CEN/TC 325
"Prevention of crime by urban planning and building design"

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Subject: **TC internal Enquiry on Draft prCEN/TR 14383-2 (WI 00325005)**
Prevention of crime – Urban planning and design – Part 2: Urban planning

Please find enclosed, the text of prCEN/TR 14383-2 "Crime prevention by urban planning and building design – Part 2: Urban planning" agreed by the members of CEN/TC325 WG2.
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Prevention of crime – Urban planning and design – Part 2: Urban planning

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Title: WI 00325005

prCEN/TR 14383-2

Prevention of crime – Urban planning and design – Part 2: Urban
planning

| Date of circulation: | **2006-07-11** | Closing date for enquiry: | **2006-09-30** | Reference number: | WI 00325005 |

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Prevention of crime — Urban planning and design — Part 2: Urban planning

Vorbeugende Kriminalitätsbekämpfung — Stadt und Gebäudeplanung — Teil 2: Stadtplannung

Prévention de la malveillance — Urbanisme et conception des bâtiments — Partie 2 : Urbanisme

ICS:

Descriptors:

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Foreword

The status of CEN Technical Report (CEN/TR) was proposed to give all countries the opportunity to compare experiences and to harmonise procedures.

This CEN Technical Report is one of a series for the "Prevention of crime by urban planning and building design", that consists of the following Parts:

— Part 1: *Terminology*

— Part 2: *Urban planning*

— Part 3: *Dwellings*

— Part 4: *Offices and Shops*

In the CEN Technical Report the Annexes A to D are informative.

Introduction

Preliminary declaration

This technical report is based on the principles contained in the following statement:

We should contribute to an interdependent urban development and not generate privilege yet isolated areas, which by way of consequence could become exclusion area. The buildings should be integrated in the city and urban fabric.

We should ban any approach that shall take into account the security of property of properties and not of persons, which tend to generate security to the profit of groups and not of the population as a whole.

Indeed, solutions based on the development of safer areas within and opposed to the outer world perceived as a source of insecurity will lead to exclusion and enclosure. Social life, respect for public freedom, Exchange and friendliness are not taken into account. These solutions most of the time involve discrimination through money and through investment and operation costs that are not accessible to everybody.

Crime and fear of crime as major problems

The European Urban Charter asserts the basic right for citizens of European towns to "a secure and safe town free, as far as possible, from crime, delinquency and aggression". This basic right to a safe community has been enshrined into many national and local crime reduction programs all over Europe.

The final declaration of an International Conference[1] organised by the Council of Europe's Congress of Local and Regional Authorities of Europe (CLRAE; Erfurt 26.-28. February1997) stated: "that crime, fear of crime and urban insecurity in Europe are major problems affecting the public and that finding satisfactory solutions for them is one of the main keys to civic peace and stability".

The first recommendation from this conference was that local and regional authorities in Europe develop integrated crime reduction action plans, with continuing public involvement, in which crime reduction is included as a policy in all aspects of the responsibilities of local authorities. Such a plan should define the nature and type of crime to be tackled, objectives, timetable, proposals for action and be based on a wide ranging up-to-date survey of statistics and diagnosis of crime.

In this respect the CLRAE conference in Erfurt also stressed the importance to promote collaboration between the police and professional designers and ensure that police officers are specially trained to advise on the relationship between crime and the built environment.

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[1] Crime and Urban insecurity: the role and responsibilities of local and regional authorities.

Crime prevention and fear reduction by urban planning and building design

The Justice and Home Affairs council of the European Union (meeting 15-03-2001) agreed politically on the conclusion of the EU experts Conference "Towards a knowledge-based strategy to prevent crime" (Sundsvall, Sweden, 21.-23. February 2001). This conference concluded that "Crime Prevention Through Environmental Design (CPTED), or Designing out Crime (DOC), has proven to be a useful, effective, very concrete and feasible strategy to prevent crime and feelings of insecurity, integrated in a multidisciplinary approach. Best practices regarding CPTED/DOC should be collected, evaluated and made accessible for stakeholders. This process should utilise a common framework of concepts and processes, and transferable principles should be identified".

This conference also underlined "as regards prevention of the fear of crime, that the fear of crime should be viewed and treated as a social problem in its own right".

Statements and recommendations about the collaboration between environmental design/planning specialists and crime experts are becoming more and more common nowadays in European countries. These statements and recommendations are based on assumptions regarding the inter-relationships between the physical environment and human behaviour. It is obvious that the results of urban planning and architecture do influence the choice of conduct and choice of routes of all people (young/old, woman/man, potencial offender/potential victim).

Hence urban planning also has an impact on crime and fear of crime by influencing the conduct and attitudes of e.g.:

— offenders;
— formal guardians such as police;
— informal guardians such as residents surveying an environment;
— potential victims (and/or targets) of crime or victims of fear of crime.

A great number of experiments have shown that particular types of crime can be reduced by modifying the opportunity for crime in the built environment. Moving the night-time tavern crowd away from vacant storefronts after closing time will inevitably reduce the number of burglaries and vandalism incidents to the stores. Controlling the access into, and natural sightlines through, underground parking areas will increase the opportunity for offenders to be seen and caught. This in turn will reduce the number of assaults and car crimes in those parking areas. The list of successful opportunity reduction examples goes on. In Canada andthe USA this has come to be known as "Crime Prevention Through Environmental Design" (CPTED, pronounced septed)[2].

In Europe the concept is also known as 'the reduction of crime and fear of crime by urban planning and architectural design'. In short, "Designing Out Crime"(DOC)[3].

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[2] The concept of CPTED is also used in the world wide association of researchers, specialists and practitioners in this field: the International CPTED Association (ICA; see: http://cpted.net/).
[3] See also the European Designing Out Crime Association: http://www.e-doca.net/ and the European Crime Prevention Network (Brussels): http://europa.eu.int/comm/justice_home/eucpn/home.html.

There are numerous examples of housing projects where bad design has contributed to the general decay and decline of urban areas. Badly designed housing estates have been rebuilt with thought and consideration to diminish criminal opportunity. In many cases after the refurbishment residents have wished to return to the estates where before they had left as they feared for their safety. New estates and housing projects are now incorporating good crime prevention features at the design stage.

Shopping centres are another building category that is benefiting from good planning ideas. The siting of the centre, car parks and transport infrastructure are all being incorporated at design stage to accommodate good design features. Supermarkets are also adopting designing out crime measures to reduce both internal theft as well as crime committed by customers.

Researchers have identified reductions in crime following, for example, the introduction of design changes in large municipal housing estates. There is also overwhelming evidence concerning fear and the built environment, e.g. pedestrian subways, lack of surveillance, and particularly the level of lighting and dark streets. Similar parallels can be drawn with regard to vandalism. When questioned, offenders (and victims) of burglary, car theft and rape/assault, have all mentioned environmental/design factors. The research findings show that the feelings of insecurity of victims are clearly related to the very same features of the place that attract offenders to commit a crime.

No wonder more and more local and regional authorities in Europe are now insisting on planning applications showing proof that the principles of crime prevention and fear reduction by urban planning and building design have been adopted.

Conclusion

The conclusion from the literature, research and project – or policy evaluations can be summarised as follows:

1) urban planning has an impact on the different types of crime and fear of crime by influencing the conduct, attitudes, choices and feelings of e.g. offenders, victims, residents, police;

2) crime can be subdivided in specific types (burglary, vandalism etc.);

3) crime and fear of crime are different phenomena;

4) fear of crime is an important issue but it has to be separated from a much broader set of feelings people have about the whole of their living space and about the degree to which they feel deprived of a good social and physical environment to live in;

5) a securer and safer city or neighbourhood is the result of a safety policy aiming at the physical and social environment;

6) policymakers and practitioners should never focus on planning and design only. Every newly built neighbourhood, public space or building needs good maintenance. Planning/design and maintenance are thus two sides of the same coin.

This CEN Technical Report combines 'contents' and 'process'.

♣ **Contents** refers to the question: which strategies and measures may[4] be implemented to prevent and reduce crime problems in a given environment.

♣ **Process** refers to the question: how to follow an effective and efficient procedure in which stakeholders shall choose the strategies and measures most effective and feasible to prevent and reduce the crime problems as defined by the stakeholders.

The process is described in clause 6 (for a summary see Figure 1). In step 3 of this

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[4] Note the word 'may' (and not shall or should) is used deliberately here because the actual choice for certain strategies and measures can only be made by the stakeholders, and in the end by a responsible body.

process the stakeholders choose strategies and measures. To help stakeholders make this choice they may use the strategies and measures as presented in clause 5 and Annex D.

Hence by adopting this CEN Technical Report the process described in clause 6 is adopted while the definitive choice of strategies and measures (see clause 5 and Annex D) is left to the stakeholders and in the end to a responsible body (most often local and regional authorities issuing rules for urban planning, building/planning codes and permits) involved in a concrete plan for building, reconstruction or the management of an area.

Before the contents (see clause 5) and process (see clause 6) are presented, a preliminary set of questions is elaborated upon in clause 4:

— the identification of the area **(where)**;

— the crime problem **(what)** and;

— the stakeholders **(who)**.

1 Scope

This CEN Technical Report gives guidelines on methods for assessing the risk of crime and/ or fear of crime and measures, procedures and processes aimed at reducing these risks.

Design guidelines are given for specific types of environments to prevent or counteract different crime problems (see 4.3). Furthermore, guidelines for a step by step process are presented to involve all stakeholders (see 4.4) engaged in urban planning and environmental crime reduction as well as all other stakeholders mainly local and regional authorities and residents in the multi-agency action needed to minimise the risks of crime and fear of crime.

This CEN Technical Report is applicable to the planning process of new, as well as existing, urban areas. An area can be the neighbourhood or environment ranging from just a few houses or streets to the whole city with a focus on public spaces.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14383-1, *Prevention of crime – Urban planning and building design – Part 1: Definitions of specific terms*.

CEN/TS 14383-3, *Prevention of crime – Urban planning and building design – Part 3: Dwellings*.

prCEN/TS 14383-4, *Prevention of crime – Urban planning and building design – Part 4: Offices and shops*.

3 Terms and definitions

For the purposes of this CEN Technical Report, the terms and definitions given in EN 14383-1 apply.

4 Preliminary questions: the area, its crime problems and the stakeholders

4.1 General

Cities all over the world are facing problems of insecurity and safety: urban violence and other forms of crime, feelings of insecurity caused by crime, graffiti and anti-social behaviour in the public sphere. These threats to the urban quality of life are obvious in most European cities.

Local and regional authorities generally react to these problems by more law enforcement input (police, private security services). However, now most European specialists agree that the actions needed to counteract the threats mentioned above have to be of an integrated and multi-disciplinary nature. Authorities and law enforcement specialists, as well as environmental specialists, city maintenance and management personnel, retailers and other business people, social workers, teachers and, last but not least, citizens are all stakeholders in this process.

The orchestration of the stakeholders, as well as the type of actions needed in the different urban environments (city centre, retail neighbourhoods, residential areas, transportation system), is a very difficult mix to plan and manage.

There are several models for the delivery of crime prevention by urban planning and design. These range from partnership schemes where a formal lead party is lacking, to police controlled schemes and others based in the local authority. Wherever urban planning and building design is involved there shall always be a democratically elected body governing the planning, building

or city/neighbourhood management process directly or indirectly. In clause 6 this body will be called 'the responsible body'.

This may be a local council, a group of planners mandated by local, regional or even national authorities or an interdisciplinary steering group. Although there may be a variety of stakeholders involved the approach is simple. It starts with answering three questions:

— **where**: the identification of the exact location of the area (by co-ordinates, and/or defining boundaries, and/or postal codes, etc.) and the type of area; this area is either an area comprising an existing urban fabric of buildings and streets/roads or a planned (new) area;

— **what**: the first and general identification of the crime problems occurring in this existing area, or the future crime problems that may occur in this new area, as well as the propensity of this area toward attracting crime and anti-social behaviour and generating fear of crime;

— **who**: the identification of the stakeholders involved in defining the crime problems more precisely, assessing or reviewing them in more depth and implementing/ executing the measures to prevent and/or reduce the crime problems.

4.2 Where: Identification of the area

4.2.1 Focus on urban environments

The key findings from the International Crime Victims Survey[5] show crime to be a serious urban problem:

For **more serious crime**, the strongest factor explaining risks across different countries was urbanisation with crime increasing with the proportion living in larger cities. Next, lower affluence was significantly associated with higher risks. Urbanisation and lower affluence alone explained half the variance in victimisation rates in the 26 countries.

With regard to **petty crime**, urbanisation was again the strongest factor explaining risks. Levels of affluence were statistically unrelated to risks however.

4.2.2 Level at which action can be taken

Within urbanised areas security and safety can be improved in existing as well as in new and future environments. As shown in Table 1, sixteen levels can be distinguished. Levels 1 to 4 are dealt with CEN/TS 14383-3 (dwellings) and prCEN/TS 14383-4 (offices and shops) while levels 5 to 16 are the subject of this Technical report.

This Technical Report is applicable to the planning process of new or existing urban areas. An area can be the neighbourhood or environment ranging from just a few houses or streets to the whole city. It will focus on recommendations aimed at reducing the risk of crime in public spaces.

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[5] The international Crime Victimization Survey (ICVS) is the most far-reaching programme of fully standardized simple surveys looking at householders' experience of crime in different countries. The first ICVS took place in 1989, the second in 1992, the third in 1996 and the fourth in 2000. Surveys have been carried out in over 50 countries since 1989, including a large number of city surveys in developing countries and countries in transition. The citations presented here are taken from the ICVS report `Criminal Victimization in Eleven industrialized Countries; Key findings from the 1996 ICVS; Pat Mayhew (Home office, United Kingdom), Jan J.M. van Dijk (Ministery of Justice/ University of Leiden, The Netherlands); WODC./Ministry of Justice The Hague 1997. The conclusions of the 2000 sweep of the ICVS are generally speaking the same: "Net of other effect, urbanisation continued to be an influencial risk factor. Risks of property crime, for instance, were 60 % higher in the most urban areas compared to the leas urbanised ones" (Key findings from the 2000 ICVS, John van Kesteren, Pat Mayhew and Paul Nieuwbeerta, WODC/Ministry of Justice, The Hague 2000 page 58).

Table 1 — Levels at which action can be taken to improve security in the built environment

			Level of intervention	Example of actions	The key players
Building design (CEN/TS 14383-3: Dwellings and 4: Offices and shops)	**Buildings**	**1**	Improving routine security precautions - but no physical change	Change routine activity, management procedures, patterns of use/occupancy; Security staffing	Occupants, management, security staff.
		2	Upgrading security equipment	Security equipment including: locking systems, alarms, cctv, lighting, access control, sensors	Management security staff; Security suppliers/consultants, locksmiths, builders
		3	Refurbishment and alterations to a building	Remodelling of interiors and minor extensions, replacing windows and doors, fencing and gates, etc.	Owners/occupants, facilities managers, developers, architects, engineers, builders
		4	Designing a new building	The design of the building and its relationship to its surroundings	Owners/futures occupants, developers, architects, builders
Urban planning (this prCEN/TR 14383-2)	**Public Spaces**	**5**	Improving routine security and no physical change	Patrolling, routes and schedules Cooperation of police and shop owners for surveillance; Improving maintenance; Special measures for construction yards	Police, shop keepers
		6	Upgrading security equipment	CCTV, Private and public street lighting; Lockings; Alarms	Police, owners, public service managers
		7	Refurbishment and upgrading details	Tree maintenance; Street furniture and fences and levels; Street and private lighting; Activity schedules	Local pressure groups, architects, police, maintenance dpt.; Service managers
		8	Re-design of layout	Continuity of pedestrian routes; Activity location and schedules; Shape and use of ground floor; Definition of public and private space; Show traffic flows	Municipality, local pressure groups, architects, police, maintenance dpt., service managers, traffic dpt., public space dpt

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			Level of intervention	Example of actions	The key players
Urban planning (this prCEN/TR 14383-2)	**Neighbourhood and other urban sectors**	**9**	Improving routine security and no physical change	Cooperation of police and local representatives for surveillance; Neighbourhood watch and patrolling; Community police; Special measures for construction yards	Police, local representatives (residents, shops etc)
		10	Upgrading security measures and equipment	Home safety measures; Street, parks and private lighting; Concierge and videophones; Centralise CCTV, alarms etc.	Police, local representatives, public service managers, private security
		11	Environmental improvement in terms of safety	Promoting activities on the street; Scheduling of activities; Parking lot design; Shape, fencing and layout of parks; Gradual/incremental redevelopment; Management and maintenance of public spaces	District Council, local pressure groups; police, architects and planners, traffic dpt., public transport authority, public service manager
		12	Designing a new development	Guarantee vision of public spaces from buildings; Promote identification of inhabitants with the area; Clear definition of private/public space; Activities at ground level; Concierge; Continuity of pedestrian routes; Location and design of parking lots; avoid underground parking; consider management and maintenance in the design phase	Municipality, District Council, local pressure groups police, architects and planners, traffic department., public transport authority, public service managers

Urban planning (this prCEN/TR 14383-2)	Land use and infrastructure	13	Upgrading existing urban structure	Promote mixed use; Safeguard continuity of urban grid; Respect character of places; Avoid dead/empty areas;Secure parking lots; Schedules of activities	Municipality, District Council, local pressure groups police, architects and planners, traffic dpt., public transport authority public service managers
		14	Upgrading existing infrastructure	Improve public transport routes and stops; limit traffic speed and volumes; location and layout of parking lots	Municipality, District Council, local pressure groups police, architects and planners, traffic dpt., public transport authority public service managers
		15	Planning new developments	Control building density; Introduce mixed use; Continuity of urban texture, built form and building types; Provide continuity of street pattern, pedestrian and bicycles routes, Control shape and location of parks and schools; Develop ground floor activities	Municipality, District Council, local pressure groups police, architects and planners, traffic dpt., public transport authority public service managers real estate developers
		16	Planning new infrastructure	Avoid barriers and enclaves; Guarantee accessibility; Maintain continuity of pedestrian movements; Create capillary public transport system	Municipality, District Council, local pressure groups police, architects and planners, traffic dpt., public transport authority, public service managers

4.2.3 Type of area

This CEN Technical Report is focused on different scales (see Table 1):

— public spaces, defined as areas with free access to public use;

— neighbourhoods and other urban sectors;

— land use and infrastructure planning.

This document can be applied to all spaces with public use (streets, squares, parks and public gardens etc.) and to residential areas, city centres, commercial/industrial or offices areas, shopping/retail areas as well as mixed-use areas. Specific areas such as schools, leisure centres, public transport and parking facilities, stations, bus stops, parking garages have to comply with existing specific regulation as well as the provision of this document.

It is important to classify the area under consideration as either a new or existing area. In the case of a new area only a plan exists. The consequences of these differences are far reaching:

— new environment (= new project): characteristics of crime and fear of crime can only be assessed by using theories or by using experiences and lessons from other neighbourhoods/projects closely resembling the plan for this new environment; such a crime analysis (ex ante) shall be called: a crime assessment (an estimate in advance (ex ante) of the problems which are likely to appear in future in a well defined area after a plan has been built;

— existing environments: characteristics of crime and fear of crime can be analysed in real situations by way of e.g. registered crime figures, surveys, safety audits, recording experiences and opinions of residents, people visiting/using the area, professionals (police officers, shopkeepers etc.), observations, interviews with victims and/or offenders, etc.: such a crime analysis (ex post) in an existing area shall be called a crime review (an estimate (ex post) of the crime problems present in a well defined existing (urban) area/-neighbourhood).

Table 2 — New/Existing environments

New environment	Existing environment
Only plan exists	People, buildings, streets, etc., all there
Plan for new environment	Plan for changes, infill, etc.
Instrument: **Crime Assessment (see Annex A)**	**Instrument:** **Crime Review (see Annex B)**

4.3 What: Problem identification

Having identified the area the next question is: what are the crime problems in this area (crime review) or what crime problems may in future arise in this proposed new area (crime assessment) ?

The problems that have to be taken into account can be quite different, ranging from fear of crime, antisocial behaviour, to major crimes. The diagnosis (based on physical and socioeconomic information and crime data) will identify those risks. Annexes A and B provide guidance for carrying out the crime review or the crime assessment by specifying the information that can be used to evaluate the risks.

This Technical Report provides urban planners with guidelines aimed at reducing insecurity and preventing crime in a defined area. Some factors that influence insecurity are not linked to the local environment, but depend on broader conditions; they will not be solved by improving the urban environment, and are therefore beyond the scope of this Report.

The various types of crime and insecurity problems may be subdivided in three categories:
— serious or notifiable offences and non-notifiable offences. They are recorded by police forces;
— antisocial behaviour and minor conflicts; they may or may not be reported, or recorded by public agencies;
— the fear of crime and feeling of unease in the environment which are linked to the characteristics of the area.

In addition to crime, antisocial behaviour and fear of crime, problem identification should investigate also the propensity of a place toward attracting crime or generating fear of crime.

Identifying and classifying the problems which affect an existing area or that may arise in a new area are a basic step into selecting the proper strategies and measures of planning and design to prevent crime.

Insecurity is difficult to estimate and it is often necessary to use all types of information and surveys that exist to identify the factors affecting insecurity and their specific location.

This diagnosis will help urban planners in understanding the broad spectrum of security stakes (ranging from real risk and feeling unease) and in relating these stakes to the planning, design and management aspect of the project.

4.3.1 Serious or notifiable offences and non-notifiable offences

Some of the terms given below are defined in EN 14383-1. The following list gives only examples for different kinds of offences.

Burglary includes theft from gardens and trespassing without breaking and entering and can occur on residential, commercial areas, cars.

Street violence relates to assault and robbery (threats of violence or violence against a person), fighting and assault (urban violence as gang fight, car "racing", joy "riding", car jacking, etc.), sexual violence or indecent acts and assault.

Car crime relates to theft of/from vehicles, arson, including motorcycles and mopeds.

Theft relates to shop lifting, pick-pocketing; any theft without the use of violence.

Criminal damage/serious vandalism relates to destruction and degradation of equipment or material, damage to public or private properties, such serious graffitis.

Arson occurs on public properties and goods (on city appliances as garbage containers, public building like school) or private properties and goods (on letter boxes, private building like underground parkings).

4.3.2 Antisocial behaviour and minor conflicts

Antisocial behaviour and minor conflicts relates to:
— minor vandalism such as broken windows, destruction on a bus stop, graffitis;
— disturbances, antisocial behaviour with no penal qualification such as neighbour quarrels, gang's
— gathering with aggressive attitudes, noise pollution, illegitimate uses according to the rules of the place;
— littering, garbage or refuse left outside, urinating, dirt on private or public properties;
— conflicts between activities, that potentially lead to illegitimate appropriation (young people over elderly

— users) or to risks of accidents (conflicts between pedestrians and bikers or pedestrians and vehicles
— leading to risks of accidents).

4.3.3 Fear of crime and feeling unease in the living environment (see Annex C)

Fear of crime refers to the fear of personally becoming a victim of particular types of crime.

Concern about crime and the degree of fear vary depending on the person (bad feeling when walking alone at night in the neighbourhood, scared to use public transport).

It can also be generated by factors that create a climate of tension or discomfort in the use of the place, Duch as specific factors like prostitution or drug abuse, vandalism, bad maintenance or problematic urban design that creates isolation, lack of surveillance, orientation and alternative routes, and even risks of accidents between users (pedestrians, bikers, vehicles).

Fear of crime is an emotional reaction, which is difficult to measure. Partly it is due to general factors (media reports on crime, violence in movies, anxiety due to economic conditions) which are not linked to the local environment but depend on broader conditions. Urban planning and design cannot directly affect this type of fear, although an environment which does not generate anxiety can contribute positively to reduce fear.

The reduction of fear and crime prevention are different (e.g. cycles, time spans etc.) and require ad hoc strategies and measures. Both should be taken into account.

4.3.4 Propensity of a place toward attracting crime and antisocial behaviour and generating fear of crime

Many studies have shown that there is a strong correlation between criminal acts and antisocial behaviour and the specific features of the built environment. Fear of crime and feeling insecure or uneasy are also strongly related to the character of the environment. In order to study this relationship it is necessary to identify, measure, analyse and evaluate the specific factors of the physical environment that allow this correlation to take place.

The main factors of the physical environment to be taken into account are:
— general character of the area and land uses;
— built form and density;
— characteristics of open spaces and green areas;
— relationship between public, semi-public, private and semi-private spaces;
— street frontage and building entrances;
— public transport routes and stops;
— traffic flows and parking;
— pedestrian and bicycle movements;
— ground floor activities and their time schedules;
— prevailing activities in the upper floors;
— public and private lighting in public spaces;
— presence of urban decay or derelict land;
— level of maintenance and care.

Annex D further specifies these factors.

The propensity of a place toward crime and antisocial behaviour must be evaluated for both night time and daytime.

In addition to the environmental factors outlined above, there are some specific facts related to demography, social or ethnic networks, location patterns that can contribute to crime and antisocial behaviour and fear of crime. Examples are: areas of high concentration of poor population or ethnic conflicts, the presence of temporary population camps, of illegally occupied buildings, of homeless sleeping in abandoned cars, as well as the lack of facilities for youth, the lack of support services for drug addicts, the lack of services in general.

These should be specifically analysed as they contribute strongly to the propensity of a an area toward crime or generate fear of crime.

An analysis of the propensity of an area toward crime is necessary to identify which aspects of the crime problem are specifically related to the environment. In carrying out crime assessment for new environments or crime review of existing environments, one should analyse both the crime patterns and the propensity of the area to attract crime as shown in Annexes A and B (which incorporate most of the listed factors).

4.4 Who: Stakeholders

The prevention and reduction of crime and fear of crime in new and existing areas by urban planning and building design, inevitably involve many stakeholders.

Urban management is a complex with multi-dimensional interactive components and requires working in partnership during the whole process. The aim is to look at security as well as providing social and urban quality of the urban fabric.

Three types of stakeholders can be identified:
— owners and contracting authorities;
— specialists who bring their expertise to the project;
— residents and users.

4.4.1 Owners and contracting authorities ("the Client")

The main partners who are involved in the decision process are:
— the decision-maker who is the owner (local, municipal, regional politicians ; housing association; private or public developers);
— associated partners in the decision-making process: operators (public transport) and financiers (local council, governmental agencies).

4.4.2 Specialists who bring their expertise to the project

The main practitioners who can contribute in the planning process are:
— designers and planners: town planners, architects, landscape architect, transport/traffic engineer, civilengineer;
— police and security professionals: crime prevention officers, victim support officers, private security firms and consultants, insurance companies;
— social workers: social assistants, conflict mediators, assistants to marginal groups, assistants to drug addicts;
— sociologists, psychologists, research consultants.

Their role is purely the provision of services. When the project is carried out, there can also be the Project managers or contractors that are employed by the project owner.

4.4.3 Residents and users

Careful consideration has to be given to the dialogue with partners whose advice is sought as they constitute the final users of the operation.

The main population (individual and/or organisation) who may be associated in the planning process includes:

— people who live on the site (residents);

— people who work on the site (shopkeepers and local business managers, local companies or services for the delivery of goods like lighting, transport, waste management and cleaning, maintenance of different types of public space (parks, streets, parking) shop-employees, social workers, medical practitioners, school managers, teachers, professionals who work in the area of the project and with the local population);

— other users: other people who use the space or the area of the project without being inhabitant or resident.

4.5 To summarize: identification of 'where', 'what' and 'who'

Crime and fear of crime can be reduced by urban planning and building design in new and existing areas. For this approach to be effective, a targeted approach is necessary in which three preliminary questions are dealt with before it is decided which measures are taken and by which stakeholder(s). These questions are:

— where: identification of the area;

— what: identification of the crime problem in general and the propensity of the area toward crime;

— who: identification of the stakeholders.

After these three questions are answered one may start to reach a decision on:

— what action might be possible, necessary and feasible;

— how this action will be implemented and executed.

Information regarding the first question is presented in clause 5 (design guidelines). In clause 6 (process) a step by step method is presented to help and support an effective and efficient process of implementation, execution and evaluation.

5 Urban Planning and Design Guidelines

5.1 Introduction

Once the crime problems have been identified (clause 4.3) for a defined area (clause 4.2) through crime review or crime assessment (Annexes A and B) the aims and goals of the prevention activity should be defined. After fixing the goals, appropriate strategies should be selected in order to reach them.

Clause 5.2 lists the main strategies for urban planning, urban design and urban management that can be used to support decision makers, professionals and other stakeholders in understanding and selecting the main streams of action.

Strategies, in order to be implemented, need to be translated into a set of coordinated actions and measures.

These actions and measures depend though on local context, cultural tradition and past experience and tus may vary considerably from place to place. As actions and measures cannot be generalised (in order to respect local practices), they are not defined in this

Technical Report, leaving their definition case by case to the local working group dealing with the crime prevention project.

Guidance for the application of these strategies is provided through Annexe D, which contains a check-list of questions relevant to the aspects to be examined. These questions are organised in accordance to the strategies listed in 5.2 and can be very useful for checking whether the actions and measures of a project are coherent with the identified strategies.

Actions and measures – though differences due to cultural background and local situations – must comply with basic principles of crime prevention, which are shared by the international scientific community and have been tested through longstanding (consolidated) practice. A brief summary of these principles is included in Annexe D.

5.2 Strategies

5.2.1 General

Urban planning and design is a general concept, which includes not only the actual design work as it is done by architects and urban designers, but also the planning work before the design and the management work after the design is implemented.

In this CEN Technical Report three types of strategies are identified:

— urban planning strategies;

— urban design strategies;

— management strategies.

Urban planning and design strategies are most relevant for proposed new areas and neighbourhoods.

Management strategies are more relevant in existing areas. Planning and design adaptations are relevant in existing areas to a certain degree, but the feasible adaptations are modest and small in existing areas compared to the designs for new areas.

5.2.2 Urban planning strategies

Planning strategies relevant to crime prevention include:

— taking into account existing social and physical structures;

— guaranteeing accessibility and avoiding enclaves;

— creating vitality (blending functions and activities, attractive layout);

— providing mixed status (blending socio-economic groups, avoiding isolation and segregation);

— creating adequate urban density to allow vitality and natural surveillance;

— avoiding physical barriers (due to infrastructures etc.) and waste land.

These strategies aim at choosing the scale, function and blending of functions in such a way, that they are an incentive for liveliness, social control, involvement and sense of ownership. Implementation of these strategies prevents the existing "urban fabric" (i.e. the vulnerable structure of streets, functions and social networks) from being harmed. In the case of new developments, these strategies create the conditions for the formation of social networks and for making the new development becoming part of the surrounding urban fabric as soon as possible. Planning strategies can prevent large building complexes (which may be safe and secure inside) functioning as isolated urban fabrics. This can be achieved by avoiding the physical isolation of these complexes from their surroundings by not allowing the presence of isolated large car parks or no-mans-land around them.

The development of shopping areas can be taken as an example here. The planning strategies encourage the concept of well integrated, open air shopping areas rather than creating a shopping mall as an isolated development.

5.2.3 Urban design strategies

Urban design strategies for crime prevention include:
- layout (continuity of urban fabric and pedestrian/bicycle routes);
- specific location of activities;
- time schedules coordination to guarantee continuous natural surveillance;
- visibility (overview, sight lines between e.g. dwellings and public space, lighting, etc.);
- accessibility (orientation, space to move, alternatives routes, limiting access for no authorised people);
- territoriality (human scale, clear public/private zones, compartmentalisation);
- attractiveness (colour, material, lighting, noise, smell, street furniture);
- robustness (materials e.g. street furniture, fences).

These strategies aim at creating the conditions for social control, natural surveillance, sense of ownership, feeling of belonging. The design strategies are complementary to the planning strategies.

5.2.4 Management strategies

Management strategies to prevent crime include:
- target hardening/removal;
- maintenance;
- surveillance (patrolling, camera monitoring);
- rules (for conduct of the public in public spaces);
- providing infrastructures for particular groups;
- communication (of preventive messages and rules of conduct for the public).

Practically no urban area is completely self-regulating; most urban areas need a certain level of professional surveillance and maintenance.

These professionals can implement the management strategies. These strategies aim at supporting and encouraging the natural surveillance and sense of ownership by residents and visitors. They do not aim to take this task away from residents. The management strategies assume a certain level of self-regulation, which can be lifted to a higher level with help from professionals.

The management strategies are especially important when the task is to solve crime problems in existing areas. In such cases, the possibilities to implement planning and design strategies may be limited.

Management strategies are needed to create a complete and effective set of measures.

5.3 How to choose the measures

Strategies, in order to be implemented, need to be translated into a set of coordinated actions and measures.

These actions and measures depend though on local context, cultural tradition and past experience and tus may vary considerably from place to place.

Not all measures are effective in all environments and in all circumstances. Some measures are more effective in specific environments and/or to prevent specific types of crime. For this reason, the measures shall be chosen according to their expected effectiveness in certain types of environments and against the prevailing types of crime.

Possible conflicts with other goals (apart from crime prevention) shall be considered to make a balanced set of strategies. Crime prevention is a part of the whole of a planning and design process and cannot be considered in isolation.

6 Process to prevent and reduce crime and fear of crime by urban planning and management

6.1 General

While the preceding clause focussed on the question of which strategies and measures may be used in a local situation, this clause will focus on guidelines to implement a step-by-step process involving all relevant stakeholders and not forgetting essential pre-action steps such as a thorough crime analysis (crime review or crime assessment), establishing objectives, etc. This clause therefore offers a framework for the stakeholders involved in the process to develop a strategy following clear decision steps and taking into account the responsibilities of all stakeholders involved. Such an approach is often referred to as an integrated multiagency approach. The approach is based on ISO 9001:2000.

Three broad categories of stakeholders are distinguished (see 4.4):

— owners and contracting authorities;
— specialists who bring their expertise to the project;
— residents and users.

These stakeholders, or at least some of them, will initiate or be part of a regular planning/management process resulting in the building of a new area or rebuilding, refurbishment or maintenance of an existing area.

This regular planning/management process is already firmly established and has not been, nor will be in the future, subject to this CEN Technical Report. The only extra and new feature resulting from the adoption of this CEN Technical Report will be the incorporation of security and safety measures to prevent and reduce crime and fear of crime, and which are considered feasible by stakeholders, in the regular planning/management process.

6.2 Responsible Body, mission statement, Working Group

6.2.1 General

Authorities responsible for granting permission for developments in new and/or existing environments are referred to here as a Responsible Body (RB). In rare cases local or regional authorities may prefer to delegate their planning permission responsibilities to another group of people, institute or corporation, in which case the delegated group, institute or corporation will be the Responsible Body.

6.2.1.1 Policy Commitment

The Responsible Body should provide evidence of its commitment to the prevention/reduction of crime and fear of crime by urban planning and building design by:

a) communicating and disseminating the importance of meeting safety and security requirements;

b) establishing a safety and security policy;

c) conducting crime reviews in existing environments and crime assessments in proposed new

d) environments;

e) ensuring that general safety and security objectives, related to the relevant rules if they are established;

f) defining the areas which are subjected to the procedure of this document;

g) providing a technical support for safety and security policy;

h) ensuring the availability of resources.

It is advisable that a technical structure be set up to support crime prevention policy.

6.2.1.2 Process for each single project

In the case of a development or building project for a new environment, or a project for rebuilding, refurbishing and/or maintaining an existing environment, the Responsible Body should start a process – as defined below and summarised in Figure 1 – aimed at meeting the safety and security objectives as formulated by the Responsible Body.

The Responsible Body should appoint a person from its midst who, irrespective of other responsibilities, shall have responsibility for and authority over:

a) ensuring that the necessary steps in the process (see Figure 1) are established, implemented and maintained;

b) reporting on the process to other members of the Responsible Body.

The Responsible Body is required to check (with the aid of the technical support) how far the three preliminary questions mentioned in clause 4 have already been answered:

— the exact identification of the area under consideration (where);

— the general identification of the crime problems which may, will or seem to take place in this area (what);

— the identification of the key stakeholders (who); key stakeholders may include members of the stakeholder groups mentioned above (see 6.1 or 4.4); this list is not exhaustive.

6.2.2 Mission statement

The appointed representative of the Responsible Body (RB) should initiate the process aimed at preventing/reducing crime and fear of crime in a new or existing environment by issuing a mission statement (also called "terms of reference") that includes the following:

— the main objectives to be pursued for the future security and safety situation within the defined environment (with reference to point 5 and Annexe D);

— the composition of the Working Group;

— the phases of design and implementation which require audits to be carried out.

The Mission statement should also comprise general guidance on the organisation of the process e.g. deadlines for each of the identified steps, documentation requirements, resources, technical assistance, and relevant laws/regulations.

6.2.3 Working Group

In accordance with the Mission statement a multi-disciplinary Working Group (WG) should be set up (if not yet in operation for other purposes) with the necessary professional skills (designers, safety experts, social workers, police, etc.) as well as the representatives of

the stakeholder organisations involved in this particular project. (see point 4.4).

This Working Group shall develop, and later on implement and execute the mission statement (also called "terms of reference") defined by the Responsible Body (RB). Its general tasks are:

— establish a mission programme;

— identify and study the crime and safety problems in the specific area;

— give guidelines for the designers and developers (public or private), in order to meet the misión tatement (also called "terms of reference");

— transmit to the Responsible Body an evaluation on how the objectives are met and how the project is proceeding;

— implement and execute the mission statement (also called "terms of reference") defined by the Responsible Body (RB).

Two operational approaches for the functioning of the Working Group are possible.

a) The integrated approach

b) The Working Group of a regular planning process for new or existing area should be expanded with some experts specialised in safety, security, crime prevention/reduction : police officers, security risk professionals, social workers or some residents.

c) The specialised approach

d) A separate Working Group specialised in the prevention/reduction of crime and fear of crime by urban planning, design and maintenance shall be set up to advise (and influence) the planners/designers, developers/builders and/or services.

6.2.4 Document identifying the Working Group programme

The Working Group required to advise on a project/environment should describe and define the following in a planning document:

a) the safety and security objectives; these objectives should be "quantifiable and consistent with the safety and security policy issued by the Responsible Body;

b) steps to be taken in the process, including planning and organisation (who does what and when);

c) responsibilities and authorities of all participants involved;

d) the documentation, including the relevant records needed to establish, implement, maintain and audit the steps in the process;

e) the proposed consultation agenda.

The Working Group's planning document should be discussed with and agreed upon by the Responsible Body which issued the Mission statement (see 6.2.2).

The Responsible Body, as well as the Working Group, should keep records of all decisions, hearings, reports and consultations which are or have been the basis for (future) decisions.

6.2.5 Consultation mechanisms

The Working Group should consult on the issue of crime and the perception of crime with stakeholders who are unable to participate in the Working Group.

The Responsible Body as well as the Working Group should establish consultation mechanisms promoting close liaison, the exchange of information, joint work and the design of a coherent strategy with all stakeholders involved.

6.3 Steps to be taken

6.3.1 Step 1: Crime review or crime assessment

The Working Group should review the present or assess the future crime preventing and fear reducing performance of the environment specified in the mission statement. The methods to be used for analysis in an existing environment and a new environment are different. A receptiveness to the introduction or use of new methodologies is recommended in both cases (e.g. crime mapping, victim surveys, offender interviews, audits, etc.).

The review/assessment shall include:

- a) definition of nature, type, and seriousness of crime problems to be tackled (existing environment) or prevented (new environment). The crime problems to be considered are summarised in 4.3. Annexes A, B and C provide guidance for these reviews;
- b) definition of factors of the physical environment, the built form and the design features that may directly or indirectly contribute to crime problems mentioned above (see 4.3.4).

The outcome of the review assessment shall be discussed with the Responsible Body (RB).

6.3.2 Step 2: Objectives/requirements

The Working Group, on the basis of the findings of step 1 should define the specific objectives of the Project in accordance with the mission statement. These objectives should be listed in the form of a concrete set of safety and security requirements, and include the time by which these requirements should be attained.

6.3.3 Step 3: Plan of the working group

The Working Group should draft a plan containing the following:

- a) a scenario of what is most likely to happen in the near future if no measures are taken to prevent and reduce crime and/or fear of crime (thus extrapolating the crime review or assessment mentioned in step 1). This will include a comparison of the outcome of the scenario with the safety and security requirements as specified in step 2;
- b) the most effective strategies, likely to reach the safety and security requirements specified in step 2 and the measures to be taken In the case of a large or complex project, a strong interaction between the designers and the Working Group is desirable in order to obtain a consensus before going further with the process;
- c) the costs involved;
- d) the anticipated effects of the proposed measures;
- e) non-conformities that may be left and the potential hazards and risks resulting from this non-fulfilment of one or more requirements.

The Working Group should present the plan to the Responsible Body and to all stakeholders.

6.3.4 Step 4: Decision by Responsible Body

The Responsible Body should decide:

- — which strategies and measures have to be implemented;
- — or which aspects of the plan have to be elaborated further by the Working Group; in this case the Working group and/or the project proponents has to carry out additional work and the Responsible Body shall present an adapted version of the objectives and requirements, so the process will have a loop starting at step 2.

Once a final decision on the strategies/measures has been made, these strategies/measures shall be laid down in a final agreement between all stakeholders. This agreement should identify:

— who does what (responsibility of each party involved);

— time schedule;

— intermediate controls of the planned actions.

6.3.5 Step 5: Implementation and control

The measures described in the final agreement (see step 4) should be implemented.

Each party involved in this agreement is responsible for the implementation of its respective actions and shall keep the others informed on the progress.

Each implementation phase should be subject to control. These controls should determine whether the safety and security requirements specified in step 2 are met.

The responsible body will define the way in which the control is carried out.

6.3.6 Step 6: Evaluation

The performance of the measures implemented in step 5 should be evaluated in respect to their safety and security effects.

An evaluation programme should be planned, taking into consideration the status and importance of the processes and areas to be evaluated, as well as the results of previous studies. The evaluation criteria, scope, frequency and methods should be defined. Selection of evaluating experts and conduct of evaluations shall ensure objectivity and impartiality of the evaluation process. Experts should not evaluate their own work.

In the event of crime problems exceeding the specific requirements in a new environment, or remaining at unacceptable levels in an existing environment (reference points are again the objectives/requirements specified earlier in step 2), the Responsible Body should decide upon corrective action, to eliminate the cause of non conformities in order to prevent recurrence; e.g. take additional crime preventive measures or go on with (further) refurbishment of the area.

The responsibilities and requirements for planning and conducting evaluation, and for reporting results and maintaining records should be defined in a documented procedure.

6.4 Flow chart

The procedure outlined in this sub-clause is summarised in Figure 1:

```
                          ┌─────────────────────────────────────────────────────────────┐
                          │  RB shall provide **evidence of its commitment** to the         │
                          │  prevention/reduction of crime and fear of crime by urban       │
                          │  planning and building design.                                  │
                          │  RB shall **check if preliminary questions are already answered**: │
                          │          exact identification of area (where);                  │
                          │       general identification of possible crime problems (what); │
                          │        identification of the most important stakeholders (who). │
                          └─────────────────────────────────────────────────────────────┘

                          ┌─────────────────────────────────────────────────────────────┐
                          │  RB formulate a mission statement including:                    │
                          │  the main objective for the future security and safety within   │
                          │  the defined environment;                                       │
                          │  the composition of the Working Group and the procedure for     │
                          │  defining the coordinator;                                      │
                          │  the phases of design and implementation which require audits   │
                          │  to be carried out                                              │
                          └─────────────────────────────────────────────────────────────┘
```

RB shall provide **evidence of its commitment** to the prevention/reduction of crime and fear of crime by urban planning and building design.
RB shall **check if preliminary questions are already answered**:
exact identification of area (where);
general identification of possible crime problems (what);
identification of the most important stakeholders (who).

RB formulate a mission statement including:
the main objective for the future security and safety within the defined environment;
the composition of the Working Group and the procedure for defining the coordinator;
the phases of design and implementation which require audits to be carried out

Working Group (WG) → Consultation Mechanism for Stakeholders not in the Working Group

WG Planning Document

Step 1 – Crime Review or Crime Assessment
Definition of crime problems to be tackled (existing environment) or prevented (new environment)
→ 4.3 + Annexes A, B, C (Guidance)
Definition of factors of the physical environment that may cause or Contribute to crime problems
→ 4.3.4

Outcomes to RB

Step 2 – Objective/Requirements:
Defined objectives should be listed in the form of a concrete set of safety and security requirements

Step 3 – Plan or amendments of proposed projects that includes:
scenario of the future situation if no measure is taken;
most effective strategies;
costs;
anticipated effects of the proposed measures;
risks of non-fulfilment

Plan presented to RB and Stakeholders

Step 4 – Decision by Responsible Body → Contract with Stakeholders

Step 5 – Action and implementation

Step 6 - Audit

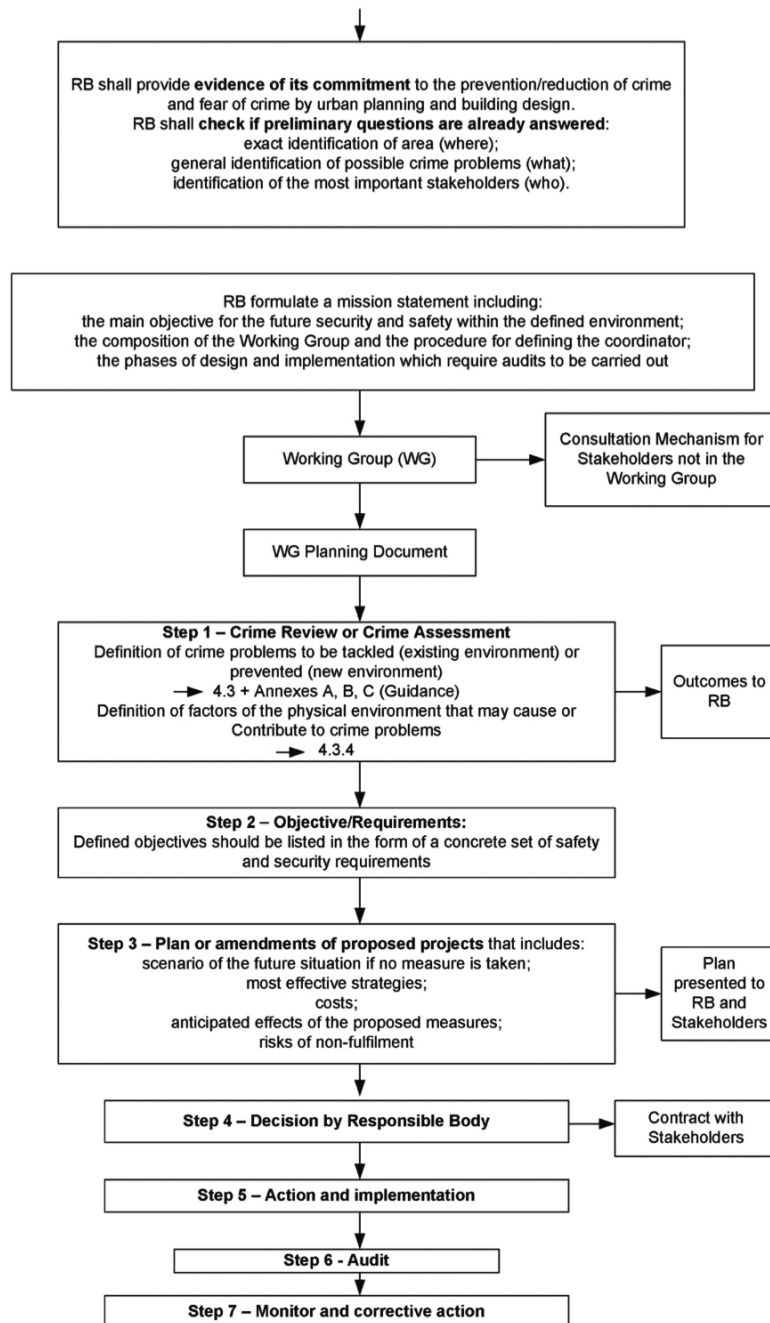**Step 7 – Monitor and corrective action**

Figure 1 — Summary of process

Annex A
(informative)

Crime Assessment – Examples of elements to take into account

A.1 Introduction

This annex contains a list of examples of factors that explains the risk of crime problems taking place. In clause A.3 the risk factors for crime as well as fear of crime are presented. But first in clause A.2, the specific risk factors from clause A.3 are summarised under three general headings.

A.2 Risk assessment: three general aspects

a) Aspects relating to offenders
   — The presence and number or concentration of offenders.
   — The physical and psychological accessibility and possibilities for offenders to escape.
b) Aspects relating to guardians (formal: police; informal: residents)
   — The presence and number of guardians able to exercise surveillance and control.
   — The physical possibility for guardians to see what is happening: visibility (factors like lighting, layout, sight lines, use of CCTV).
   — The physical and social/psychological ability and willingness of guardians to react.
   — Reaction time of the guardians.
c) Aspects relating to victims/targets
   — The ability of victims to react (lighting, surveillance, orientation).
   — Possibilities to escape for potential victims.
   — Attractiveness of a target.
   — The physical vulnerability of a target.

A.3 Specific risk assessment factors for six types of crime and for fear of crime

Burglary (including theft of objects from gardens and trespassing without breaking and entering).
Factors that influence burglary:
   — presence of CCTV;
   — risk of detection (technical or by people);

- physical resistance time of doors and windows to burglary attempts (see EN 1627 and CEN/TS 14383-3 and prCEN/TS 14383-4);
- rich targets;
- presence and number of offenders;
- rear access;
- accessibility of an area, e.g. distance to motorways, rail/ underground stations, large public buildings/places/functions, the number of entrances to a neighbourhood and physical or psychological barriers;
- layout of roads and footpaths; (escape routes for burglars and their chances of being seen);
- cul-de-sac through grid;
- number of pedestrians, cars and other forms of transportation through the neighbourhood;
- mono functional areas (deserted at night/weekend); better to mix functions, e.g. housing/shops;
- lighting (burglary risk higher when dark);
- landscaping (sight lines, surveillance, cover/hiding places);
- territoriality/ownership;
- theft from small storage areas/sheds/lofts/cellars etc.;
- street activities.

Vandalism

Factors that influence vandalism:
- maintenance (quick repair after attack, painting over after graffiti);
- surveillance;
- divert interest (by providing children with alternative sources of entertainment or challenges , such as
- climbing walls);
- presence and number or concentration of young people (< 18) especially males in an area;
- design material/strong; physical resistance time of objects against vandalism attack;
- aesthetics;
- visibility;

Street violence

Factors that influence assault/robbery:
- vulnerable groups (fear) e.g. tourists, elderly;
- rewarding/risk targets especially on vulnerable locations, e.g. all-night shops, petrol stations,
- elevator/staircase in block of flats;
- public transport (stops), especially at night and areas around public transport stations;
- special situations (carnival, fair).

Factors that influence fighting/assaults:
- pubs, discos;

- recreation facilities, football grounds, etc.;
- drug dealing;
- crowded areas (more than 4 people per square metre can lead to unpleasant feelings).

Factors that influence sexual or indecent assaults:
- hidden/isolated spots;
- public transport;
- poor lighting;
- pubs, discos (including the journey home).

Car crime (theft of/from car, vandalism/arson of car)

Factors that influence car crime:
- fencing;
- formal surveillance, e.g. C.C.T.V. attendant;
- vulnerable areas like long term car parks (e.g. airport), pay and display, hidden areas/poor
- visibility/lighting; ownership of parking zones;
- large car parking areas;
- deprived neighbourhoods (arson of car/joy-riding);
- large built garages;
- car type/attractive target (see annual national hitparade issued by police);
- intention, e.g. for profit, for fun (joy-riding), for other criminal purposes.

Theft

Factors influencing theft:
- crowds e.g. markets, streets, public transport;
- unattended possessions, e.g. bags, coats, clothes;
- left luggage/lockers;
- school/university/public transport/large housing (bike theft).

Arson

Factors influencing arson:
- material dividing building compartments (fire resistant yes/no);
- early warning: smoke detector, alarm, CCTV;
- waste/garbage containers/storage areas;
- schools – pavilions;
- bike sheds;
- letter box in building;
- children playing with fire/no control or surveillance;
- arson to hide traces of burglary (see burglary).

Fear of crime
- drug abuse (use of drugs, drug dealing);
- fear generating functions like zone for prostitution, drug abuse or certain types of entertainment;

- bad maintenance;
- problematic urban design;
- lack of surveillance/ isolation -lack of visibility by others;
- lack of orientation and alternative routes;
- poor lighting/dark areas;
- reputation of the area;
- knowledge of crime in the area, perceived crime level of the area.

Annex B

(informative)

Crime review - Problem identification in an existing area

The aim of the crime review is to make a brief and compact report on an area/ neighbourhood and the crime within that area. The following considerations are important when conducting a crime review:

— physical variables versus social-economical and demographic variables;
— objective variables (figures/numbers) versus subjective variables (opinions, fears/hopes).

The report contains:

1) Physical information:

Location, boundaries, number of m2 (total as well as for different functions like dwellings, schools, offices, shops, industry/factories parks/green/water, transport/public space), distance to city centre, lighting, visibility, characteristics of building envelope protection; placement of entrances, layout of street and path network.

2) Socio-economic and demographic information:

— who lives in the area ? Age distribution (many young people, many old people, etc.), affluence/income
— (poverty, education, etc.), family composition (single household, etc.), profession/class;
— ownership (of dwellings/buildings/land);
— who works in the area (women working evening, etc.) ?
— who uses the area, travels through ?
— are there specific conditions (drug addicts, prostitutes, etc.).

3) Crime data:

Crime data shall help answer questions about the type and frequency of crime problems in an area, where and when incidents occurred (are there specific 'hot spots' where many incidents have occurred), who was victimised, what methods (modus operandi) were used by offenders, etc.

Possible sources are:

- from police and other sources: data on recorded crimes[6];
- from police and other sources: data on offenders;
- from police and other sources: command and control data (e.g. telephone requests for police services);
- victim surveys (households and/or commercial victims like shopkeepers)[7];
- self report data offenders, offender interviews;
- opinions of relevant professionals, working in the area (e.g. police officer, schoolmaster, youth worker,
- doctor, etc.);
- opinions of other people with local knowledge (residents, shopkeepers);
- opinion of independent experts;
- other specific data sources (e.g. repair registration for vandalism, first aid/hospital info for street violence);
- the frequency of people feeling unsafe, on the streets and at home; see International Crime Victim Survey
- ICVS questionnaire 2000 (question 300/301) on the internet: http://www.icvs.nscr.nl;
- types of security precautions taken (see e.g. ICVS 2000, Appendix 4, Table 26).

4) Information from safety audits:

- in a safety audit a small group of residents and professionals or other stakeholders audit an environment by looking at e.g. lighting, maintenance, frightening places, etc.;
- maps and other records that illustrate crime data from police and residents;
- benchmarking: frequencies of different types of crime in the total area compared to frequencies in other areas (or total city/region/country).

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[6] Rather high percentages of crime are unrecorded; these percentages are different for types of crime as well as for countries; the percentage of unrecorded crime (dark number) can be estimated by using the 'percentage of offence reported to the police'. This percentage is available in most countries from victim surveys. See also: Key findings from the 2000 International Crime Victims Survey (ICVS), Appendix 4 Table 9. For more info: http://www.unicri.it/icvs/.

[7] To make area/city victim surveys better comparable it is advised to use the procedure and questionnaires of the International Crime Victims Survey (ICVS). See on the internet: http://www.unicri.it/icvs/.

Annex C
(informative)

Fear of crime

C.1 Introduction

Fear of crime refers to the fear of personally becoming a victim of particular types of crime. Victim surveys, which are used to investigate this issue, usually ask respondents how likely they think they might be burgled in the coming year and also how safe they feel walking alone in an area after dark (do you feel very safe, fairly safe, a bit unsafe or very unsafe ?') These questions have typically shown to paint different pictures of 'fear of crime'.

The degree of fear and the kind of crimes a person is afraid of, differ significantly depending on gender and age. Women, the elderly and disabled people are more likely to fear crime, especially in the evening. This may be because for this people the prospect of being out after dark evokes anxiety about a greater range of mishaps (e.g. accidents as well as crime). Women fear for their personal safety and are afraid of street violence and especially of sexual assault. It is far more terrifying to be confronted with crimes like rape, which threaten a person's integrity and dignity, than with the loss of material goods. For this reason women are usually more affected by this feeling than men.

Frightening or fearful places are not necessarily places where actual crimes occur. Nevertheless, fear influences the way people behave with regard to public spaces. In particular women and the elderly are more likely to use `avoidance strategies' that keep them away from problematic spaces and situations. They tend to restrict their own and also their children's activities because of fear of crime. This change of daily behaviour has effects on neighbourhoods, and may even lead to economic decay.

Studies of public sites where sexual assaults have occurred show that the type and characteristics of fearful places, for example poor lightning and hiding places, correlate with the occurrence of crime.

C.2 Factors which characterise an "unsafe location":

C.2.1 Fear generating activities

Areas with activities such as prostitution, drug abuse or sites with certain types of entertainment or activities that attract people whom others may be afraid of, are likely to be fear generating places.

Avoiding mono-functional areas through urban planning and design. by mixing e.g. dwellings, entertainment and shopping, enhances social control and reduce the impact of fear generators. If such an 'entertainment' area already exists, it is important to offer to

pedestrians alternative routes which should be busy, well lit and easy to control.

C.2.2 Vandalism and bad maintenance

The importance of regular maintenance and cleanliness cannot be emphasised enough. It is vital that the public realm does not lose its character through neglect, does not alienate citizens and visitors and give encouragement to potential offenders because they feel no one cares.

The cleanliness of a place and its state of repair affect our attitudes and feelings. There is evidence that, by raising the quality and speed of maintenance, less wilful damage and neglect will occur. Maintenance should be co-ordinated and continuous. Litter and graffiti shall be removed quickly and repairs carried out to match the original materials.

Locations which are neglected or badly maintained can give an impression of danger. Sense of ownership, or territoriality is often considered a vital factor in making a place more safe. If residents feel that the area outside their door does not belong to them, they will not feel responsible for the maintenance. Urban design should therefore adopt measures to increase the sense of territoriality.

C.3 Problematic urban design

This is the third factor characterising an "unsafe location". There are several factors that may cause or increase fear of crime in public spaces:

C.3.1 Lack of control

A lack of control caused by poor lighting or nooks and crannies, which can be potential hiding spots, makes people feel insecure. Passing along or through such areas can be a frightening experience because people have little control over the situation.

Visual or real borders separating spaces of different ownership should not become a barrier for lines of sight between private and public places. Such a situation can cause a decrease of `social control', which may increase fear of crime.

Ability to see and understand what is happening in an environment are important in ensuring a feeling of control in any given situation. The fear of crime can therefore be reduced by good lighting, clear sightlines and the elimination of hiding places for offenders. In order to improve the personal safety, a person and his/her facial features, should be identifiable from a distance of at least 4 m.

C.3.2 Isolation - lack of visibility by others

Some locations are quiet and isolated during particular times of the day or night, such as industrial estates, large office complexes, public transport stations, underpasses, shopping centres, city parks , multi-storey car parks, or semi-public spaces within dwellings and blocks of flats. To avoid these situations it is important to introduce diversity of functions in a neighbourhood in order to provide spontaneous surveillance by others at different hours of day and night.

Windows of dwellings facing public spaces are found to have a strong reassuring effect on most people, because there seems to be access to help, if needed. Major thoroughfares for pedestrians, as well as entrance areas of blocks of flats, should therefore be visible from dwellings, public buildings, cars, etc. For the same reason, rooms or infrastructure designated for common use in residential buildings should not be situated in the basement or in isolated parts of the building.

If "social control" is impossible to organise, quiet areas and semi-public spaces can be closed off during certain times of the day (e.g. city parks, railway stations, pedestrian

underpasses, bicycle sheds, storage spaces). At the very least, the option to close these spaces should be provided.

C.3.3 Lack of orientation and alternative routes

Knowing where you are and which way to turn contributes to a feeling of security. In situations of personal danger, it is important to find the fastest and shortest way out. Good signage is very important, especially in areas with poor visibility, to reassure people they can find an escape route if necessary. Alternative routes, which avoid potential entrapment-spots, should also be provided for remote pedestrian routes and routes through fear-generating areas.

Annex D
(informative)

Safety audit framework of an urban project

D.1 The basic principles

D.1.1 Strengthening the user's identification with the place and the user's sense of belonging to the place enhances perception of safety and prevention of crime because people develop a sense of respect and protection for the places they belong to.

D.1.2 Vitality of streets and public areas is a major factor for crime prevention, because the use of public spaces produces spontaneous surveillance. Mixed uses (commercial, residential, recreation etc.) and diversified activities imply different users at different times, thus providing constant spontaneous surveillance.

D.1.3 Every measure concerning safety should take into account the most vulnerable population.

D.1.4 Urban developments based on creating safer areas opposed to the outer world (perceived as a source of insecurity) are to be avoided because they will lead to exclusion and residential enclosure or inward oriented spaces.

D.1.5 Places mainly used by temporary users (stations, interchange points, etc.) are generally more vulnerable to crime than other areas, due to the scarce sense of belonging to the place of the users. These places should be carefully considered.

D.1.6 To improve crime prevention, planning and design should avoid creating deserted spaces (without vitality), as well as undefined or hidden places, because vandalism and other criminal acts tend to concentrate in these places. If un-avoidable, these places should be managed in term of safety.

D.1.7 A continuous urban grid and a clear layout of public places improve users' self-orientation and their feeling safe. Visibility of pedestrian spaces and routes from surrounding buildings and streets improves crime prevention and the perception of safety.

D.1.8 A clear delimitation between public and private space facilitate the management of the spaces.

D.1.9 Planning and design of circulation routes to services and housing should carefully consider safety and accessibility for all kinds of population. If a circulation route cannot provide the sufficient safety or feeling of safety an alternative route should be offered.

D.1.10 Decayed or abandoned buildings and areas, as well as dreary places communicate fear of crime and attract antisocial behaviours and crimes. Maintenance and other actions should be undertaken to prevent decay; once decay has started, these areas should be carefully monitored and treated.

D.1.11 In some cases, to improve crime prevention it is necessary to support spontaneous surveillance (mixed uses, vitality etc.) also with organized surveillance, implementable in many different ways The organisation of spaces should be conceived in order to facilitate this type of surveillance and emergency intervention.

D.1.12 Electronic surveillance (CCTV etc.) **is not an answer** to bad planning or urban design. It is useful only when it is a part of a general security plan.

D.1.13 Temporary arrangements and situations (construction yards, detours, temporary barriers and fences) produce not only discomfort but also create potentially dangerous places. Therefore, during construction works next to used spaces, temporary situations and fencing must be carefully studied and designed also in terms of crime prevention.

D.2 Urban planning strategies

D.2.1 Taking into account the existing social and physical structures

a) Does the project function as an integrated part of the whole urban structure ?

b) Does the project take into account the needs and demands of the local population ?

c) Does the project take into account the existing social networks ?

d) Does it encourage local sociability ?

e) Does the new built form integrate well with its surroundings ?

f) Does the project fit in with the organization of the existing neighbourhoods ?

g) Will the project affect the social balance ?

h) What measures are taken to manage the impact of changes ?

i) Is the new area connected to the existing city structure or does it break the existing pattern ?

j) Do the edges of the project take into account the character of the existing urban fabric or do they create

k) a gap in the vitality of the urban system ?

l) Does the project take into account the existing crime problems of the area and its surroundings ?

D.2.2 Guaranteeing accessibility and avoiding enclaves

a) Does the street network of the project provide continuity with the existing street pattern ?

b) Does the project encourage outward-facing layouts and necessary through routes to ensure populated public spaces ?

c) Does the building or street pattern avoid creating enclaves ?

d) Does the project provide good accessibility to the public transport system and safe routes to the stops ?

e) Does the project allow for some traffic flow on local streets so as to avoid creating deserted places or restricted street access ?.

D.2.3 Creating vitality (blending functions and attractive layout)

a) Do the project functions encourage vitality in the area particularly in public spaces ?

b) Does the project foresee mixed uses that generate vitality and natural surveillance ?

c) Are pedestrian, bike or mixed traffic routes conceived as to increase vitality and prevent separate movements (that decrease it) ?

d) Does the foreseen mix of uses induce compatible activities or will it generate risk of conflicts (i.e. housing and night activities) ?

e) Does liveliness go through all-day-long or is it limited to particular times ?

f) Do specific areas need all-day-long activities to reduce crime opportunities ?.

D.2.4 Providing mixed status (blending socio-economic groups, avoiding isolation and segregation)

a) Does the project encourage a careful mix of social economic groups to reduce isolated and segregated enclaves which increase crime ?

b) Does the development participate to balancing social economic groups on the scale of the surrounding neighbourhood or the city ?

c) Does the project avoid creating conditions which may induce segregated low income areas ?.

D.2.5 Creating adequate urban density to allow vitality and natural surveillance

a) Does planning provide opportunities for enhancing the sense of neighbourhood and of belonging to the place ?

b) Is land use intensive enough to create opportunities for human presence and liveliness ?

c) Do the high-density areas provide for adequate public space ?.

D.2.6 Avoiding physical barriers (due to infrastructures etc.) and waste land

a) Do the infrastructures of the project avoid creating physical barriers, enclaves or waste land ?

b) Does the project overcome physical barriers due to existing infrastructures ?

c) What does the project suggest to manage the existing waste lands ?.

D.3 Urban design strategies

D.3.1 Layout (continuity of urban fabric and pedestrian and bicycle routes)

a) Does the design create continuity with the existing streets and pedestrian/bicycle routes ?

b) Does the layout provide for clear orientation of pedestrians ?

c) Does the layout allow easy and safe walking through the site ?

d) Does design allow new users to know where they are and to find their way around, to enhance the feeling of security ?

e) Is the building arrangement compatible with the surrounding urban fabric ?.

D.3.2 Specific location of activities

a) Are there sufficient activities or residents and users to provide spontaneous surveillance on every street and public space ?

b) Are the services linked to housing (bicycle rooms, laundries, meeting rooms etc.) located in a way that they can contribute to spontaneous surveillance ?

c) Does the location of commercial activities create vitality and natural surveillance ?

d) Are pedestrian and bike routes designed in a way as to enhance vitality ?.

D.3.3 Time schedules coordination to guarantee continuous natural surveillance

a) Are the opening hours of the activities in the buildings facing public spaces able to provide continuous natural surveillance ?

b) Are there any specific actions planned to provide safety during time gaps in the vitality ?

c) Are there specific activities which can be introduced/ relocated to improve the time span of natural surveillance ?

d) Do specific spaces need activity and lighting during night time ?.

D.3.4 Visibility (overview, sight lines between e.g. dwellings and public space, lighting, etc.)

a) Does design provide good visibility of building entrances ?

b) Do landscaping and vegetation allow sufficient visibility and natural surveillance ?

c) Are bus stops and entrance to underground stations and parking facilities located as to allow maximum visibility ?

d) Are the activities on the ground floor provided with good visibility, to allow natural surveillance and calling for help ?

e) Do façades provide visibility on public spaces from various floors ?

f) Are long blind walls without openings along pedestrians routes or sidewalks avoided ?

g) Are spaces well lit to reduce fear of crime ?

h) Is a good visibility provided on isolated areas in order to reduce the risk and fear of crime ?.

D.3.5 Accessibility (orientation, space to move, alternatives routes, limiting access for nonauthorized people)

a) Are bus stops, entrances to underground stations and parking facilities located close to lively areas to reduce crime opportunities ? Are there safe routes to reach them ?

b) Are the accesses to public facilities located in lively areas so that their surveillance is enhanced and the flows they generate contribute to natural surveillance ?

c) Does the project provide access control or restriction to problematic spaces and zones at risk (crime targets) ?

d) Are there safe routes spaces accessible for disabled people ?

e) Is good accessibility guaranteed for security and safety services (police. firemen, medical) ?

f) Does the design provide clear accesses and routes, or is signage needed ?

g) Are routes and paths designed taking into account risks and fear of crime for pedestrians ?

h) Are parking lots located keeping safety criteria in mind ?

i) Was flow considered in deciding whether it is necessary to separate public access from professional access (for facilities, commercial, leisure centres) ?

j) Are the connections between the different buildings (paths, alleyways) conceived in term of safety ?

k) To improve safety, is there a need of creating compartments in large building complexes or underground parking ?.

D.3.6 Territoriality (human scale, clear public/private zoning, compartmentalization)

a) Is the difference between public, semi-public, semi-private and private spaces clear to users, in order to bring them into legitimate uses ?

b) Is the separation between public and private spaces materialized, physically or symbolically ?

c) Does the design of a space make clear the purpose of the space ?

d) Have the spaces been thought for different target groups according to their needs ?

e) Does this territoriality create feeling of ownership and responsibility among the users ?

f) Is the scale of the new designed space in accordance with its purpose and uses ?.

D.3.7 Attractiveness (colour, material, lighting, noise, smell, street furniture)

a) Is the character of public spaces friendly for users, in accordance with common sense, to enhance appropriation by the users ?

b) Does the project create attractive and useful places for people, to enhance sense of belonging and responsibility ?

c) Does the project avoid creating nuisances that make the attractiveness of the area decline ?

d) Does the design stimulate and allow for spontaneous activities ?.

D.3.8 Robustness (materials e.g. street furniture, fences)

a) Does the concept and design allow for durable construction which minimize deterioration and maintenance ?

b) Would the materials (benches, dustbins, signage) be robust enough to resist to vandalism ?

c) Is the use of robust materials compatible with their attractiveness ?

d) Have the choice of materials been thought with crime prevention in mind (robust materials, replacing flammable materials for the risks of arson) ?

e) Are they adapted to the needs of the users ?.

D.4 Management strategies

D.4.1 Target hardening/removal

a) Does the project provide for human and material security measures for spaces which have been identified as high-risk space or targets of crime ?

b) Should the project plan specific accessibility, protection and compartmentalization of technical places, electricity, gas, water and telephone systems ?.

D.4.2 Maintenance

a) Are maintenance and management strategies and measures planned ?. Do the design and layout facilitate these ?

b) Are maintenance measures planned so that spaces will be attractive and lively and generate a sense of responsibility and security ?

c) Does the management strategy provide for stakeholders, steps to be taken and regular monitoring and assessment measures ?

d) Does the maintenance strategy ensure quick, responsive and prompt responses to reduce the risk of vandalism, repetition of offences as well as to reduce feeling of derelict or unused spaces ?

e) Are the different spaces within the area equally maintained to prevent the risks of crime to focus on some ?

f) Does the management strategy provide for a partnership between the stakeholders to ensure homogeneous measures and implementation (regular meetings, specific document) ?

g) Does the maintenance strategy ensure specific measures for lighting, electricity and telephone systems (regarding protection and quick repairs if needed) ?.

D.4.3 Surveillance (patrolling, camera monitoring)

a) Is there a security professional in the management staff ?

b) Have the different measures of surveillance been studied and assessed (police, security services, concierges/janitors, block guards, on foot, by car, natural surveillance, Closed Circuit Television (CCTV) ?

c) Have specific surveillance for public facilities access routes and entrances/exits been provided, during the day and during the night ?

d) Who are the different stakeholders for safety and security ? What is their own area of action and responsibility ?

e) Does the project provide for a balanced set of surveillance measures, including the definition of public and private responsibilities ?

f) Do specific places of the area require a surveillance to be supported by Closed Circuit Television (CCTV system) ? In these cases, does the CCTV system provide for regular monitoring and assessment measures ? Is the connection between the surveillance professionals and the management stakeholders organized, to reinforce the effectiveness of both parts ?.

D.4.4 Rules (for conduct of the public in public spaces)

a) Does the project define and communicate clear rules for the use in public spaces ?

b) Do users perceive easily and plainly those rules defined by managers ?

c) Does those rules increase the sense of responsibility towards the space ?

d) Is the application of the rules checked and overhauled by managers and surveillants ?

e) Is it necessary to foresee actions of communication between managers, surveillants and residents or users of the space ?

f) Is it necessary to distribute a document which would clarify the rules in terms of maintenance and prevention of crime ?.

D.4.5 Providing infrastructures for particular groups

a) Does the project take into account the whole population on site or likely to come on site (homeless, drug addicts) ?

b) Does the project provide specific measures for these specific target groups (to see vulnerable persons for their route, creation of a reception and information center, organization of focus groups) ?

c) Does the project take into account the perception of the most vulnerable groups such as women, children or seniors ?

d) Is it foreseen to create an appropriate partnership between social workers and managers ?.

D.4.6 Communication (of preventive messages and rules of conduct for the public)

a) Does the project include the provision of information to explain the rules to the residents or users of public facilities ?

b) Will users be in a position to easily get information and to ask managers for help or assistance ?

c) In order to improve the feeling of security for residents and to reduce risks of crime, is it necessary to communicate the prevention measures ?

d) Which actions to increase public awareness will be implemented for potential users and specific populations (like juvenile groups) in order to increase the sense of responsibility toward the new area ?

e) How will the current users or residents of the existing neighbourhood be involved in the project so they are encouraged to use the site and not vandalize or attack it ?.