Streetscape Design Manual

OCTOBER 06

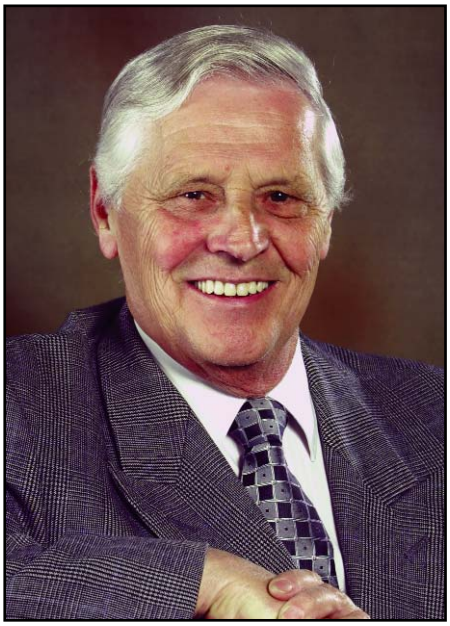
Nottingham Neighbourhoods

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

Nottingham
City Council

Contents

Foreword



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

"The City Council is committed to working at all levels to improve the streets and environment our communities live and work and move around in. This focuses on our neighbourhoods, supporting the work of Area Committees, and establishes a baseline of good practice that can be applied across all city streets including those important areas where people gather in District Centres and the City Centre. High quality paving and street furniture will complement our environment. Thorough and timely maintenance will ensure that the standards endure."

Introduction

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.
- Providing and maintaining a good quality environment engages community ownership and responsible citizenship
- 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, supporting 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.
- Visitors are attracted to Nottingham and report favourably to develop our reputation.
- Buildings can be appreciated.
- Meets central government objectives to improve public space.
- 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.
- Promotes an accesible environment to all members of our community

Status

The manual is the result of a collaboration of key people who oversee the design and management of our streets.

This edition has built on the success of the first streetscape design manual that only applied to the city centre. The scope has been extended to cover all the streets in the City Council's area outside the city centre.

The manual has political endorsement and is a formal statement of council policy. The manual does not consciously contravene any central government legislation or regulations that the council is statutorily obliged to comply with.

Structure

The Manual is in three parts:

Part A Principles & Vision

This section contains an explanation of streetscape design principles.

Part B Design Process

This section includes guidance on processes that can be used to deliver higher quality streets.

Part C Streetscape Components

Commitments are made to new design and maintenance approaches that meet 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 applies to all streets in the City (excluding the City Centre) managed or owned by the City Council.

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. Other environments will require sensitive and sometimes subtle enhancement to make them an acceptable environment and to encourage community ownership of these areas as part of their neighbourhood.

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 key component of neighbourhoods, 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 and district centre managers. It allows sensible compromises to be reached so the overall design concept can be 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: Designers and contractors should aim to salvage and reuse materials on a scheme to reduce expenditure 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.

Standard products: Standardisation of materials and equipment helps to achieve a calmer and more consistent look to the street. There is a significant contribution to the effective use of budgets. On a city wide scale this provides significant opportunities to achieve economies of scale. It also make sit easier to source replacements for damaged items and reduces waiting times for replacements which strengthens the perception of the community that streets are cared for.

Maintenance is vital: Standards of maintenance probably have a greater effect on people's perception of street quality than the original design. Good design should consider how a scheme will be maintained in the future and looks to remove conflicts to reduce the future maintenance burden by selecting materials on the basis of whole life costing and sensible positioning of street furniture to make management and cleansing easy.

Design process

Project management

Project management is the use of processes to conrol the delivery of projects to ensure they are delivered on time, to budget and meet their objectives. The key role in this delivery is the project manager who is responsible for day to day management using project management processes in accordance with a recognised system such as PRINCE2.

Projects have a definite life and are intended to facilitate deliverable outputs. Broadly project management will have a start up stage, a delivery stage (which may be subdivided into sub-stages) and an end. Throughout these processes the quality and ability to deliver the required outcomes in time and to cost need to be reviewed and assessed against quality criteria. At the end of a project it should be possible to demonstrate objectives have been met, identify areas requiring further attention or specific maintenance requirements and document what went well and what did not to enable lessons to be learned.

Design briefs

Successful projects start by clearly setting out purpose, scope and what should be delivered. This is likely to be linked to a programme of other projects linked to a common purpose or set of objectives.

The mandate for a project gives a project manager authority to take a project forward and establishes what is required and who the project is for (Customers).

Where the information about the project is clear and accurate there is less likelihood of misunderstanding and delay occurring later in the project.

Requirements that must be incorporated and those that should be explored should be quantified at the outset. The Streetscape Design Manual is a quality expectation for streetscape design and will be recognised as such in the project management processes.

Risk management

The exposure to risk in a project is managed by taking action to keep that exposure to an acceptable level in a cost effective way. This requires risks to be identified and recorded in a risk log identifying characteristics such as description, status, who owns the risk, and category. Once logged risks can be evaluated based on the probability of an event happening and the impact it would have on the project.

This allows counter measures to be considered and actioned. Project managers using systems such as PRINCE2 will look at risks and review these at key stages of the project.

Design process

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 these need to be monitored to ensure 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 in the future.* Development control powers can also help address other forms of nuisance such as the generation of litter at fast food outlets.

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, and any implications for utilities (electrical feeds etc).
- 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 work with the design team to audit and advise on the maintenance implications of the choice of materials and detailing. They know which areas of footway get regularly over-run by vehicles, allowing designers to either prevent the movement occurring or produce details that can withstand vehicle loading. 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. The implications of the whole life cost implications and the affect on the ability to manage assets should be considered and understood as part of the planning process.

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.

Clutter 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

Alfred Street South/Stonebridge Road
- a complicated alignment

Bathley Street - kerbs parallel to building line

Villa Road -
large corner radius and wide crossing

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.*

An understanding of the relationship between pedestrian and vehicular traffic in a street is important for design. This allows the correct use of material types, edge detailing and other components to be specified 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, inconvenient pedestrian routes 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. Where this leads to occasional overrun, additional construction depth will be used to resist damage.*

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*

Villa Road - narrowed width speed table

Upper Parliament Street - plateau crossing

turning into or crossing. We will also reduce the set back of the observation point recommended in the Design Manual for Roads and Bridges (national guidance) to the absolute minimum that provides 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 or maintenance works. *We will narrow the entrance to side streets. Build outs will be used where there are parking bays behind on the side street. This will be given a high priority in the city centre and on routes that are or are proposed to be important pedestrian routes. Before narrowing is agreed a risk assessment should be carried out to determine whether there are alternative routes for vehicles if utility or maintenance 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.*

Plateaux crossings of busy roads

Plateaux with ramped approaches will slow traffic on the approach to pedestrian crossings thereby improving pedestrian safety. *We will consider the introduction of plateaux on pedestrian crossings over main road accesses to important district centres or access gateways in relation to housing estates and arterial roads where a major safety problem exists or is anticipated.*

Farnborough Road - *inconsistent paving*

Mansfield Road, Sherwood - *small unit paving*

London Road/Victoria Embankment - large rectangular re-inforced slabs

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)

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 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 be capable of accommodating this loading.

Main paving types

We will limit the use of materials used for the footway to: dark grey Charcon Ultra-pave (formerly called City Paving), large 750x600mm reinforced concrete slab, and blacktop. In the context of limited budgets the use of more costly materials has to be carefully justified. 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.

Streetscape components

Rock Street, Bulwell - ugly stack bond

King Street/Queen Street - *historic fanned bond*

Northern Court - *pavement interrupted*

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 on footways.*

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

Historic Ground Surfaces

Some locations in the urban environment retain historic characteristics both in the materials used or the layout. York stone fan paving is an example of this, (where economically feasible) we will aim to protect these areas of historic ground surface.

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.*

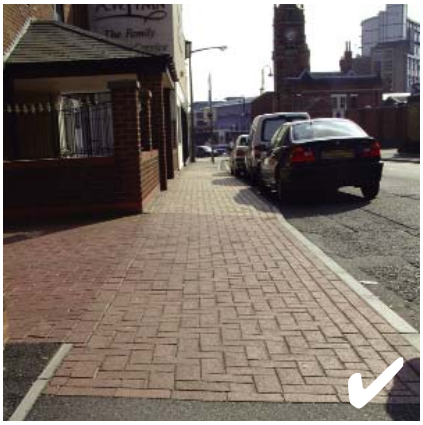
Kerbs

Granite kerbs are more durable and attractive than concrete. *We will use grey granite kerbs with Charcon Ultra-pave (formerly City paving) to complement their grey colour. In some instances priority should be given to retaining existing pink granite kerbs by lifting and recycling these, especially where these kerbs are used widely in any locality.*

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. The crossover surface will require additional construction depth and the surface capable of withstanding the wear and tear of vehicular movements.

Streetscape components



Robin Hood Street - *pavement continuous*

Contrasting tactile paving

Maid Marian Way/Friar Lane - *cropped setts furniture enclosure*

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 the boundary between public and private land will be marked using appropriately spaced small metal studs.

Tactile paving

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 and where Charcon City slabs are proposed 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).

Street furniture can present a hazard to blind and partially sighted people. Some schemes have used cropped setts 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.*

Streetscape components

Carlton Road - bus platform

Goldsmith Street/Burton Street - no *inset tactiles*

Pilkington Street, Bulwell - *inset cover*

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 use materials contained in Table 1 for the construction of bus platforms.*

Utility inspection covers

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

Carriageway surfaces

Principles

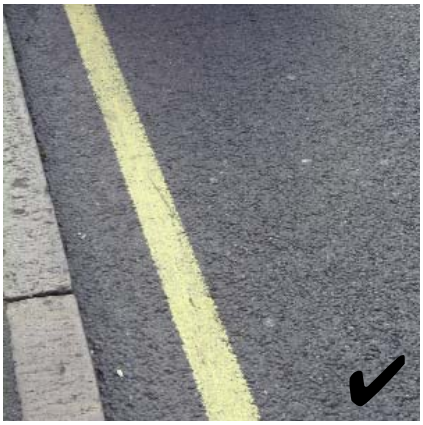
The carriageway surface occupies the greatest extent of a typical street and therefore has a marked impact on its appearance.

The choice of materials will take into account the required texture, smoothness, skid resistance, drainage, traffic management 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 a blacktop material 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 Charcon Woburn graphite concrete setts.*

Streetscape components



Carlton Road -
stone masticated asphalt

Rock Street, Bulwell - layby

Southchurch Drive - paved splitter island

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').*

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, bus lanes or cycle lanes. In addition red materials will not be used for any purpose on the carriageway.*

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.*

Streetscape components

Mansfield Road, The Forest access - red bus stops

London Road - *coloured anti-skid surface*

Pemberton Street - *intrusive lining*

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 anti-skid surface, such as Prismo Suregrip to match the carriageway surface.*

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 100mm throughout the rest of the city when roads are re-surfaced.*

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.

Streetscape components

Clumber Street - telephone box in busy street

Stoney Street - building mounted light

Mansfield Road - *ordered street*

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.*

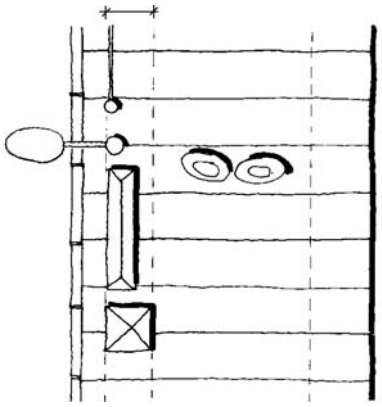
Zoning the footway provides order to furniture. It can be divided into four zones: kerb, furniture/planting, unobstructed and frontage. The unobstructed zone will take precedence and footways of less than 2000mm will not be able to incorporate a furniture/planting zone. The relative importance, scale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

- *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:

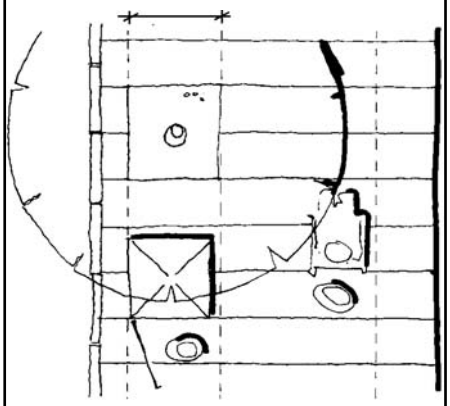
  500-600mm: Accommodates barriers, bollards, streetlights, control boxes, benches, bins and cantilevered bus shelters with perch seats but with no end panels.

Streetscape components

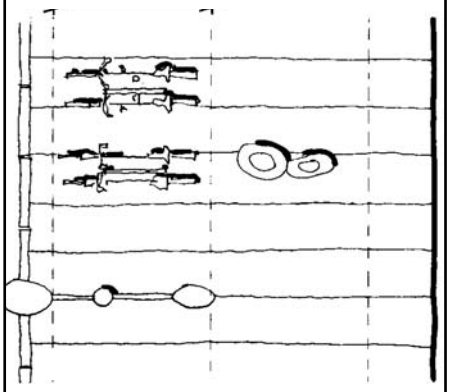
500 - 600mm



1000 - 1200mm



1600 - 2000mm



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

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.

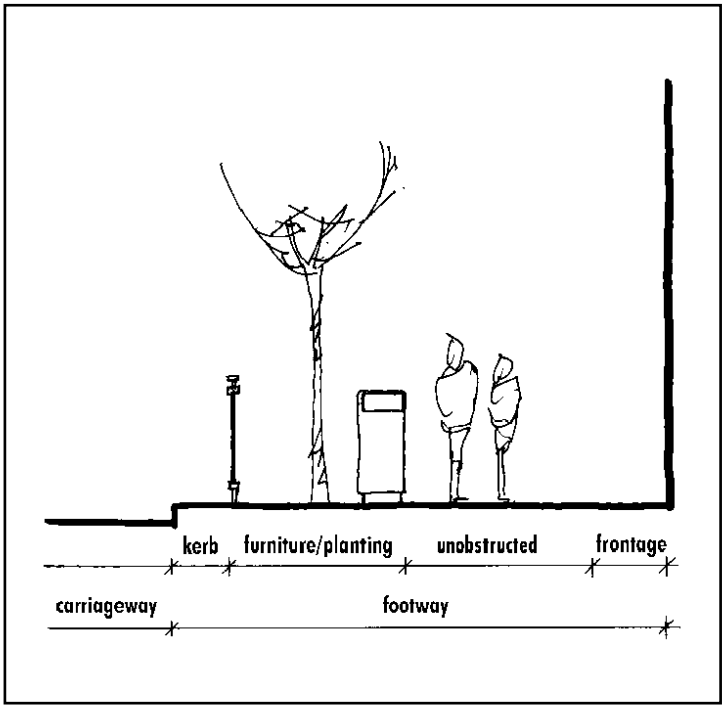
- Unobstructed zone: For the unhindered movement of pedestrians along the street. Entirely free of objects. Along these pedestrian routes furniture should generally be located to achieve the following clear widths:

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

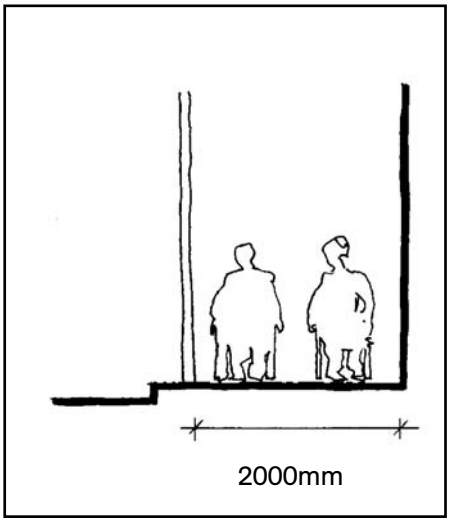
  1500mm: usually sufficient, giving space for a wheelchair user and walker to pass one another.

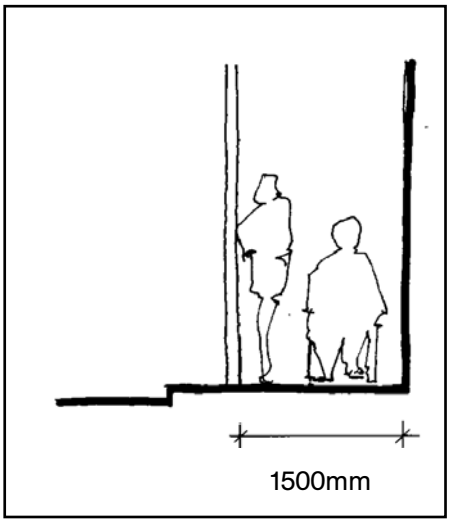
  1000mm: absolute minimum width for a maximum length of 6000mm.

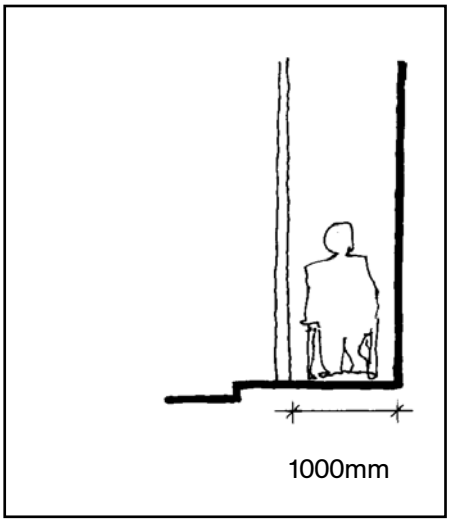
Frontage zone: The area between the unobstructed zone and the building, which should be kept free of furniture because it provides the best route for visually impaired people to walk along the street using continuous building facades as a guide. However, there will be occasions when pavement cafes are



Streetscape components







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 discouraged 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 are an inauthentic traditional style. A simple contemporary style of furniture is suitable, especially since the tram has successfully introduced a new aesthetic into city streets. *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. It may be necessary to replace a type of equipment (such as lamp columns) along a coherent section or all of such streets. In these cases the relative benefits of simple standard equipment should be assessed against maintaining a look that could be coming to the end of its design life.*

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. In the city centre and large district centres we *will paint the whole length of all columns and poles NET silver (RAL9006) with a factory applied coating of anti flyposting paint,*

Streetscape components

Wheeler Gate - piecemeal introduction of new style

Wollaton Street - anti-flyposting treatment

Burton Street/Talbot Street
- *Signal head without backing board*

such as Dacrylate Margard, to the lower 2.3m. At other locations green has been extensively used and this will be maintained (see Table 2 palette C).

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. *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 eletricity. In the past, Nottingham City Council has used four poles and signal heads at all pedestrian crossings. This is unecessary on single carriageway roads where one pole carrying the primary head and another carrying the secondary head provides adequate visibility. *We will consider the use of two poles at pedestrian crossings on single carriageway roads unless there are strong safety issues that require a more robust approach based on visibility and traffic conditions.*

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 in sensitive conservation locations. At other locations backing board will be omitted unless it is concluded they are an important safety requirement (such as high speeds and cluttered environments where visibility is critical).*

Streetscape components

Radford Road/Wilkinson Street -
cranked signal poles

Maid Marian Way -
Carefully mounted cabinets

Nottingham Road/Haydn Road/Northgate -
Signal head on street light

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.*

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 consider amalgamating separate signal controller cabinets into fewer larger cabinets and mount them at a height and in a postion 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 as part of palette A and some palette B schemes (Appendix 1). Existing standards will be retained at all other locations.*

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 where practicable to enable 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 are to be displayed to be capable of carrying banner fixings and to withstand the extra wind loading generated by banners.*

Footways can be less well illuminated than carriageways, especially in areas where tree canopies create dark areas. *We will illuminate footways in important pedestrian areas or where there is a history of criminal or anti-social activity with lanterns at a lower mounting height but sharing the same columns as the carriageway lighting.*

Streetscape components

Arkwright Street/Radcliffe Street - CCTV equipment

Old Market Square - Stainless Steel litter bin

Long Row - *post mounted bin*

Lamps that produce white light replicate daylight conditions. These 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 covered in palette A and some palette B areas (refer to Table 2) and where there is a history of criminal or anti-social activity. When new lighting is installed, this will be high pressure sodium lamps at high wattages and white light CDM/T in the back lights where fitted.*

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.*

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. In areas finished in palette A and B we will *therefore use closed top stainless steel bins with a perforated casing in a 120 litre size with a grey wheelie bin mounted vertically and bolted to concrete plinths. The Broxap Derby is suitable. In other areas a standard specification bin will be used (see Table 2).*

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

Chapel Bar - Ollerton M3 seat

Southchurch Drive - *'A' boards*

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 Table 2).*

Seating

Seating is often subjected to considerable wear and tear. it is therefore essential that seating is robust. Metal is less vulnerable to vandalism than wood. In palette A and B *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. Other seating provision will be in accordance with Table 2.*

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 discourage the use of 'A' boards.*

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. These are cost effective and durable and will be used in all areas except when in the vicinity of traditional black street furniture where the black painted equivalent will be used.*

Streetscape components

Angel Row - *Townscape cycle stand*

Mount Street - pedestrian safety barrier

Low Pavement - *cafe blocks route*

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 thicknesss of 3.05mm and overall length of 1300mm for all palette A and B areas (refer to Table 2). For other locations bollards need to be a standard type and form and will be either black painted steel or concrete (see palette C in Table 2).*

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.

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.*

Often public art is commissioned and installed with little thought for subsequent maintenance implications. *We will*

Heathcoat Street - *cafe respects route*

Stoney Street - tactile architectural relief

Cheapside - *historic street lights*

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 some streets, adding special interest and historical context. *We will retain and repair such items in their original location unless the maintenance costs become unsupportable.*

Signage

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. There is often a risk averse culture of over complicating signing to meet the potential challenge through the appeals system. This fails by making signs over complicated to the extent they are misunderstood. *We will consider the effect each exemption to a general traffic restriction has on the size, number and ease of interpretation of the signage. We will scrutinise the statutory regulations to utilise the scope within them for providing sensible simple direct signing messages and record the justification for using these signs to support enforcement activities*

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

What message are we trying to convey?

↓

What is the smallest permissable and effective sign and what is the minimum number of signs required?

↓

Can the sign be retroreflective rather than illuminated?

↓

If the sign is very visually intrusive can special authorisation be obtained from the DfT for a variation?

↓

Is the sign a legal requirement, could the regulations offer a more flexible approach?

↓

The rationale for final design is recorded to assist enforcement, capturing options considered and their impact.

Streetscape components

Commercial Road/Main Street, Bulwell - sign reflects complicated regulations

High Street - signs obscure attractive building

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

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. The chevron signs at roundabouts will be omitted at locations where the speed and behaviour of traffic does not require such provision to promote opportunities for quality landscaping and planting to be appreciated.*

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

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 in all palette A and B areas (see Table 2).*

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

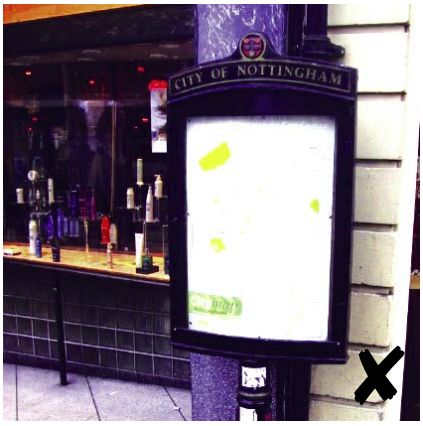
Signs need to be robust and durable. *We will specify signs that are made from 4mm aluminium with a minimum seven-year life.*

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.*

Yellow backing boards are used to increase the prominence of signs and grey are used to combat sign twisting. However, they

Lower Parliament Street - *externally illuminated sign light backwash*

King Street - *grey backing board*



Forman Street - information board

increase the surface area of signs blocking views beyond. *Yellow backing boards will only be used as a specific accident reduction measure that meets predicted reduction targets.*

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 to avoid vandalism and damage. In areas such as the Lace Market the plates reflect a community identity, these will continue to be used to reinforce this distinctive identity. In other areas the plates will be standard black on white background with only the street name text showing.*

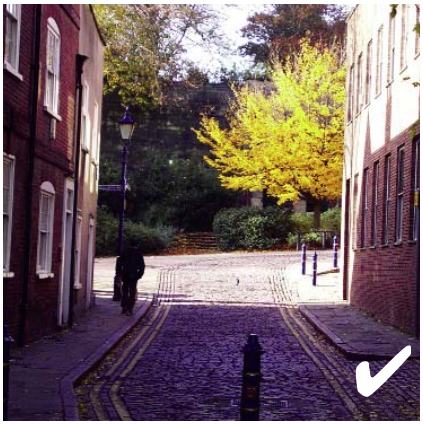
Planting

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 and work with Nottingham in Bloom and local communities to maximise the opportunity elsewhere for planting. This includes minimising the impacts of works on existing areas of planting where possible.*

Trees

Many trees planted 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*



Castle Gate - vibrant trees

Wollaton Vale - healthy trees

Southchurch Drive - dead tree

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. *For sensitive areas we will use black iron tree grids such as the Townscape Baltimore combined with a grey resin bonded gravel, such as Barden Quarry 10mm washed stone laid 75mm thick. Where the tree grids are not present around existing trees the pit will be sealed with resin bonded gravel to prevent litter and compaction of the soil around trees.*

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.*

Edwards Lane Island -
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.*

Streetscape components

Table 1 **Surface treatments**

The table below shows generic street types in relation to the types of material appropriate for use in these areas.

Street Type	Footway Surfaces	Tactile Blister Paving	Kerb	Block Paving	Street furniture
Pedestrian areas of local importance such as large district centres	Charcon Ultrapave (former City)	Grey Granite or standard concrete modular units depending on conservation area status	Grey Granite	Charcon Woburn	As set out under palatte B in Table 2 – Good quality range of features
Low and medium pedestrian flows, smaller district centres	Blacktop	Standard modular units (set out in accordance with national guidelines).	Grey concrete		As set out under palatte C in Table 2 - Standard features aimed at setting good quality durable and practical standards of provision
Areas with existing high quality consistant materials	Maintain or repair existing*	Concrete modular or grey granite	Maintain or repair existing	Tegular	Appropriate palette to be used based on status of environment and budget available.

* It is not intended that footway paving slabs will be retained unless they form part of a wider co-ordinated district centre scheme

Table 2 **Palette of materials to be used in the City of Nottingham**

	Palette B Important pedestrian areas of local importance such as large district centres	**Palette C** Medium and low pedestrian flows, smaller district centres and other roads
Street Lighting	Milewide lantern, silver	City Green – standard columns – spec required
Litter bins	Broxap Titan	Broxap Derby
Cycle stands	Sheffield hoop with tapping rail	Sheffield hoop with tapping rail
Bollards	SS	Painted metal Or Concrete Specs required
Sign lighting	Slim line horizontal units	Other – spec required
Seats	Ollerton M3	Other – spec required

Notes