



IHT/CPNI Award – Security in the Public Realm

Project Title – Shoe Lane Quarter – Street Scene Challenge

Background

The City of London in partnership with Goldman Sachs sought the opportunity to evaluate the potential enhancements to improve the accessibility, safety, appearance and function of the Shoe Lane Quarter in the City of London. The project covers an area bounded by Fleet building to the north, Fleet Street to the south, Farringdon Street to the east and Wine Office Court to the west. The site falls within the Fleet Street conservation area, including the southern section of Shoe Lane, Poppins Court and St Bride's Street.

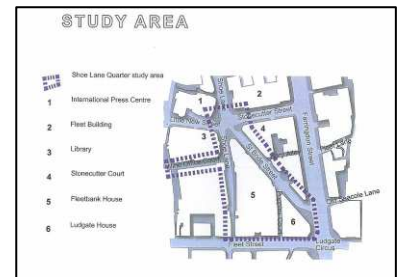
The Requirement

As part of the design of the scheme an ideal opportunity existed to integrate a complimentary and sympathetic security solution comprising hostile vehicle mitigation measures as part of the overall concept. As part of the concept traffic calming was introduced to entice more pedestrian movement and utilisation of the Quarter. High traffic volumes were reduced by the introduction of certain route closures to some of the narrow roads servicing the Quarter. This has resulted in low levels of access traffic servicing and accessing the buildings via further traffic calming measures which has the added benefit of improving pedestrian safety.

The Solution

The design of the hostile vehicle mitigation scheme was prepared by MFD International Limited based on pre-defined security objectives; i.e. to prevent unauthorised vehicular access into the loading bays to both Peterborough Court and Rivercourt buildings in addition to potential hostile attack to the perimeter walls of Rivercourt building by providing an enforced vehicular stand-off.

All approved crash-rated hostile vehicle mitigation products have been tested in accordance with the British Standards Institute (BSI) Publicly Available Specification PAS 68 entitled 'Specification for Vehicle Security Barriers'.



The originality and innovation of the security scheme came from the enhancement of the commonly used large City of London bollard. This is a non-crash-rated cast iron design used extensively throughout the City. The innovative solution developed by MFD came in the form of utilising BSI PAS68 compliant crash-rated street circular hollow section bollard cores, onto which a large City of London replica bollard sleeve was secured. The bollard appearance resembled those seen elsewhere in the City and hence crash-rated enhancement would not be apparent. Therefore, the City of London has the potential to install these enhanced bollards throughout the City either as part of other security schemes or as replacements for existing bollards.



In addition, the bollard core centre can be installed using a variety of bespoke site-specific architectural outer sleeves, whilst remaining in compliance with the original crash-rating performance and hence no further tests are needed.



The entire streetscape challenge necessitated effective planning and design to encompass the fundamental requirements, accessibility, safety, appearance and function of the Shoe Lane Quarter. To this end, the perimeter of Rivercourt was enhanced using a combination of both bollards and crash-rated planters in order to reduce any over-powering presence perceived as a forest of uninterrupted bollards. The raised planters offered an opportunity for suitable vegetation to be introduced into the street to complement the existing limited number of semi-mature trees, and significantly enhance the aesthetics of the area through implementations of the scheme.

To integrate both the design and implementation of the security enhancements as part of the City of London's established teams of architects and civil engineering contractors, an effective co-ordination of the entire scheme and procurement was achieved with partnership working between all parties.





The parties involved within the partnership and the roles in the scheme can be summarised as follows:

- City of London:
- Department of Planning & Highways – Street Scene Challenge
 - Civil Works Contractor – F M Conways
 - Architects - Burns and Nice

In partnership with

- Goldman Sachs - FM team
- MFD International Ltd - Security design engineering & construction monitoring
- Specialist Sub-Contractors
 - ATG – static & rising bollards, crash-rated gate
 - Furnitube – City of London bollard sleeves
 - Minster Stone – prefabricated raised planters.

Throughout the design process the team were cognisant to ensure that the security measures were commensurate and proportional.



As previously stated, the scheme was designed to ensure that, whilst acknowledging the limitations of the PAS compliant crash-rated product choice, the combination of well chosen and placed products, did not have a detrimental effect on both the safety and aesthetics of the scheme.

Where operational equipment such as the rising bollards and gates were installed, within pedestrianised section of Shoe Lane, to optimise public safety induction loops in the road were utilised giving pedestrians priority over vehicles attempting to access the sterile zone.

The architectural highway design included a combination of high quality granite paving and setts finishes to delineate to the road surface from the Yorkstone pedestrian areas enhancing the general feel and openness of the Shoe Lane Quarter. The security measures therefore are of complimentary quality and are deemed to be the most cost-effective solution to satisfy both the pre-defined security objectives and the aesthetics and function of the Quarter. Use of the City of London bollard





configuration with the enhanced core is a practical solution with low maintenance and hence a sustainable solution. The presence of the planters, whilst requiring seasonal maintenance, enhance the general environment and improve the aesthetics which are also sustainable.

Conclusions

The PAS68 and PAS69 standards define current best practice in terms of supply and installation of crash-rated products. Within the design of the scheme MFD has established for future bollard protection using the City of London sleeve with an enhanced core, which provides a cost-effective solution and can also be used to withstand similar threats throughout the City of London. Following on from the Shoe Lane initiative a number of other blue chip clients have either installed or are looking to install stand-off bollards, such as Deutsche Bank and NW Rothschild.

