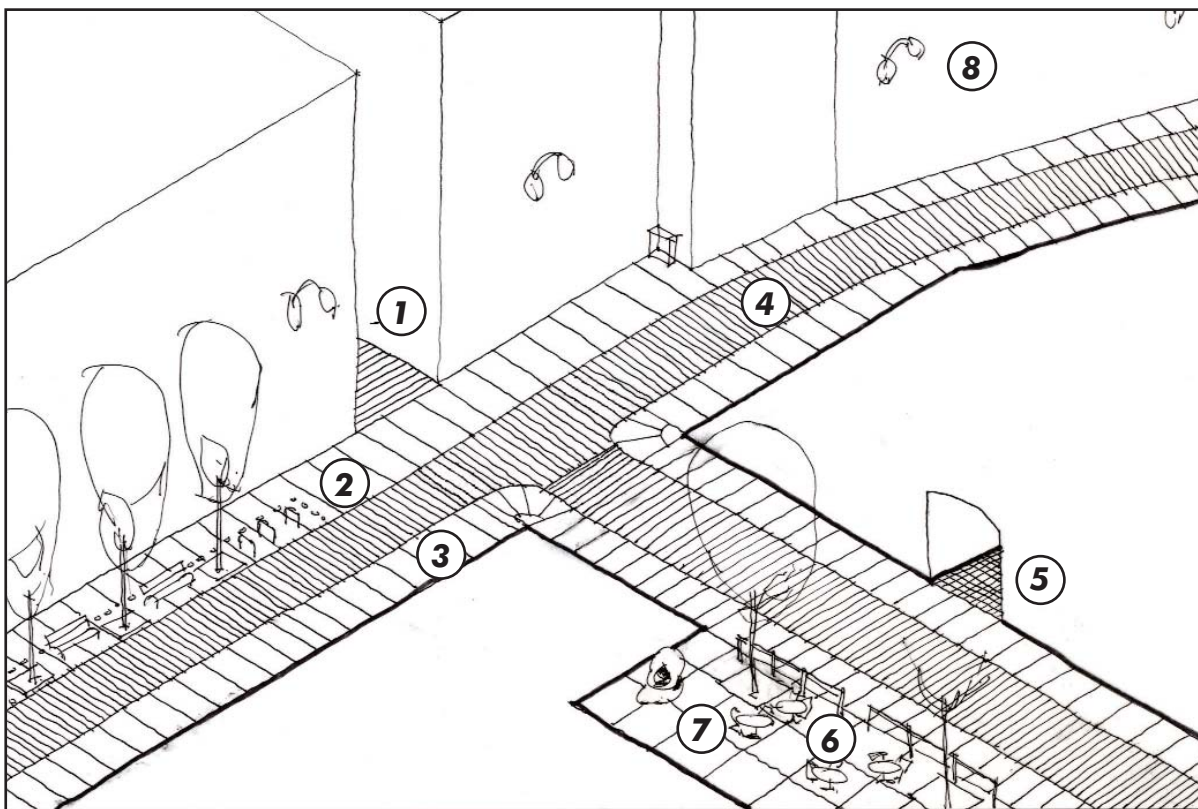


NB. Drawing is diagrammatical

- 1 Pave footways with rectangular slabs at right angles to kerb and with fan pattern around corners.
- 2 Smooth out kerb alignment and retain kerb upstand.
- 3 Maximise footway width to create space for pedestrians, tree planting and co-ordinated street furniture.
- 4 Use light columns to support elements of street furniture such as banners and hanging baskets providing column can take the loading.
- 5 Ensure that wall and column mounted street lights are used consistently along individual streets or sections of street.
- 6 Where a sign cannot be mounted on a lighting column use one pole. Cantilevered construction can avoid the need for two poles where footway width is restricted.

Pedestrian dominant

These streets have high pedestrian flows and restricted vehicle access and are in the heart of the city centre. Pedestrians dominate and vehicles travel slowly to give way to cyclists and those on foot.

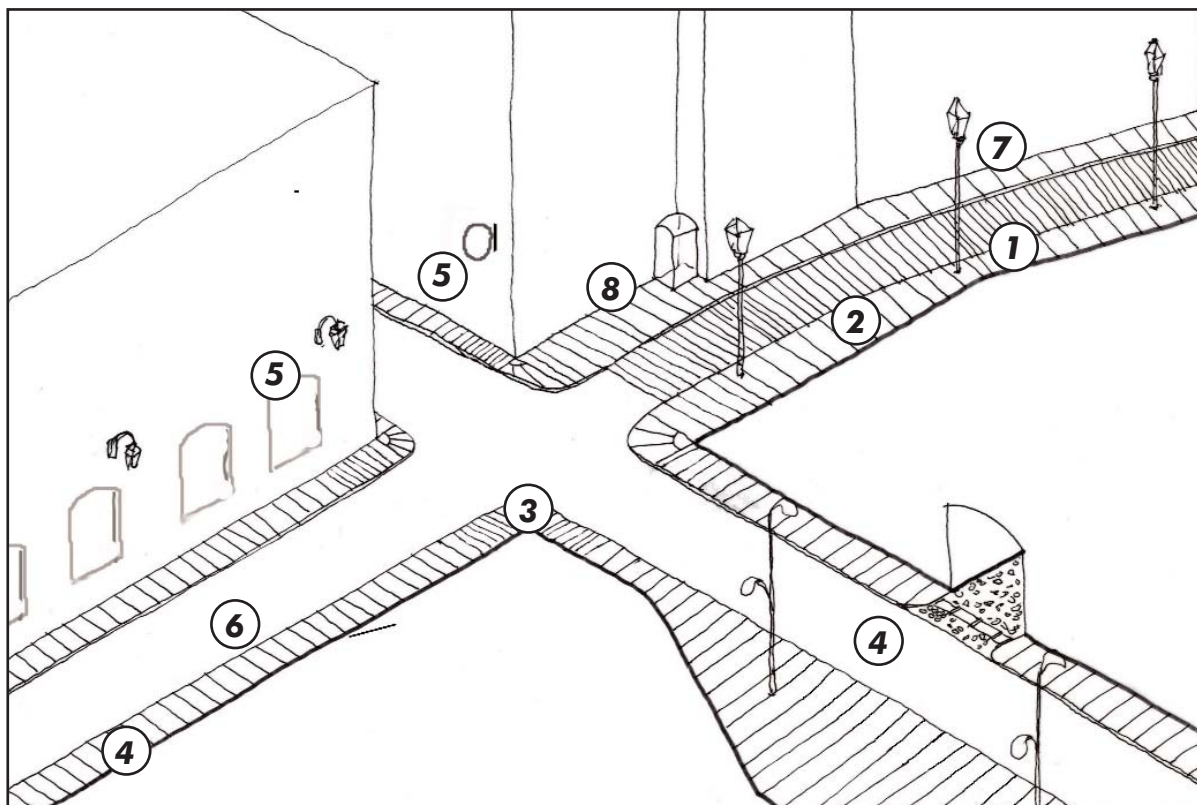


NB. Drawing is diagrammatical

- 1 Narrow streets and alleys paved edge to edge in appropriate uniform material. (See page 17).
- 2 Co-ordinate street furniture into groups and provide tactile warning strip of cropped setts around groups.
- 3 Rectangular slab footway paving laid on strengthened base to allow vehicle over run. (See page 17).
- 4 Flush kerbs with carriageway surface in rusticated setts, such as Marshall's Tegula.
- 5 Footway paving to go across minor vehicle crossovers.
- 6 Outdoor cafes not to obstruct lines of main pedestrian movement.
- 7 Special spaces and locations identified for unique treatment and public art.
- 8 Street lights on buildings to reduce clutter.

Historic

These are narrow streets fronted by old and architecturally distinguished buildings made from natural materials. Vehicles travel slowly due to the narrowness of carriageway.



NB. Drawing is diagrammatical

- 1 Block pave selected streets with rusticated concrete sets.
- 2 Smooth out kerb alignment but retain kerb upstand and use granite kerbs.
- 3 Pave footways with rectangular natural stone paving and use fan pattern around corners.
- 4 Respect historic crossovers but ensure smooth level surface for pedestrians.
- 5 Wall mount street lights and signs, especially where pavements are narrow.
- 6 Use 50mm yellow no waiting lines.
- 7 Retain and refurbish historic street lights and furniture.
- 8 Locate street furniture off clear footway.

Project management

Every project must have a clearly identified project manager who is responsible for managing the project on a day-to-day basis.

The project manager will be responsible for the preparation of a project plan, risk log and design brief in accordance with the LTP Project Execution Plan and PRINCE 2 project management methods.

Risk log

Every project must have a register of risks maintained in a risk log. For each element of risk the log describes its category (e.g. commercial, legal, technical), the effect on the project if the risk occurred, the likelihood of it occurring, how soon it might occur and the actions named people have taken to counter that risk. The log will be maintained and updated throughout the life of the project.

Design briefs

The design brief is prepared by the project manager in association with the design team and is derived from the project plan. Time should be allowed for this in the programme. When the quality of the information contained in a brief is accurate and clear there is less likelihood of misunderstanding and delay occurring later in the project.

The brief for a project will indicate in writing and on a diagrammatic plan what major changes to the street should be incorporated into the detailed design. These should be derived from the approaches in the City Centre Streetscape Design Manual. It is useful to distinguish between those features that must be incorporated and those that should be explored.

Development opportunities

The development of large parcels of land can provide a means to fund streetscape improvements in adjacent areas. *We will secure a carefully costed financial contribution through a planning obligation under section 106 of the Town and Country Planning Act 1990 or Section 278 of the Highways Act 1980 (as amended by the New Roads and Streetworks Act 1991) where planning consent is contingent upon functional or aesthetic improvements to the street.*

Where the developer seeks to use its own contractors to implement works care needs to be exercised to ensure that they are constructed to an acceptable standard and that during the works adequate traffic safety and control measures are employed.

The method of window cleaning can affect the choice of ground surfaces. *We will use our development control powers to ensure that the building is not designed to require window cleaning using heavy hydraulic lifts operated from the footway because this can limit the choice of materials.*

Mounting equipment on buildings

Footway space can be gained and visual obstructions reduced by mounting street lights and traffic signs on buildings. Consent from building owners must be obtained using wayleave agreements. This is a time-consuming process but worth it where footway space is scarce or the quality of the built environment is high. Lights and signs need to be close to the carriageway so narrow historic streets are most suitable for building fixings.

There are five basic stages in the process:

- One: Prepare a plan of preferred locations with lighting engineers (for street lights) or traffic management (for signs), avoiding listed buildings where possible.
- Two: Check with Planning Applications and Advice if any consents are required.
- Three: Seek the verbal agreement of the owner, initially by visiting the property. Provide photographs and plans showing the position and appearance of equipment and cable runs.
- Four: Instruct legal services to prepare and send out wayleave agreements (amended to suit the specific location).
- Five: Obtain listed building consent, planning permission or advertisement consent if Planning Applications and Advice require.

Maintenance implications

Maintenance engineers will advise the design team on the maintenance implications of the choice of materials and detailing. They know which areas of footway get regularly over-run by vehicles, allowing designs to either prevent the movement occurring or produce details that can withstand vehicle loading. They will advise which surfaces are easy to clean, retain their appearance and have a low porosity. Minimising the number of cuts and joints where surface levels change can reduce damage from water ingress.

The current level of capital budget spending on new works is imposing a strain on the existing maintenance budgets. This leads to difficulties in maintaining new schemes. When large-scale streetscape improvements are planned that will result in a quantifiable increase on maintenance and cleansing demands, it should be taken into account when budgeting for maintenance and reporting to members.

M*aintenance information*

Street quality is rapidly undermined by shoddy utility reinstatement work. A statutory code of practice called the "Specification for Reinstatement of Openings on the Highway" has been developed. Clause S8.3.2 of the Code states, "The undertaker shall reinstate all registered High Amenity footways, footpaths, cycle tracks with matching materials from the identified source or supplier." *We will ensure that footways surfaced in expensive natural materials are designated as high amenity and that the Street Gazetteer lists the source and supplier of the paving.*

C*lutter busting*

The proliferation of redundant signage and street furniture obstructs pedestrian movement, endangers people with sight problems and looks ugly.

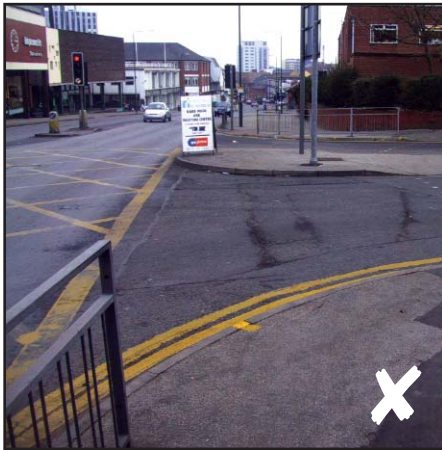
A Clutter Buster has been appointed to remove redundant signage and street furniture from the city centre and from pavements across the whole city.

Streetscape components

Highway alignment

Principles

The spatial layout of the highway can produce an overly complex streetscape. Devices that manage traffic and parking, such as kerb build-outs, bays, splitter islands and staggered pedestrian crossings fragment the street. *We will reinforce the proportional relationship between the carriageway, footway and buildings by retaining or reinstating kerb lines that run parallel to buildings and the traditional distinction between pavement and carriageway. We will only deviate from this principle when a) building out the pavement would provide a pedestrian crossing that is significantly more convenient and safe; or b) having kerbs parallel to the building line would prevent essential management of traffic or parking.*

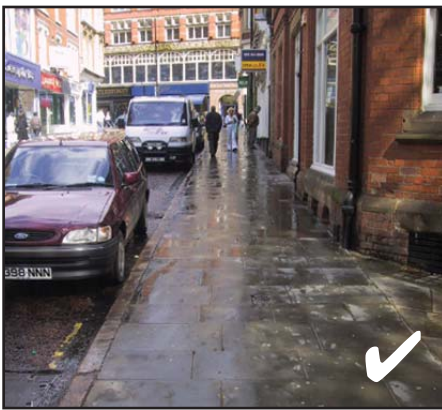


Cairns Street - a complicated alignment

An understanding of the relationship between pedestrian and vehicular traffic in a street allows the correct use of material types, edge detailing and other components to define the footway and carriageway.

Corner radii

Designing corners to accommodate the swept path of the largest vehicles can result in footway width being reduced and the widening of side road crossings that place pedestrians at risk. However, failure to accommodate the turning movement of large vehicles will result in over-running the corner that particularly endangers pedestrians who are waiting to cross the side road. *We will ensure that corner radii are as small as possible while accommodating the turning movements of the vehicles that are anticipated. Larger vehicles should be accommodated within the overall geometry of a junction, not necessarily within the lane markings.*



St. Peter's Gate - kerbs parallel to building line

Visibility splays

Visibility splays can break down the relationship between building line and kerb line. *We will design junctions with visibility splays that are kept to the absolute minimum as determined by the speed of vehicles on the street they are turning into or crossing. We will also reduce the set back of the observation point recommended in the Design Manual for Roads and Bridges to the absolute minimum that provides*



Villa Road - large corner radius and wide crossing

Streetscape components



Villa Road - narrowed width speed table
(under construction)

adequate visibility along the street they are joining or crossing from a stationary position at the give way line.

Side street entries

When a side street joins a main street it should be made possible for pedestrians to cross the side street without deviating from the line of the footway on the main street. Side streets should be narrow at the junction with a main street so that pedestrians do not have to cross a series of wide side streets when walking along the main street. However, narrowing can cause problems when sections of carriageway need to be closed for utility works. *We will narrow the entrance to side streets. Build outs will be used where there are parking bays behind on the side street. Before narrowing is agreed a risk assessment should be carried out to determine whether there are alternative routes for vehicles if utility works in a narrowed carriageway would block the street.*

A speed table across the side street entrance eases pedestrian movement by creating a level surface and reduces the speed of traffic leaving and approaching the main street. *We will introduce side street entry speed tables on important pedestrian routes along busy streets where the width of the pavement allows the top of the table to be aligned with the pedestrian desire line.*



Upper Parliament Street - plateau
crossing

Plateaux crossings of busy roads

Plateaux with ramped approaches can slow traffic on the approach to pedestrian crossings thereby improving pedestrian safety. *We will introduce plateaux on pedestrian crossings over the inner ring road and arterial roads where a major safety problem exists or is anticipated.*

Streetscape components

Footway surfaces

“PAVING-Stone, which formerly used to be got out of the Trent, is now plentifully brought hither from Keyworth....

AMONG this kind of Stone there are frequently found in the Road and upon the Forest, some which are diversify'd with two or more Colours, and mark'd with a beautiful Variety of Spots and Veins, this has been lately taken Notice of by some Persons of Leisure....and this new Fancy, is within these two Years, grown upon several of them to that Degree, that it may be called a Lithomania.”

Charles Deering, *Nottingham Vetus at Nova* (Nottingham, 1751, pp.88-9)



Inconsistent paving



Small unit paving



Large rectangular re-inforced slabs

Principles

The inconsistent use of footway paving materials, sizes, colours, textures and patterns fails to create a sense of calm unity. We will use fewer types of paving within and between streets to provide a neutral backdrop or base for the adjacent buildings and to reduce maintenance costs.

The use of larger sized rectangular paving slabs creates a visual order that smaller modular paving and concrete blocks break down. The small, square, chamfered concrete paving units that are currently used in less prestigious areas do not produce a calm neutral ground surface.

The strength and durability of paving materials is as important as appearance. Where footways are prone to vehicle over-running the strength of slab and below ground construction must accommodate this loading.

Main paving types

We will use three main footway materials: dark grey Charcon City paving (large 750x600 reinforced concrete slab), granite and blacktop. In the context of limited budgets the use of more costly materials has to be carefully justified but granite will be used for the most prestigious areas. The choice of footway surface for a street will be dictated by two criteria: pedestrian flow (more people walking and able to appreciate the paving) and age of buildings (pre 1900 buildings are complemented by natural materials).

Streetscape components

Street Type	Footway Surface	Tactile Blister paving	Kerb
Prestigious	Granite	Grey Granite in Conservation Areas (p.19)	Grey Granite
High Pedestrian flow 20th and 21st century buildings	Charcon City	Grey Granite in Conservation Areas (p.19)	Grey Granite
Medium Pedestrian flow 20th and 21st century buildings	Blacktop	Concrete modular	British Standard concrete
Low Pedestrian flow 20th and 21st century buildings			

Streetscape components



Ugly stack bond

Paving bond

The bonding of paving slabs should not draw the eye towards joints that run in the direction of travel because it emphasises imperfections in the alignment of paving and takes attention away from buildings. Stack bond is particularly unattractive. *We will use one thirds stretcher bond to arrange paving.*

A fanned paving bond at corners can attractively emphasise the line of the pavement and the corner entrances to buildings. *We will fan paving bond at corners.*

Material junctions

The join between different types of paving material and kerbs needs to be handled carefully. *We will neatly mark the join between concrete and stone slabs with a seam of stone setts and ensure that breaks between different kerb types occur at natural junctions.*



Mount Street/Angel Row - fanned bond

Kerbs

Granite kerbs are more durable and attractive than concrete. Grey granite is easier to source than pink granite. *We will use grey granite kerbs with Charcon City paving to complement their grey colour.*

Footway crossovers

Where vehicles cross the footway to reach building entrances the crossover should not normally interrupt the footway so that ease of pedestrian movement and visual unity are protected. However, the crossover surface needs to be capable of withstanding the extra loading.



Castle Gate- pavement interrupted

Streetscape components



Castle Gate - pavement continuous

Demarcating highway boundaries

It is important that small areas of private land that form part of the functional pavement do not break up the unity of a paving surface. *We will seek landowners' agreement to pave on their land so that a unified surface can reach from kerb to buildings. When new developments are constructed we will expect the developer to pave these areas in a material that matches the adjacent pavement.*

Where a division in paving materials does not mark the public highway boundary private landowners may request an alternative demarcation. *We will mark the boundary between public and private land using widely spaced small brass studs.*

Tactile paving

The guidance for the provision of tactile paving is set out in 'Guidance on the use of tactile paving surfaces on pavements' published by the DETR1999. To promote a fully accessible environment we will observe this guidance as part of the design process.

At controlled crossings the tactile stem should extend from the dropped kerb to the back of the footway and preferably to the building line where that is possible. The stem will be encountered by visually impaired people walking along the footway and can be followed to the crossing point. It is recognised that in some cases this could result in a very long stem. If this is considered undesirable, we will consult the City Council City Centre Urban Design Team, Access Officer, and the Team for Visual Impairment (who will invite appropriate service users) to establish how a sensible arrangement can be provided. In most cases a 5m long stem should be sufficient.

In conservation areas or in the vicinity of listed buildings, some relaxation of colour requirements may be acceptable. In these limited circumstances we will use a tactile paving product that matches the surrounding paving. In these instances we will consult the City Council City Centre Urban Design Team, Access Officer, and the Team for Visual Impairment (who will invite appropriate service users).



Contrasting tactile paving



Barker Gate - cropped setts furniture enclosure

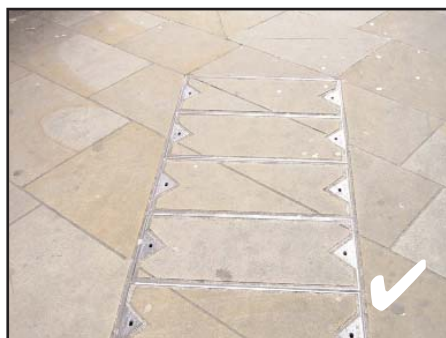
Streetscape components



Outside City Centre - bus platform



Goldsmith Street/Burton Street - no inset
tactiles



Carrington Street - inset cover

Street furniture can present a hazard to blind and partially sighted people. Some schemes have used cropped sets to warn people and neatly demarcate a furniture zone. We will encircle clusters of street furniture with a triple row of cropped setts positioned a minimum of 300mm from the nearest item of street furniture.

Bus platforms

Block paved bus platforms have been installed outside the city centre to highlight the presence of bus stops. The concentration of stops in the city centre and the number of people using them mean that they are unnecessary because long lengths of pavement would be covered in blocks rendering them useless for marking the position of individual stops. We will not install block paved bus platforms.

Utility inspection covers

Utility inspection covers can be made to blend with surrounding paving by inseting them with the paving material. Inset covers have been widely used in Nottingham. We will continue to work with utility companies to ensure that they use and maintain this type of cover.

Streetscape components



Tollhouse Hill - stone masticated asphalt



Victoria Street - layby



Upper Parliament Street - paved splitter island

Carriageway surfaces

Principles

The carriageway surface occupies the greatest extent of a typical street and therefore has a marked impact on its appearance.

The choice of materials will take into account the required texture, smoothness, skid resistance, drainage and durability.

Main carriageway surface

The choice of carriageway surface material will depend on the relative priority between vehicles and pedestrians. We will have a kerb upstand of 125mm and surface the carriageway in stone masticated asphalt where vehicles have priority. In areas of pedestrian dominance there will be no kerb upstand, an embedded kerb and the "carriageway" will be surfaced in Marshalls Tegula, a concrete sett with rusticated edges.

Parking bays

Laybys used for parking, buses, loading and taxis can look like ugly bites taken out of the footway. It is usually not necessary to create a layby. However, where it is unavoidable the layby should be surfaced in the same material as the carriageway to avoid introducing a third material. We will surface laybys in the carriageway material.

Splitter islands

Splitter islands often have the dual function of pedestrian refuge and guiding traffic through junctions. We will surface splitter islands that are pedestrian refuges in the same material as the adjacent pavements. The contrast between the splitter island paving and carriageway surface will help partially sighted people detect their arrival on the refuge, an effect that is reinforced by using refuge type A (elongated island with dropped kerbs) in preference to type B (double 'D').

Streetscape components

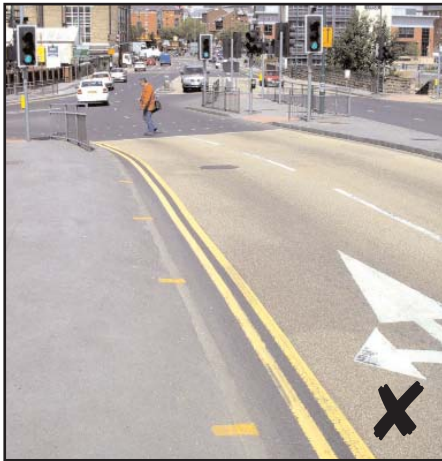


Angel Row - red bus stops

Coloured surfaces

Thermoplastic red surfaces have been used to aid enforcement of 24 hour bus lanes, bus stops and cycle lanes. However, these surfaces are expensive and unattractive, especially when they become oil stained and utilities fail to reinstate them properly. *We will not use coloured surfaces to mark bus stops or bus lanes. Cycle lanes will not be coloured.*

The prominence of white hatching on the carriageway surface that denotes an area of exclusion for traffic is sometimes enhanced by applying a coloured surface. The obvious unattractiveness, maintenance burden and additional expense of the coloured surface outweigh its usefulness as a guide to traffic. We will not augment white hatching with a coloured surface.



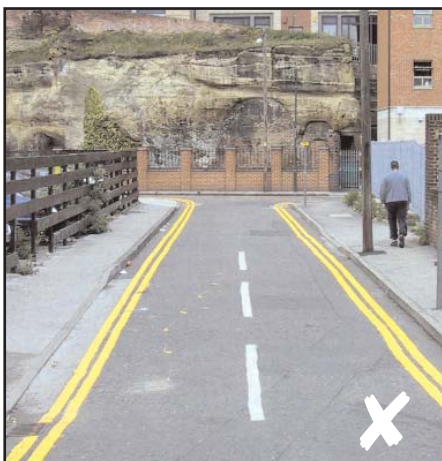
London Road - coloured anti-skid surface

Anti-skid surface

Anti-skid surfaces can be very obtrusive and do not rely on their visibility to achieve a road safety benefit. It can be obtained in colours and finishes that blend better with the surrounding carriageway surface. *We will use black spray-applied anti-skid surface, such as Prismo Suregrip.*

Lining and lettering

Lining and lettering on the carriageway can be very visually intrusive. The Traffic Signs Manual (Ch.5, para 20.4) allows different widths of yellow line to be used in environmentally sensitive areas and on slower speed roads. *We will use 50mm yellow lines in Conservation Areas and 75mm throughout the rest of the city centre when roads are re-surfaced.*



Pemberton Street - intrusive lining

Streetscape components

Street furniture

Principles

Street furniture includes fixed elements that are either directly associated with the functional use of the highway such as signs, traffic signals and lighting or are elements that fulfil a function not directly associated with the highway such as seats, bins and bollards.

There are also items such as telephone kiosks, statutory services and junction boxes that are not installed and maintained by the council. Organisations have permitted development rights to place this equipment on the footway.

The use of furniture in all its forms should be kept to an absolute minimum, although the value of seating for elderly and disabled people should not be overlooked. Overuse and inappropriate location causes particular problems for wheelchair users and people who are visually impaired. Tall structures can make pedestrians feel insecure by blocking sightlines. Cleansing vehicles require a 2metre unobstructed route.

The footway can get very congested and obstructed if furniture is not located with care. Some elements, such as the primary traffic signals heads and certain street signs have fixed location criteria, while others have preferred positions.

Items of street furniture can often be combined to minimise the number of supporting structures. *We will hold a meeting for each project involving the designers of lighting, signals, tree planting and signage to exploit the opportunities for combination of equipment, building fixing and the elimination of visibility conflicts.*

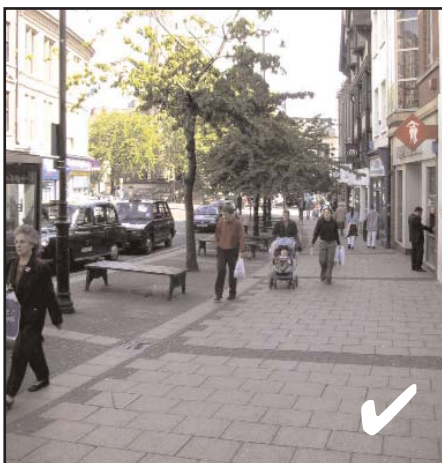
Zoning the footway provides order to furniture. It can be divided into four zones: kerb, furniture/planting, unobstructed and frontage. The unobstructed zone will take precedence and footways of less than 2000mm will not be able to incorporate a furniture/planting zone. The relative importance, scale and treatment of each zone varies according to its location on the street.



Clumber Street - telephone box in busy street

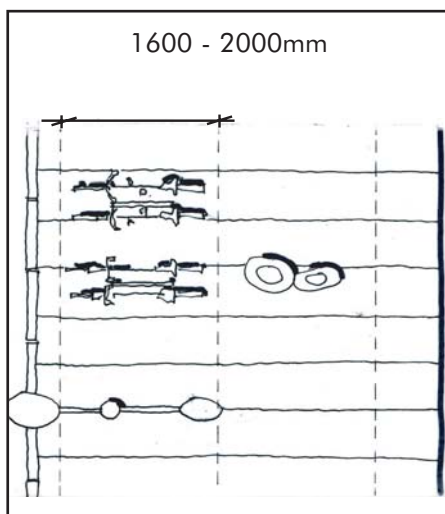
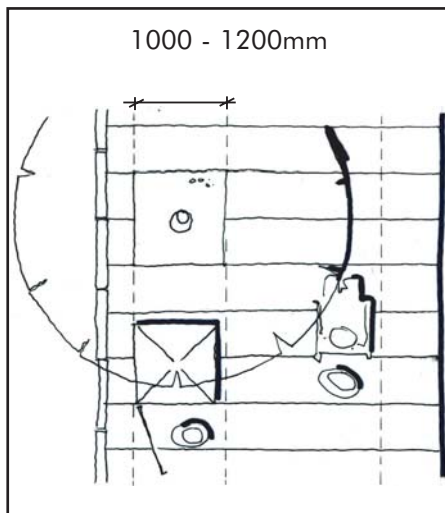
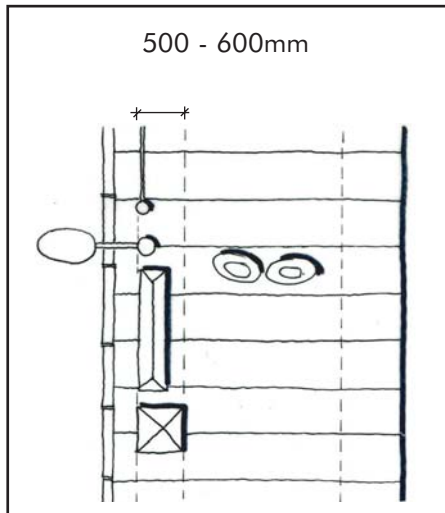


Stoney Street - building mounted light



Wheeler Gate - ordered street

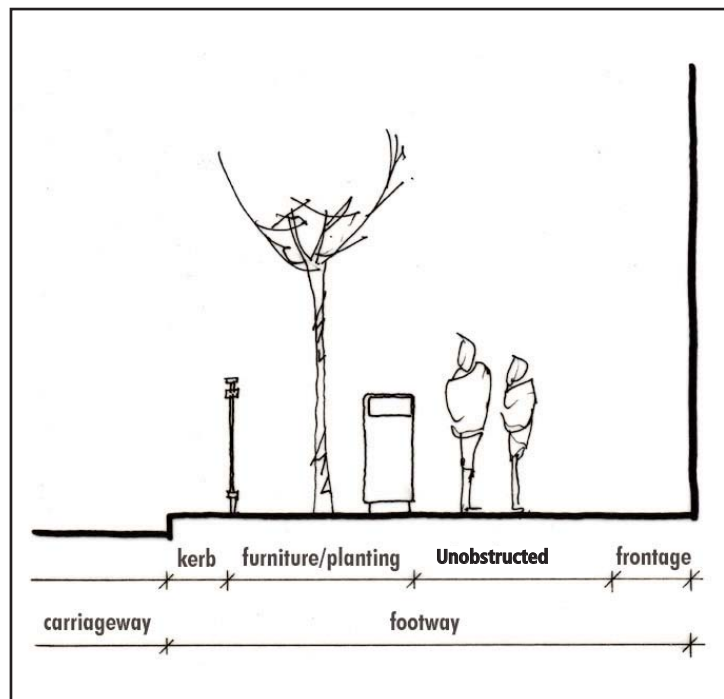
Streetscape components



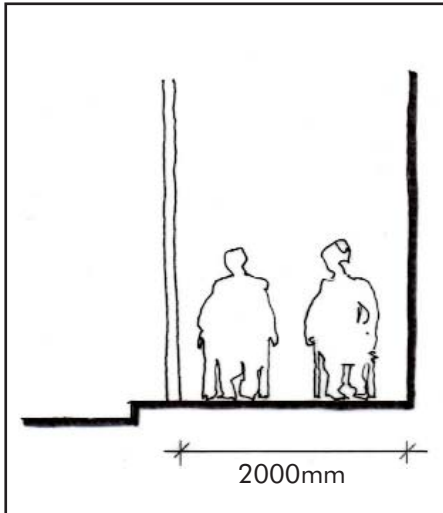
- **Kerb zone:** Typically a 450mm wide strip that is clear of furniture to prevent damage by and to overhanging vehicles. However, furniture may be placed here when the unobstructed zone is restricted, as a traffic-calming tool and where physical protection of the footway and / or pedestrian is required. In such situations it is essential to assess the camber or cross fall of the road to accommodate high-sided vehicles.
- **Furniture/planting zone:** Where furniture, signs and trees should be positioned. It separates pedestrians from the carriageway thereby increasing their perception of safety and comfort, which is particularly valuable where traffic flows are heavy. The width of the furniture zone is minimised to allow the maximum possible width for the unobstructed zone. Assuming that adequate unobstructed and kerb zones can be provided, the width of the furniture zone can fall into the following basic categories:

500-600mm: Accommodates barriers, bollards, streetlights, control boxes, benches, bins and cantilevered bus shelters with perch seats but with no end panels.

1000-1200mm: Accommodates telephone boxes and cycle stands angled at greater than 45 degrees to the kerb line, benches and street tree planting.



Streetscape components



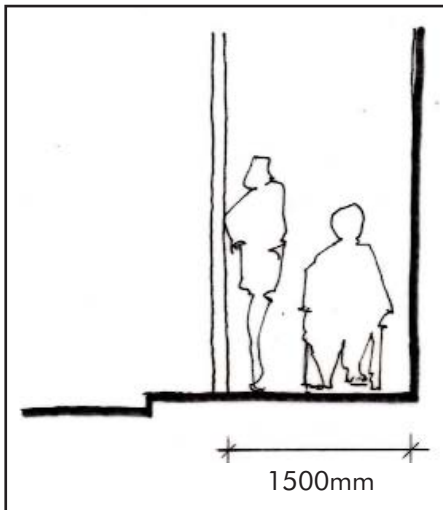
1600-2000mm: Accommodates cycle stands at 90 degrees to the kerb line, kiosks and other structures, bus shelters with half and full end panels, significant tree planting and grassed/planted verges.

- Unobstructed zone: For the unhindered movement of pedestrians along the street. Entirely free of objects. Along these pedestrian routes furniture should generally be located to achieve the following clear widths:

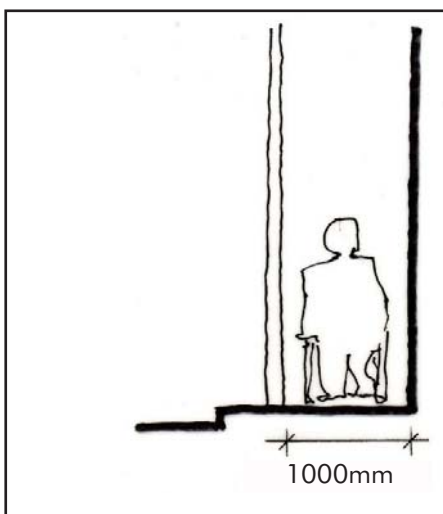
2000mm: preferred because it allows two wheelchairs to pass one another comfortably.

1500mm: usually sufficient, giving space for a wheelchair user and walker to pass one another.

1000mm: absolute minimum width for a maximum length of 6000mm.



Frontage zone: The area between the unobstructed zone and the building, which should be kept free of furniture because it provides the best route for visually impaired people to walk along the street using continuous building facades as a guide. However, there will be occasions when pavement cafes are least obstructive to pedestrians when located in the frontage zone (see below). In retail areas the lack of obstructions encourages window-shopping. Encroachments into the public highway, such as overhangs, signs, awnings, banners, planters, down pipes and 'A' boards occur within this zone. Such encroachments should not be permitted without the relevant statutory approval. *We will not grant planning permission for projections and canopies to be attached to buildings if this necessitates the use of bollards to guard them from damage. 'A' boards are not allowed anywhere on the public highway.*



Where the pavement widths are narrow and no furniture zone exists essential street furniture will be positioned tight against property boundary and in recesses to ensure an uncluttered kerb zone. Wayleaves can be negotiated to build cabinets and post boxes into buildings, fix signs and streetlights to buildings and locate furniture within private forecourts, although they are time consuming to secure. Advice on wayleaves is contained in Part B of this document.

As service items street furniture should be as unobtrusive as possible. The style, material and colour should be restrained. Very few streets have a consistent style of furniture. Most items

Streetscape components



Wheeler Gate - piecemeal introduction of new style

are an inauthentic traditional style. A simple contemporary style of furniture is suitable, especially since the tram has successfully introduced a new aesthetic into the city centre. *We will introduce simple contemporary style street furniture in all areas.*

It is important that contemporary street furniture is not introduced on a piecemeal basis in response to the need for replacement or additional items. *We will only change the street furniture in those streets with a coherent traditional style, when the furniture along the whole length of the street can be replaced.*

The consistency of paint colour and texture on street lighting columns, traffic signals poles and sign poles affects the visual harmony of the street. Fly-posting is a problem on these structures. *We will paint the whole length of all columns and poles NET silver (RAL9006) with a factory applied coating of anti flyposting paint, such as Dacrylate Margard, to the lower 2.3m.*

Demountable street furniture can make replacement of damaged items easier, although it is important to ensure that any fixing left behind is flush with the pavement so as not to present a trip hazard. *We will use demountable furniture where elements may be susceptible to vehicle damage and need prompt replacement, or where elements of street furniture are not required all the time.*

Traffic signals and control boxes

Traffic signals and controller cabinets are very prominent elements of the streetscape. It is important that their number and size are minimised. The best way to reduce the number is to design simple junctions. It is also possible to mount some signal heads on lighting columns as Nottingham did in the past and other highway authorities currently do. *We will consider mounting signal heads on lighting columns where moving the lighting column to the signal position will not unacceptably reduce the lighting level. It is vital that the column is designed to take the extra loading and that safe electrical separation is achieved within the column.*

A large number of signal poles and heads creates a visual obstruction, a maintenance burden and a greater use of electricity. Unlike most other highway authorities, Nottingham City Council normally uses four poles and signal heads at all pedestrian crossings. This is unnecessary on single carriageway roads where one pole carrying the primary head and another carrying the secondary head and provides adequate visibility. *We will consider the use of two poles at pedestrian crossings of single carriageway roads, unless there are strong safety issues that require a more robust approach based on visibility and traffic conditions.*



Maid Marian Way - anti-flyposting treatment



Clumber Street - signal backing boards

Streetscape components



Market Street/Upper Parliament Street -
cranked signal poles

The large backing board and reflective white strip worsen the visual impact of signals and they are not used in London other than on some streets where traffic speeds are high. *We will not surround signal heads with backing boards and white reflective strips.*

Cranked signal poles cost more and look anomalous in the street, where most other features are horizontal or vertical. *We will use side-mounted signal head brackets in preference to cranked signal poles when footway space is tight.*



Maid Marian Way - Carefully mounted
cabinets

Traffic signal controller cabinets are utilitarian structures that can reduce footway width and attract flyposting. It is possible to amalgamate cabinets for separate junctions into fewer but larger centrally positioned cabinets. Cabinets can also be positioned to blend in against a background of buildings. *We will amalgamate separate signal controller cabinets into fewer larger cabinets and mount cabinets at a height and in a position that relates well to adjacent structures.*

Street lighting

The design of column, bracket and lantern should be simple and unobtrusive. *We will use columns that have flush fitting doors; lanterns with photoelectric cells integrated into the profile or in the post top as a functional finial; and brackets on a five-degree tilt and configured so that the lens is horizontal.*



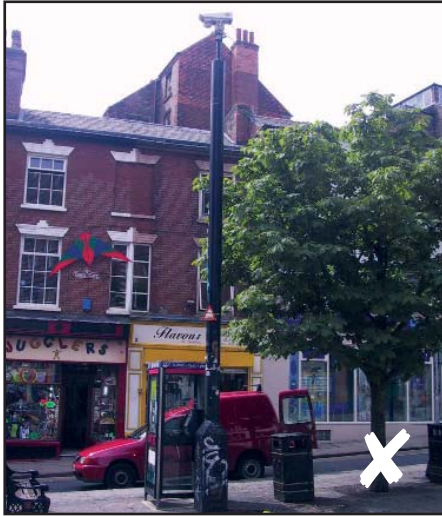
Maid Marian Way - Signal head on new
street light

Signal heads can be mounted on lighting columns, removing a pole from the footway and providing good illuminance at crossings. *We will position lighting columns at junctions and pedestrian crossings to enable primary signal heads (and associated pedestrian heads and push buttons) to be mounted on the column.*

There is a need to provide structures for the occasional display of banners that advertise local events and show artwork. Lighting columns are better for this purpose than bespoke structures that add to the number of obstructions on the footway. *We will design lighting columns in areas where banners might be displayed to be capable of carrying banner fixings and to withstand the extra wind loading generated by banners.*

Footways are often less well illuminated than carriageways. *We will illuminate footways in areas of heavy pedestrian use with lanterns at a lower mounting height but sharing the same columns as the carriageway lighting.*

Streetscape components



Carlton Street - lumpen CCTV equipment

Lamps that produce white light replicate daylight conditions and improve colour rendering of objects and faces making people feel safer and improving the quality of CCTV images. *We will use whiter light lamps in streets when new lighting is installed.*

CCTV cameras

Our CCTV cameras and columns are imposing structures due to their size and position at points of highest visibility. The base of the column is particularly bulky. The traditional styling of an intrinsically modern piece of equipment is inappropriate. It is now possible to obtain CCTV cameras that are comparatively small and stylish. *We will use smaller cameras such as the Delaware Metal Mickey, separate street cabinets to house the necessary electronics and slimmer CCTV columns instead of the 'cabinet base' style columns.*



Old Market Square - Broxap Titan

Litter bins

Bins that are open topped are difficult to empty because they fill with water and litter blows out when full. Stainless steel bins with solid sides show dirt badly and are prone to fly posting. Stainless steel bin designs that retain the style and detailing of traditional bins are clumsy hybrids. Casings with 120 litre wheelie bins are very imposing in the street and are only needed close to takeaways. *We will therefore use closed top stainless steel bins with a perforated casing, no "Litter" sign, in a 115 litre size with a standard galvanised liner (other than outside takeaways), mounted vertically and bolted to concrete plinths. The Broxap Titan is suitable.*



Long Row - post mounted bin

Post mounted bins are prone to leakage onto the pavement below, often overflow or block due to their small size, look awkward and are a hazard for visually impaired people who cannot detect them with a cane. The post-mounted bins beside bus stops are an example of these problems. *We will not mount bins on posts or columns and will remove them from bus stops.*

Streetscape components



St Peter's Gate - bin outside fast food restaurant

Fast food restaurants that offer takeaway food generate large amounts of litter and require extra bins. Operators are often encouraged to provide bins in front of the restaurant. These are rarely co-ordinated in style with adjacent street furniture and occupy valuable footway space. *When a planning application to open a new fast food takeaway is being considered, the loss of pavement space to extra bins will count against the applicant. Any new bins that are provided by the operator must be the corporate standard (see previous page).*

Seating

In a city centre location seating is subjected to considerable wear and tear. It is therefore essential that seating is robust. Metal is less vulnerable to vandalism than wood. *We will use brushed finish stainless steel seats such as the Ollerton M3, with integral arm rests to deter rough sleeping and help people sit down and stand up.*



Fletcher Gate - Ollerton M3 without arm rests

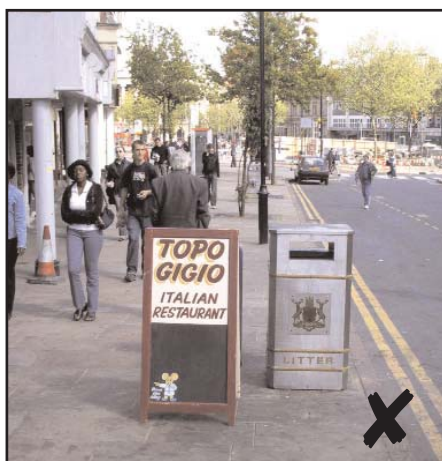
It is unpleasant to sit very close to bins, especially in summer where smells and wasps are bad. *Bins will be positioned more than 1m from seats unless this will cause an obstruction.*

Telephone kiosks

Many payphones are underused following the proliferation of mobile phones. They have become obstructions on the street. *We will work with payphone operators to remove excess boxes from locations where there are more than one.*

Advertising panels

'A' boards or "sandwich boards" are placed by businesses on the footway outside their premises to advertise their services. They are messy, obstruct pedestrian movement and endanger blind and partially sighted people. *We will make a concerted effort to remove the 'A' boards.*



Long Row West - A board

Streetscape components



Angel Row - Townscape cycle stand

Cycle parking

Cycle stands need not be fancy. Sheffield style hoop stands are simple and effective. Tapping rails allow cane users to detect them and provide an extra fixing point for bicycles. We will use a Sheffield style brushed finish stainless steel hoop, such as the one produced by Townscape. All stands in a row need tapping rails.



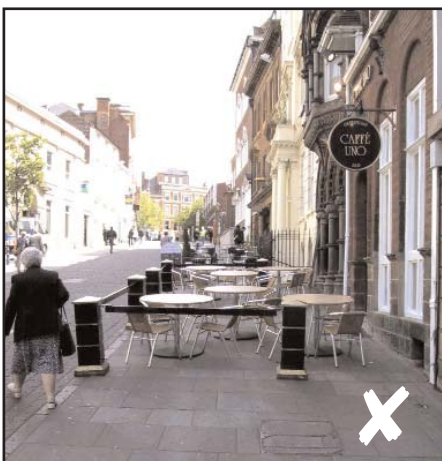
Mount Street - pedestrian safety barrier

Pedestrian safety barriers

Pedestrian safety barriers can be an effective road safety tool. However, excessive amounts have sometimes been used. Barriers narrow footways by 400mm, prevent pedestrians crossing away from designated routes if they judge the road to be clear, reduce intervisibility between motorists and wheelchair users and endanger people who decide to jump over or go round them. They are also ugly. We will use fewer pedestrian safety barriers on the pavement edge. The scope for reducing safety barriers is greater when speed reduction measures are employed.

Bollards

Bollards are occasionally needed to prevent vehicular overrun. They should not present a trip hazard by being too low or be prone to denting. We will use a simple brushed finish stainless steel shaft bollard with a dome top, such as that available from Townscape and reinforce it using concrete. Bollards will have a diameter of 114mm, wall thickness of 3.05mm and overall length of 1300mm.



Low Pavement - cafe blocks route

Pavement cafes

Pavement cafes should be located in accordance with the Nottingham City Council Pavement Café Design Guide to ensure seating areas are located clear of main lines of pedestrian movement.

Streetscape components



Heathcoat Street - cafe respects route

Public art

Public art is an important component of improving the streetscape environment and animating public space. It can inject symbolic meaning or beauty into functional objects like railings or seats, helping to create a sense of place and local identity. *We will use public art to reinforce the identity of the City and to celebrate civic pride and achievement.*

The inclusion of artists on project design teams can ensure that artistic qualities are integrated into the design of the public realm and that opportunities to carry out individual elements of public art are co-ordinated with the overall design. *We will highlight opportunities for public art within project design briefs.*



Stoney Street - tactile architectural relief

Often public art is commissioned and installed with little thought for subsequent maintenance implications. *We will ensure that adequate funding and resources are committed to ensure the long-term success of public art.*

Historic street furniture

Original items of street furniture are part of the character of the city centre, adding special interest and historical context. *We will retain and repair such items in their original location unless the maintenance costs become unsupportable.*



Cheapside - historic street lights

Streetscape components

Signage



Low Pavement - sign reflects complicated regulations



High Street - signs obscure attractive building



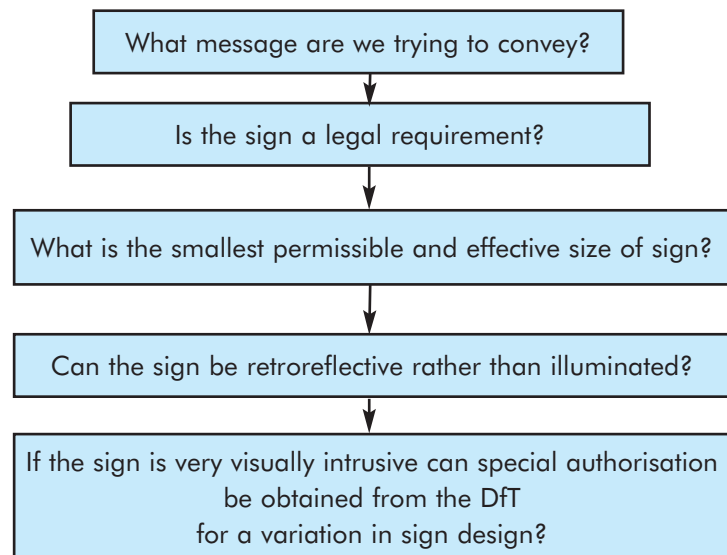
St. Mary's Gate - unnecessary no entry sign on right

Principles

The complexity of the traffic regulation orders governing access and parking in a street will determine the size and number of signs needed to enforce the regulations. *We will consider the effect each exemption to a general traffic restriction has on the size, number and ease of interpretation of the signage.*

Where there is flexibility in locating a sign it should be positioned away from attractive buildings.

When developing a signage specification a series of questions need to be asked in order to reduce the quantity of signage so that essential messages are conveyed.



Traffic signs

The Traffic Signs Regulations [General Direction 8(4)] allow 'No Entry' signs to be displayed on only one side of streets that have carriageways narrower than 5m. *We will only display 'No Entry' signs on one side of roads that are narrower than 5m.*

Temporary signs are often not removed. *We will include a specific provision and timescale in contract documents for the removal of temporary signage.*

Streetscape components



Lower Parliament Street - externally illuminated sign light backwash

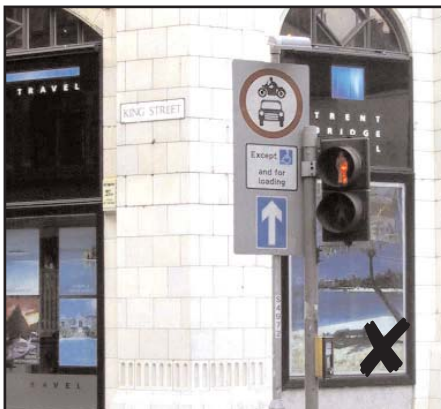
The type of light currently used to externally illuminate signs is unattractive due to its bulk and drooping profile, which means the lit bulb is visible from behind the sign. We will use a slimline horizontal sign light such as the Simmon Signs LUAIP56.

Sign posts and the rear of signs should be colour co-ordinated. We will match the colour of sign posts and sign backs.

Sign posts are prone to corrode where sign caps are not used. We will always use sign caps.

Signs need to be robust and durable. We will specify signs that are made from 3mm aluminium with a minimum seven-year life.

When traffic signs twist they are rendered useless and look messy. We will combat sign twisting by mounting signs at a minimum of 2.3m and using aluminium anti-rotational clips. A single square post or cantilevered construction with adequate foundations will be used in preference to two posts.



King Street - grey backing board

Yellow backing boards are used to increase the prominence of signs and grey are used to combat sign twisting. However, they increase the surface area of signs blocking views beyond. We will not use yellow backing boards and will only use grey if it is vital to combat a twisting problem that cannot be solved with the use of a square pole or aluminium anti-rotational clips

Information boards

The style of Nottingham's information boards matches the old finger post pedestrian signs that have been replaced, leaving the boards looking old fashioned and incongruous. We will remove the information boards.



Forman Street - information board

Street Name Plates

Street name plates are an essential aid to pedestrian navigation. Attaching them to buildings makes them more visible, protects them from unsightly and costly damage and avoids creating a dirt trap on the footway. We will actively promote the fixing of street name plates to buildings and boundary walls and seek the co-operation of developers where new building takes place. The plates will be fixed at high level to walls on backing plates and cast in aluminium to ensure staining does not occur. In the Lace Market the plates will continue to be plum coloured to reinforce its distinctive identity. In other areas the plates will be standard black on white background with only the street name text showing.

Streetscape components

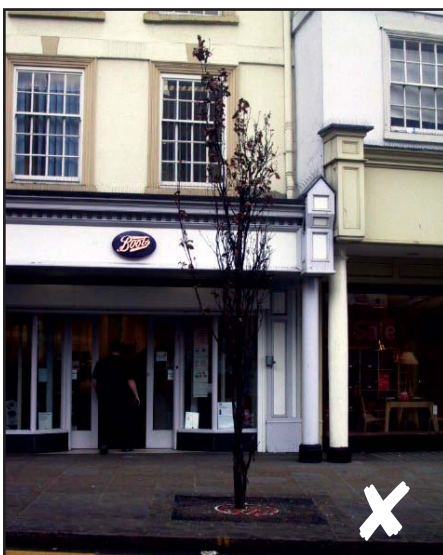
Planting



Castle Gate - vibrant trees



Bellar Gate - healthy trees



Long Row West - feeble tree

Principles

Vegetation in the street gives multiple benefits: it can introduce joyful colour, clean the air, provide shade and shelter, remind people of the changing seasons and improve the proportional relationship between low rise buildings and wide streets by providing enclosure. For these reasons trees and flowers are popular with the public. *We will introduce more planting into the city centre.*

Trees

Trees planted in the city centre in recent years have not thrived. Their poor health is a result of the combined effects of impermeable surfaces, vandalism, compaction of the soil, insufficient space for root growth, salt runoff from manual gritting and inappropriate choice of species. *We will ensure that trees planted in pavements are semi-mature and have a more fertile growing medium by using urban structural tree soil or rootcells (where tree pits are larger than 2sq m), an irrigation/aeration system under sealed paving and a maximised tree pit size.*

Tree grids are attractive ground surface features that tie the base of the tree into the surrounding paving. However they can become clogged with debris and be a trip hazard. This problem can be eliminated by using porous resin bonded gravel in combination with the grid. *We will use black iron tree grids such as the Greenleaf Kennet combined with a grey resin bonded gravel, such as Barden Quarry 10mm washed laid 75mm thick.*

De-icing salts and road water contaminated with oil can have a very damaging effect where it runs into tree pits. *We will endeavour to ensure pavements drain away from tree pits, minimise the use of de-icing salts, avoid heaping snow around tree pits and use suitably tolerant tree species where contamination from road salts and oil is inevitable.*

Trees are a maintenance burden, especially in the first three years after planting. *We will ensure that tree maintenance and replacement insurance contracts last for a minimum of three years.*

Streetscape components



Tollhouse Hill roundabout - award winning floral display



Castle Gate - oversized planters

Flowers

Nottingham in Bloom does an award-winning job of introducing displays of colourful flowers into the city centre. However, many of the displays are ephemeral and high maintenance, planters can be overlarge for the plants and some remain empty in the street after the flowers have withered. Planting structures that overhang footways below head height are a hazard. *We will create planting displays that are in proportion to the planters and remove structures from the street that will be empty for more than one month. Boxes, including window boxes and hanging baskets, together with all supporting structures, when projecting over the footway or a pedestrian area, should be located so as not to be a hazard to visually impaired people.*

