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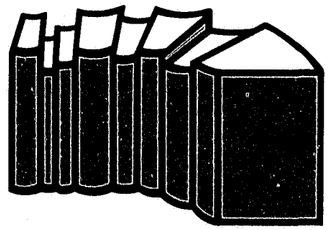

Design Guide for Secure Adult Correctional Facilities

Introduction

This design guide reflects the dynamic changes occurring in the development of correctional facility design since the 1970's. The guide is for medium security institutions with a capacity of up to 500 inmates, because this is where the largest amount of construction is expected to take place. It advocates practices that encourage greater interaction between staff and inmates, the use of decentralized forms of inmate management, reduction of physical barriers separating staff and inmates, and greater reliance on professional supervision of inmates. It describes recent design experiences to aid correctional systems embarking on new construction. This *Book in Brief* summarizes selected chapters of the guide, focusing on planning, design, and construction issues, inmate housing and services, and security features.

Planning, design, and construction

Planning phase. Planning involves predesign planning, site selection, and site acquisition. Predesign planning concerns planning for a specific facility that the correctional agency has deemed necessary. The first step is to form a steering committee. The committee:

- defines the institutional mission and articulates an operational philosophy;
- establishes the institution's capacity;
- collects inmate demographic information;
- determines security needs;
- estimates staff requirements by functional area;
- defines the general type of physical environment;
- prepares a preliminary budget; and
- develops a timetable.

A fundamental consideration in site selection is proximity to a major metropolitan area. A correctional facility in such a location has many advantages. Inmates' relatives can visit more frequently, staff recruitment is easier, and staff members are more likely to represent the racial and cultural backgrounds of the inmates. In addition, proximity to a major city's resources offers cultural attractions and expanded educational and housing opportunities for the staff. These factors promote good staff morale and can reduce turnover.

Generally, a 500-inmate facility should be located on at least a 150-acre site. This size offers flexibility in planning the institution's compound, parking, roads, and security perimeter, and affords adequate "buffer" zones around the institution. Ideally, the site topography should be relatively flat with good drainage to avoid expenses associated with site grading. Good access roads are essential to avoid costly road development. Local concerns about personal safety and environmental impacts can be addressed explicitly in a formal report and should be alleviated early in the planning phase.

Design phase. Development of the architectural program is the next stage in the planning process. The architectural program serves as a written set of instructions to the designer, linking the proposed facility's general mission and the physical design solution.

The architect and design team should have both technical and managerial skills. Equally important, the hired specialists must be able to communicate effectively with the client. There

Summarized from *Design Guide for Secure Adult Correctional Facilities* with permission of the American Correctional Association, 1983. Summary published June 1985.

Design Guide for Secure Adult Correctional Facilities is available from the American Correctional Association, 4321 Hartwick Road, Suite L-208, College Park, MD 20740. Price $40 for ACA nonmembers; $32 for ACA members.

are several ways to select an architect, including comparative selection, direct selection, and design competitions.

Basic services provided by most architectural and engineering (A/E) teams include:

- probable construction costs, analyses, and controls;
- schematic design;
- preparation of construction contract documents;
- assistance in construction bidding; and
- observation of construction activity.

In addition, the A/E team can assist agency personnel with site selection, preparation of the architectural program, security systems design, landscaping, presentation materials, environmental reports, life-cycle cost analysis, and related tasks.

The design process will proceed sequentially. The schematic design phase will diagram facility space requirements. The design development phase further refines the architectural design, delineating the specific types of construction materials to be used, building forms, and appearances. Then, during the construction document phase, the architect prepares working drawings and specifications. Next comes the bidding and negotiations phase. When this is completed, the project is ready to begin the construction phase.

Construction phase. This generally begins by the agency advertising for contractors to submit bids, after which a construction contract is signed with the selected bidder. The agency may then want to hire a construction management firm to supervise the construction.

One option the agency might consider is phased, or fast-track, construction. This approach compresses the time needed to complete the project by using a special, multiple-contract procedure. While it requires much more intensive planning, it allows correctional agencies to complete facilities more quickly than the conventional method. This may be an important consideration in the event of an acute inmate housing shortage.

As another option, a correctional agency may want to use inmate labor and in-house staff for construction. Successful inmate employment requires staff who are skilled in various building trades, the use of easily erected construction components, and simple building techniques.

General design and construction issues. Current standards recommend that institutions have a design capacity of no more than 500 inmates. When the population exceeds this number, it becomes increasingly difficult to provide effective management. Therefore, correctional systems requiring large expansions occasionally resort to "clustering" two or more facilities on a common site each with a capacity of up to 500. This reduces direct capital and operating costs and makes it easier to obtain sites. Despite these rationales, decisionmakers are urged to avoid clustering. The drive to achieve direct savings can produce unforeseen indirect costs.

Site plan considerations are of paramount importance. The goal of site planning is to obtain a good balance between supervision and sound environmental planning. Particularly appropriate for attaining that balance are campus plans with large main compounds, rather than corridor-system plans with rigid inmate circulation. Campus plans, with their dispersed housing, effective perimeter security, and outdoor lighting, offer diversity, provide exercise, and help reduce the inherent tensions of institution living.

Inmate housing

The type of inmate housing provided conveys to the inmates the philosophy and general attitude of the administration, and sets the tone for the entire facility. Private rooms best meet the goals of decent and humane housing. While they entail higher initial construction costs, they provide significant long-term advantages. Single rooms reduce the likelihood of inmate conflict—if a disturbance does occur, the duty officer can lock each inmate in his or her own room until the problem is resolved. Also, single rooms offer flexibility in accommodating different types of inmates. They give privacy, dignity, and personal space, which contribute to a more normal residential character while lessening management problems.

Decentralized management systems are recommended whereby an institution is subdivided into semi-autonomous units. These units increase staff/inmate contact, foster better interpersonal relationships, and lead to more knowledgeable decision-making. A unit with a stable staff allows an offender's total correctional program plan to be designed and implemented by a single, small staff group—the unit team. The multidisciplinary team is responsible for program assignments, coordination of leisure activities, participation in disciplinary hearings, and parole recommendations. The team is also in charge of sanitation, physical upkeep, and inmate custody and control.

Contemporary designs combine normal corridor space with dayroom space to create a central multi-use area around which all inmate rooms are grouped. These designs adopt the cost-effective method of locating inmates' rooms on two tiers, creating a split-level scheme. This arrangement facilitates clear visibility of inmates, thus enhancing staff surveillance from a central location and eliminating the need for rigorous corridor patrol.

Central, multiuse space accommodating up to 65 inmates should contain at least 1,800 square feet. Inmate rooms should have 60 to 80 square feet containing a water closet, lavatory, bed, desk, chair, bookshelves, and wardrobe.

One of the most controversial issues in correctional facility design concerns physical barriers separating staff and inmates. Some authorities believe that secure minicontrolrooms are needed in each housing unit for all but minimum security inmates. But such an arrangement reduces staff/inmate contact (doors are operated by remote control), fosters a we/they dichotomy, and promotes complacency in correctional officers. Eliminating barriers and having all available housing unit staff in frequent, direct contact with inmates usually diffuses problems before they become serious.

Segregated housing

For disciplinary or security reasons, it is sometimes necessary to separate some inmates from the main population. The recommended method of segregation is a single structure comprising two wings. One wing houses administrative segregation inmates—those who are being investigated for rule infractions; the other houses the disciplinary detention population—those who have been found to have violated a rule. Unlike general housing, there is no need for a large, central multiuse space because inmates are generally confined to their rooms, and are segregated for relatively short periods of time.

Protective custody, a third type of segregated housing, may best be performed by placing inmates in another institution where they can be housed safely in the general population. If there are enough inmates requiring protective custody, a separate, self-contained unit can be built. This facility contains the same features as regular segregated housing. In addition, because the inmates cannot circulate in the main institution or be seen by the public, space for many of the activities that are provided centrally for the general population must be included in the protective custody wing.

Inmate services

Inmate services require facilities for admission and discharge, medical care, food service, canteen, mail, and personal care.

- The admission and discharge area is located outside the institution's secure perimeter near the front entrance. The area includes an entry room, processing area, holding rooms, search and shower area, personal property storage, and general purpose storage. The admission and discharge activities function most efficiently if the area is located near related services, including the medical facility, mailroom, and information management office.
- A facility's medical clinic requires about 4,300 square feet divided into functional areas for administration, diagnostic services, a pharmacy, outpatient clinic, and treatment room. A small but comprehensive dental suite and facilities for mental health services are needed in virtually all correctional facilities.
- A good food-service program lessens the urgency of many inmate concerns and can promote orderliness and safety. A single, central dining area is the preferred design. For the special housing programs, meals can be preplated, transported, and warmed in microwave ovens. Because the dining room is the most frequently used service facility, its location is a key institutional design element. It should be large enough to seat up to 50 percent of the total inmate population and 10 percent of the staff.
- The canteen sells to inmates items not routinely issued such as candy, cigarettes, and ice cream. Because the service is used regularly, it should be located on a major inmate circulation route. A canteen should have an entrance of approximately 200 square feet to accommodate a waiting line of 20, a display area, and a sales area of approximately 150 square feet.
- The mailroom in a 500 capacity facility will typically contain about 150 square feet. Although processing outgoing mail is an important function, the mail staff's primary task is controlling the entry of contraband. Therefore, the mailroom must be secure from unauthorized entry.
- An in-house laundry should include a laundry room, clothing exchange where clothing is stored and issued by name, and a storage/workroom. Planners should conduct a cost-benefit assessment to decide whether to operate an in-house laundry or to contract out laundry services.

Security features

Building security begins with the perimeter enclosure around the institution and includes walls, ceilings, and floors of housing units. Standard construction techniques can be used for most buildings. However, the entrance structure, control center, armory, locksmith shop, cashier's office, mail room, information management office, pharmacy, canteen, admissions and discharge holding rooms, and medical inpatient area require more secure construction.

The control center—the "nerve center" for the entire facility—is usually part of the administration building and should be located near the front pedestrian sally port, or entrance. Control center activities involve such tasks as observing and controlling traffic through the entrance and exit, recording inmate counts, and monitoring fire and security alarm systems.

Good surveillance requires adequate buffer zones inside and outside the secure compound. A 150-foot cleared area delineated by a 12-foot high chain link fence marks the facility's boundary. Reliable perimeter security allows inside operations to be more relaxed with resultant reduction in inmate and staff tension. Mobile patrols offer a modern replacement for the older watch towers. Proper location of the institution's roads and parking areas facilitates good traffic control and enhances perimeter surveillance. The parking area should be located near the front entrance so it does not impede surveillance.

The armory provides storage space for firearms and related items. It should be a secure, climate-controlled space of about 150 square feet.

The locksmith shop requires a 200 square foot area. The locksmith's primary responsibility is keeping all institutional locking devices in good operating condition.

Additional information

The design guide contains detailed information on many design considerations not possible to examine here. Some of these considerations concern inmate programs—orientation, visiting, education, vocational training, recreation, religious observances, etc.—and some involve service facilities—plant maintenance, safety and sanitation, garage and warehouses, and utility and power systems.

Two appendixes provide staffing guidelines developed by the Federal Bureau of Prisons, and Standards of the American Correctional Association on space allocation and design criteria. Numerous floor plans and photographs of facilities complement this design guide.

Sources on this topic:

American Correctional Association
W. Hardy Rauch
Standards Department
4321 Hartwick Road
College Park, MD 20740
301–699–7660
Provides information regarding planning and construction; responds to specific inquiries.

American Institute of Architects
1735 New York Avenue NW.
Washington, DC 20006
202–626–7300
Provides information on correctional facility design and construction in response to requests by mail.

Commission on Accreditation for Corrections
Shelley J. Price
6110 Executive Boulevard, Suite 600
Rockville, MD 20852
301–770–3097
Distributes copies of publications and reports related to topic; receives requests by mail or telephone.

National Criminal Justice Reference Service
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Rockville, MD 20850
301–255–5500
800–851–3420
Distributes selected documents related to topic; performs custom searches of data base; subject specialists make referrals; has reading room.

National Institute of Corrections
C.W. "Rusty" Dickerson
National Information Center
1790 30th Street, Suite 130
Boulder, CO 80301
303–444–1101
Responds to specific mail or telephone inquiries related to topic; provides relevant publications.

Further readings:

Architecture for Justice Exhibition, 1983. By the American Institute of Architects Committee on Architecture for Justice. 1983. 74 pp. Availability: American Institute of Architects Committee on Architecture for Justice, 1735 New York Avenue NW., Washington, DC 20006. Single copies available free by written request—stock no. TH4021.A5A7.

Correctional Architecture—Focus '84. By the American Correctional Association. *Corrections Today*, V 46, N 2 (April 1984), entire issue. Availability: American Correctional Association, Publications, 4321 Hartwick Road, College Park, MD 20740. Single copies available free by written request. NCJ 93551

Prison Construction Initiatives. Sponsored by the National Institute of Corrections. 1982. 9 pp. Availability: free microfiche from NIJ/NCJRS. NCJ 82504

Prison Design and Construction or Why Do Prisons Cost So Much? By J. McGough. *Corrections Today*, V 44, N 1 (February 1982), pp. 46–49, 75. Availability: free microfiche from NIJ/NCJRS. NCJ 81463

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