



3 Design process

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Design team

Excellent streetscape design requires careful attention to detail, a broad range of skills and a real understanding of issues, conflicts and needs. A range of skills is required in the design team; multidisciplinary design teams are therefore essential.

The terms 'design team' and 'designer' are used in Streetscape Guidance to describe both project teams and designers of specific areas of work. Irrespective of the size of the project or task, TfL advocates multidisciplinary working where advice is sought from relevant specialists to achieve streetscapes that are consistent with excellence.

The size and nature of projects will influence the method of procurement of the design team. Criteria for procuring excellent design teams need to be established for selective awards. Design teams should include:

- Design specialist (urban designer, landscape architect or architect) to translate the vision described in a brief and develop a design consistent with TfL's Streetscape Guidance
- TfL Modal champions are to ensure road safety, bus priority, walking, cycling and accessibility objectives for the project are met. Modal champions are the project budget holders
- Highway engineer to ensure that design details are safe, durable and are practical to construct
- Traffic engineer to make certain that the transportation objectives are achieved and that TfL's policies in regard to sustainable transport are included in designs
- Maintenance engineer to ensure that both the routine and longer-term maintenance needs of the project are considered. The maintenance engineer will also ensure that the proposed design takes account of health and safety

- Environmental Manager to ensure Mayoral and TfL environmental objectives are achieved. The Environmental Manager will also ensure that any adverse environmental impacts are identified and mitigated
- Street lighting engineer is needed in recognition that London is a 24-hour city. Street lighting needs to be designed to take account of aesthetics and technical performance
- Construction Design Management (CDM) coordinator to ensure that the design proposals comply with the CDM Regulations 2007
- Access consultant to advise on the design proposals in respect of the technical and functional design requirements of users, especially equality and inclusion target groups. Access consultants may also be required to complement site supervision to ensure that equality and inclusion issues are addressed, particularly where there are variations in the design specification
- Arboriculture and landscape manager to ensure existing trees and plants are retained and proposed trees and plants can grow to achieve the design intention
- Key stakeholders, including local authorities, police, emergency services and security advisers, who may have access or operational requirements which need to be accommodated in the design

TfL is taking steps to ensure that the requirements of the Disability Discrimination Acts are applied to the TLRN through audits and remedial action where necessary.

Section 17 of the Crime and Disorder Act 1998 requires design teams to do all that is reasonable to design out crime. All projects which impact upon the streetscape should seek to minimise crime to produce a safe and secure environment where people do not feel under threat.

Design teams should therefore achieve the best balance between designing out crime and the other key design principles. TfL's Transport Community Safety Managers can provide advice to help design teams meet their duties under the Act.

Core functions of the design team will be to ensure consistency across the network in terms of user safety, serviceability and sustainability objectives.

Design for London

Design for London (DfL) has been established by the Mayor to support the delivery of well-designed projects across London. One of its key roles is to support TfL in its aim to deliver design excellence through membership of the Streetscape Review Group and as a key resource across the Greater London Authority Group. DfL should be regarded as a key collaborator to help to deliver TfL's vision for the world's best-managed streets for a world-class city.

Design process

A project inception meeting should be held to discuss team management procedures, composition of the design team, roles of members and terms of reference. The inception meeting should also be used to discuss the project's vision, develop collective ownership and ensure that there is a unified understanding of the project's objectives. The role of the project manager should be agreed at the project inception meeting. The project manager will usually lead the design team. If this is not the case, a chair should be appointed.

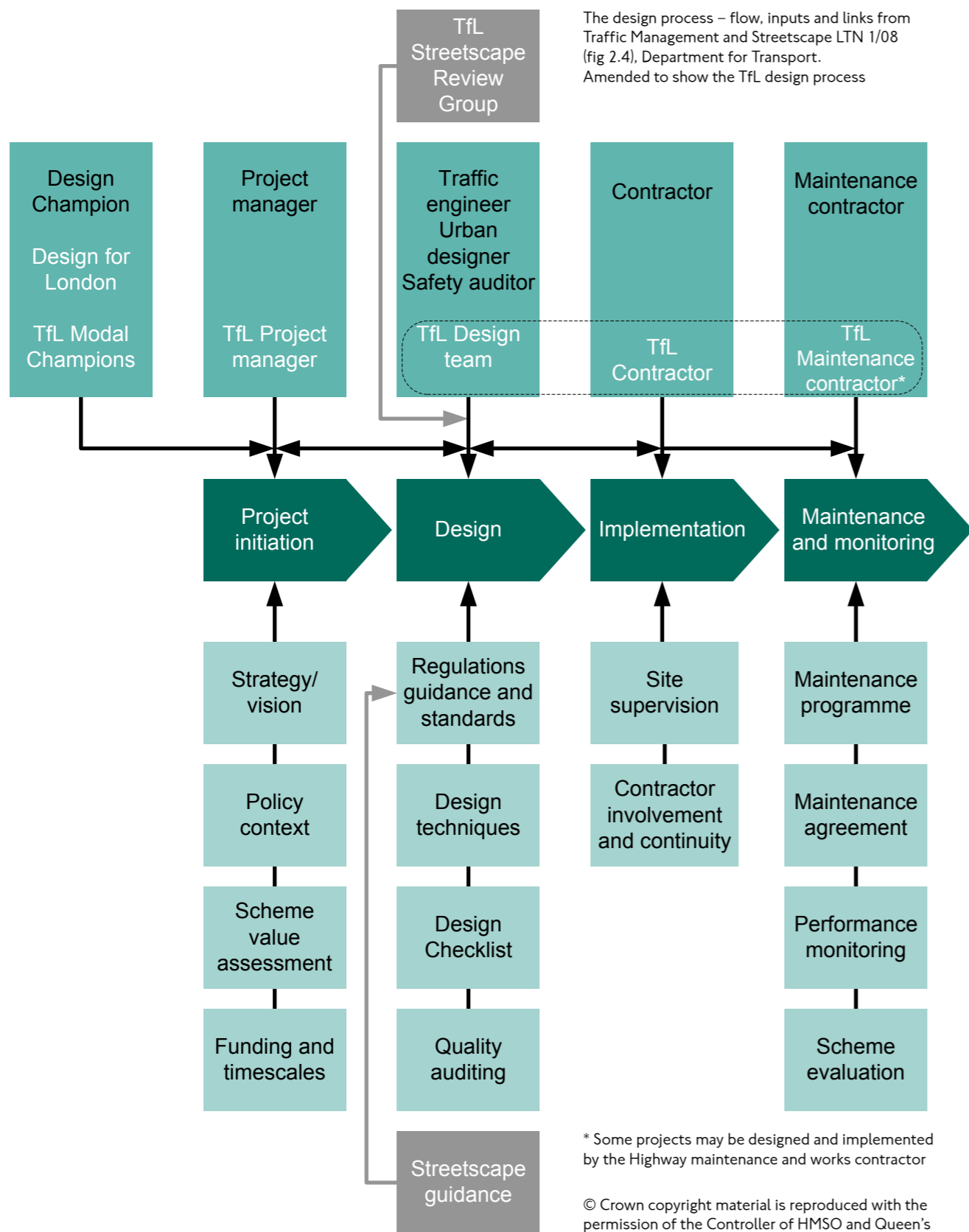
TfL should decide on the type and level of detailing required for the specific project. The use of Streetscape Guidance details will help to deliver the required standards and should also reduce the amount of time spent on the design process and reduce costs.

Streetscape Guidance details may not, however, be suitable for some projects and new details will need to be prepared. It is important to recognise that good detailing is vital to producing excellent streetscapes.

If new details are required, members of the design team should be appointed to draft new details for subsequent submission to TfL. The detailing of finishes and changes to surface materials are especially important.

An understanding of the procurement method is also important since it can affect the level of detailing required on construction drawings.

In the event that the contractor sub-contracts elements of work to others, extra care may be needed by site supervision staff during the works to ensure that excellence is maintained. Tendered contracts are likely to require more detailed drawings and could also require more supervision.



Streetscape Guidance exceptions procedure

If the design team propose to use materials or street furniture not compliant with the Streetscape Guidance Palette of materials or to implement alternative details, the project manager should request approval for the exception.

The project manager should contact the Streetscape Officer for an application for exception form which will be submitted to the Streetscape review group (SRG) for approval. The SRG may require detailed information including plans and details to make their decision.

All applications for exceptions are considered by members of the SRG and, where necessary, further advice is sought from TfL specialists outside the SRG. Decisions are recorded by the Streetscape Officer to inform future applications for exceptions and revisions of the Guidance.

It must be remembered that the best designs can be ruined by poor workmanship and a lack of thought and supervision during construction. Where the works contractor is known, they should become a co-opted design team member. The contractor should be asked to comment on any problems they can foresee during construction at regular meetings.

The designer will need to ensure that appropriate health and safety measures have been taken in the design and specification process to satisfy statutory requirements.

Risks will need to be assessed and minimised. Key issues in the design of streetscape include manual handling of materials and dust inhalation in cutting concrete or stone. For example, manual handling of 600mm by 900mm paving slabs is not acceptable.

A likely outcome of the assessment of this risk is the avoidance of manual lifting of paving slabs through the specification of the use of mechanical lifts, or the specification of alternative sized materials (subject to SRG approval).

Similarly, exposure of worker and the public to the risk of dust inhalation from mechanical masonry cutting is not acceptable. Avoidance for the need to mechanically cut should be considered, as should the use of alternative, smaller sized materials (subject to SRG approval).

Alternative designs through the use of mixing material sizes should also be considered. Avoidance of dust inhalation risks can be achieved by specification of the use of local exhaust ventilation, water suppression (in the latter case slurry run off must be processed separately) or arranging for materials to be cut to fit off-site.

Project design briefs

TfL is responsible for preparing design briefs for projects on the TLRN and other modal networks. Irrespective of the prime objective of the project, opportunities for streetscape improvements should be taken in accordance with the Streetscape Guidance.

More detailed and complex design briefs may require a number of skilled authors and time should be allowed for this in TfL programmes. Better quality information contained in a design brief will result in better understanding and timely completion in the later stages of the project.

The brief must communicate the project's objectives and vision to the design team. The vision can be described in either a detailed manner, when a very firm understanding of what the finished design must include, or in more general terms, when the design team needs to explore the potential of a range of solutions.

The design team is responsible for producing excellent designs which satisfy the brief. The design brief should make clear that a like-for-like replacement is not acceptable unless the existing provision is already world-class. The design brief should include the following:

- A statement of the vision for the project which will include the requirement for design excellence
- A statement of the objectives of the project. These objectives may be quite specific in terms of increasing footway space, the introduction of street trees or improving the amenity of the area covered by the brief, for example

The objectives should also relate to the Mayor's strategies, policies, and initiatives such as accident reduction or increasing the use of specific modes of transport

An objective should also be included that relates to the impact of the project on future maintenance needs

- Details of the Mayor's strategies, policies and initiatives that apply to the project. This must include the Transport Strategy and any Local initiatives that are pertinent to the design
 - A statement of the constraints on the project. These constraints must include details of any transport or planning constraint, overall financial limits of the project, the geographic limits of the site, completion dates of any key tasks or work elements. Other constraints that will limit the design team's use of space or materials must also be given. TfL should also describe how any political constraint might affect the design process or outcome
 - A statement requiring that the design team must include a qualified and experienced design specialist (urban designer, landscape architect or architect) who will be engaged in developing the streetscape proposals. The team must take specialist and expert advice in relation to access
 - Requirements for equalities impact assessment. The team must take specialist and expert advice in relation to equality and inclusion
 - Requirements for environmental impact assessment (EIA). The team must take specialist and expert advice in relation to EIA or environmental evaluation
 - Requirements for wider sustainability assessment to incorporate equality impact assessment, strategic environmental assessment and health impact assessment
 - Other specialist skills required should also be stated
- A statement of the likely procurement method of the works. If TfL can provide guidance to the design team on the likely method of procurement, should the project proceed beyond the detailed design stage, this should be included in the brief. This information will help the design team to understand how much detail needs to be provided on construction drawings and will affect the choice of materials or finishes
 - A statement describing the deliverables. This statement must specify not only design outputs in terms of drawings but also any contract documents, technical specifications, consultation materials, reports or risk assessments that are needed by TfL
 - Design teams must specify the construction process where they are unable to design out known risks
 - Contractors must prepare a suitable method statements for handling heavy materials, control of dust and other health and safety issues
 - A set of key dates for programming purposes
 - A set of performance measures and milestones within the project. Note that performance measures will need to be monitored for effectiveness following scheme completion
 - A statement describing TfL's requirements with regard to internal TfL and external liaison and approval processes which will depend upon the status of the project

Trials

Before being introduced to the TLRN, new types of equipment, techniques, products, materials, processes or services must successfully undergo trials as set out in TfL's procedure for trialling new products on the TLRN.

Reference

Greater London Authority:

- Commissioning a sustainable and well designed city. A guide to competitive selection of architects and urban designers, 2005