
STANDARD LEVEL FEATURES AND FINISHES FOR U.S. COURTS FACILITIES

*Complements U.S. Courts Design Guide and
Facilities Standards for the Public Buildings Service (PBS-PQ100.1)*

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**U.S. General Services Administration
Public Buildings Service**

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MEMORANDUM FOR ASSISTANT REGIONAL ADMINISTRATORS -
1P, 2P, 3P, 4P, 5P, 6P, 7P, 8P, 9P, 10P, WP

FROM: ROBERT A. PECK /signed Robert A. Peck/
COMMISSIONER - P

SUBJECT: Standard Level Features and Finishes
for U.S. Courts Facilities (March 1996)

This memorandum issues and transmits a revised edition of the subject document, Standard Level Features and Finishes for U.S. Courts Facilities (SLFF). This revision, dated March 1996, will supersede the existing SLFF dated October 1994.

As a complementary document to the United States Courts Design Guide (USCDG), issued by the Administrative Office of the United States Courts (AOC), the SLFF establishes the baseline standard level of features and finishes for U.S. Courts facilities that are funded by the General Services Administration (GSA). In addition, the SLFF defines standards for special space in areas assigned to the U.S. Marshals Service and support space provided by GSA.

The March 1996 edition of the SLFF addresses issues raised by AOC after publication of the October 1994 edition, particularly questions concerning funding for specific courtroom furnishings and equipment.

Regional offices are not required to implement the attached edition of the SLFF until October 1, 1996; however, we are issuing it prior to that date for planning purposes. After October 1, 1996, it will supersede the October 1994 edition, and should be used in conjunction with the USCDG and any other documents containing requirements for U.S. Courts facilities, such as the Facilities Standards for the Public Buildings Service (PBS-PQ100.1).

Attachment

cc:
Regional Administrators -
1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, WA

TABLE OF CONTENTS

Introduction 1

- Building Planning Issues. 2
- Specific Requirements for Building Systems. 2
- Specific Requirements for USMS and GSA Court Security 2
- Specific Requirements for GSA Support Areas..... 2

Building Planning Issues 3

- GSA Project Development Policies 3
- U.S. Court Planning Factors 3
 - Internal Circulation Factors (Intra-Agency or Intra-Department) 4
 - Building Grossing Factors 5
 - Basic Courthouse Zoning and Building Configuration 8
 - Planning for Expansion and Future Conversion of Spaces from Offices to Courtrooms..... 10

Specific Requirements for Building Systems..... 11

- Architectural Interior Finishes for U.S. Court Facilities..... 11
 - Courtrooms (New, Within Existing and/or Historic Buildings)..... 11
 - Walls 11
 - Doors and Frames 12
 - Bases 12
 - Trim and Moldings 12
 - Ceilings 12
 - Floorcoverings..... 13
 - Built-In Courtroom Furniture..... 13
 - Judges' Chambers (Except Private Toilets), Circuit Court Conference Rooms, and Robing Rooms. 13
 - Walls 13
 - Walls (All Other Spaces Except Closets and Storage) 14
 - Walls (Closets and Storage)..... 14
 - Bases (Judges' Chambers, Conference Rooms, Robing Rooms, Secretary/Reception) 14
 - Bases (All Other Spaces) 14
 - Doors and Frames..... 14
 - Trim and Moldings 15

Ceilings	15
Floorcoverings (Except Storage and Service Units):	15
Floorcoverings (Storage and Service Units)	15
Bookshelves (Judges' Chambers)	15
Bookshelves (Library Conference).....	16
Lockers (Robing Rooms).....	16
Judges' Private Toilets	16
Walls	16
Bases	16
Floors	16
Ceilings	16
Vanity Cabinets	17
Mirrors	17
Medicine Cabinets	17
Service Units (Judges)	17
Standard Level Finishes for Spaces of Other Agencies and Personal Offices of	
Agency Heads.....	17
Walls	18
Doors and Frames	18
Bases	18
Floors	18
Selection of Materials and Finishes for Interior Public Spaces.....	18
Miscellaneous Fixtures, Furnishings, and Equipment.....	19
Courtroom Millwork and Furnishings	19
Special Dining	19
Clock Systems	19
Audio Equipment in Conference Areas and "Special" Rooms	19
Signage.....	19
Artwork.....	20
Interior Plantings.....	20
Acoustical Planning for U.S. Courts	20
Building Envelope.....	20
Changes in Building Envelope to Meet Energy Guidelines	21
Engineering System Requirements	21
Design of Environmental Conditions Within "Special" Spaces	21
Central HVAC Plant Design.....	21
Plumbing System Design.....	22
Electrical System Design.....	22

Emergency Service.....	22
Lighting Systems.....	22
Telephone, Data, Electronic Surveillance, and Security Systems and Equipment	23
Specific Requirements for USMS and GSA's Federal Protective Service (FPS)	25
General Security Requirements	26
Separation of Vehicle Entry.....	27
Separate Parking.....	27
One Screened Building Entry Point	27
Separate Circulation System.....	28
Secure Areas-of-Refuge.....	29
Secure Perimeter Around Prisoner-Occupied Areas.....	30
Bullet- and Break-Resistant Glazing and Shielding.....	30
USMS Designated Areas	31
Users	31
Accessibility	32
Specific Design Requirements	33
Administrative and Clerical Areas	33
Construction Requirements for Structurally Modified Detention Areas (SP-3A)	33
Specific Requirements for GSA Support Areas	34

STANDARD LEVEL FEATURES AND FINISHES FOR U.S. COURTS FACILITIES

Introduction

This document is a complementary document to the *U.S. Courts Design Guide (USCDG)*. The USCDG contains requirements for the space assigned to the Administrative Office of the United States Courts (AOC). The guidelines contained in the USCDG have been defined and adopted by the Judicial Conference of the United States.

This document establishes the baseline standard level of features and finishes for U.S. Courts facilities that are funded by the General Services Administration (GSA). It serves to clarify court planning and design issues in the USCDG based on GSA's policies. Items included in the USCDG but not shown in this document are above standard and are a reimbursable expense to the occupant agency. However, this document is not intended to be a detailed compendium of specific features. Rather, it is intended to indicate a level of quality in order to determine costs. This document also defines standards for special space that is in areas assigned to the U.S. Marshals Service (USMS) and support space provided by GSA.

In addition to this document and the USCDG, other documents containing requirements for U.S. Courts facilities are the *Facilities Standards for the Public Buildings Service (PBS-PQ100.1)*, the *Federal Property Management Regulations ((FPMR), Chapters 101-17 and 101-19)*, and the *Prospectus Development Study (PDS)* completed for each project.

PBS-PQ100.1 contains standards and requirements for all other portions of a facility that house U.S. Courts. The PDS provides project-specific programs, budgets, and implementation strategies. FPMR's define space standards, standard alterations, and space classifications in GSA-controlled spaces, including special classifications for court spaces.

This document is composed of the following sections:

Building Planning Issues. This section contains illustrations and descriptions of planning guidelines and GSA policies regarding planning for flexibility and expansion of U.S. Court facilities.

Specific Requirements for Building Systems. This section contains a summary of specific directions for architectural and engineering systems which should be provided in buildings containing the U.S. Courts.

Specific Requirements for USMS and GSA Court Security. This section contains general and special planning requirements for USMS.

Specific Requirements for GSA Support Areas. This section addresses policy for the provision of GSA support areas within U.S. Court facilities.

Building Planning Issues

This section defines the planning and design terms, methodology and concepts used by the GSA Public Buildings Service which apply to facilities containing U.S. Courts.

GSA Project Development Policies

The FPMR, Chapter 101-17, provide guidelines for tenant space allocations within GSA-owned and controlled spaces. GSA provides three basic types of improvements for tenant space: (1) "standard" space, which is reimbursed by the tenant agency to GSA through a baseline annual user charge; (2) "special" space, which is reimbursed by the tenant agencies to GSA through an adjusted annual user charge; and (3) "above-standard" improvement to space which is paid for by a direct reimbursement from the tenant agency to GSA. GSA provides special classifications for U.S. Court spaces in response to the U.S. Courts' special needs. Please refer to the FPMR, Appendix A of Chapter 101-17, for definitions of special spaces.

This document describes which criteria contained within the USCDG are provided within the GSA standard, and which above-standard costs and provisions are born by the U.S. Courts or other agencies. Note that some project-related costs for construction projects must be born by the U.S. Courts or by USMS.

The PDS contains a program for each project that establishes a list of spaces and defines the requirements of the project and the related budget for the project. All requirements must be included within PDS budget, including known reimbursable work, prior to congressional authorization of this budget. Once the project is approved, the scope of the project is finalized, and tenant agencies must fund additional scope requested.

U.S. Court Planning Factors

In a PDS for a specific project, there are several important planning issues which should be considered, including internal circulation factors, building grossing factors, basic courthouse zoning and building configuration, planning for expansion and conversion of space from

office use to court use, providing for vehicle access and parking within the building and providing remote tenant storage.

Internal Circulation Factors (Intra-Agency or Intra-Department). GSA assigns "occupiable area" to Federal tenants. GSA defines "occupiable area" (in the FPMR) as "that portion of the gross area which is available for use by an occupant's personnel or furnishings . . . [and includes that space] used to provide [internal] circulation" (circulation within the area assigned to the tenant agency). The GSA terms "occupiable area" and "net usable space" are synonymous with "occupiable area" (referring to tenant-assigned space in GSA-owned facilities), and "net usable space" (referring to tenant-assigned spaces in leased facilities). The term "NSF," as used in the table contained in the USCDG, is not synonymous with the GSA definition.

The USCDG requires an internal circulation factor of 20 to 40 percent of the total net area programmed for a particular facility. However, it is critical that the factor be considered carefully, because factors may be higher for some areas than others. The internal circulation factor depends on many issues, including building configuration, the average size and depth of the spaces served by the circulation (e.g., the amount of internal circulation required for many small workstations may be higher than for one large room), and the general design intention of the area ("compressed" versus "spacious").

Based on these criteria alone, it is appropriate to use different internal circulation factors for a number of different tenants and areas, such as (1) office areas for the Clerk of Court, U.S. Probation Service, or pretrial services; (2) U.S. Courts library areas; (3) areas on the courtroom floors; (4) special areas such as the judicial chamber suites and jury deliberation suites; (5) building support areas controlled by GSA; and so forth. In addition, if the tenant desires partitioned circulation both within and external to a judge's chamber suite, the minimum factor may not be adequate. However, caution must be used in the design, as a high factor overall will be compounded with the GSA massing factor, leading to a more costly building.

Since "internal circulation" is included in the definition of "occupiable space" leased by the U.S. Courts, GSA does not define the internal circulation factors for court spaces. Instead, GSA will ask the AOC for the appropriate factors to develop the PDS for U.S. Court projects.

Building Grossing Factors. GSA uses a number of standard building grossing factors for establishing space "budgets" which are used for setting construction cost budgets for U.S. Court facilities.

GSA recognizes that U.S. Court building designs require more public space than do other federal office buildings. Allowances for this public space and additional circulation systems are included in the building grossing factors assigned to U.S. Court projects.

For U.S. Court projects, GSA charges designers with developing building designs for U.S. Court facilities in which at least 67 percent of the total "gross" area of the building is "occupiable" space as defined in the FPMR. The calculation of this efficiency shall be done as shown on GSA Form 3596, *Project Development Cost Estimating Requirements for New Construction*. This document shows that the total efficiency is a weighted average of all the space types in a building. The 67 percent minimum efficiency for courthouses is the total occupiable area minus interior parking, divided by the total gross space, minus that portion of the gross applicable to interior parking, which is not necessarily an entire floor if there are other functions on it. The gross area includes mechanical and service spaces on mezzanines.

To help clarify these definitions, the following diagrams illustrate two conditions (office floor and courtroom floor) typical of many U.S. Court facilities. The diagrams illustrate the total "occupiable" and "gross" areas provided on each floor.

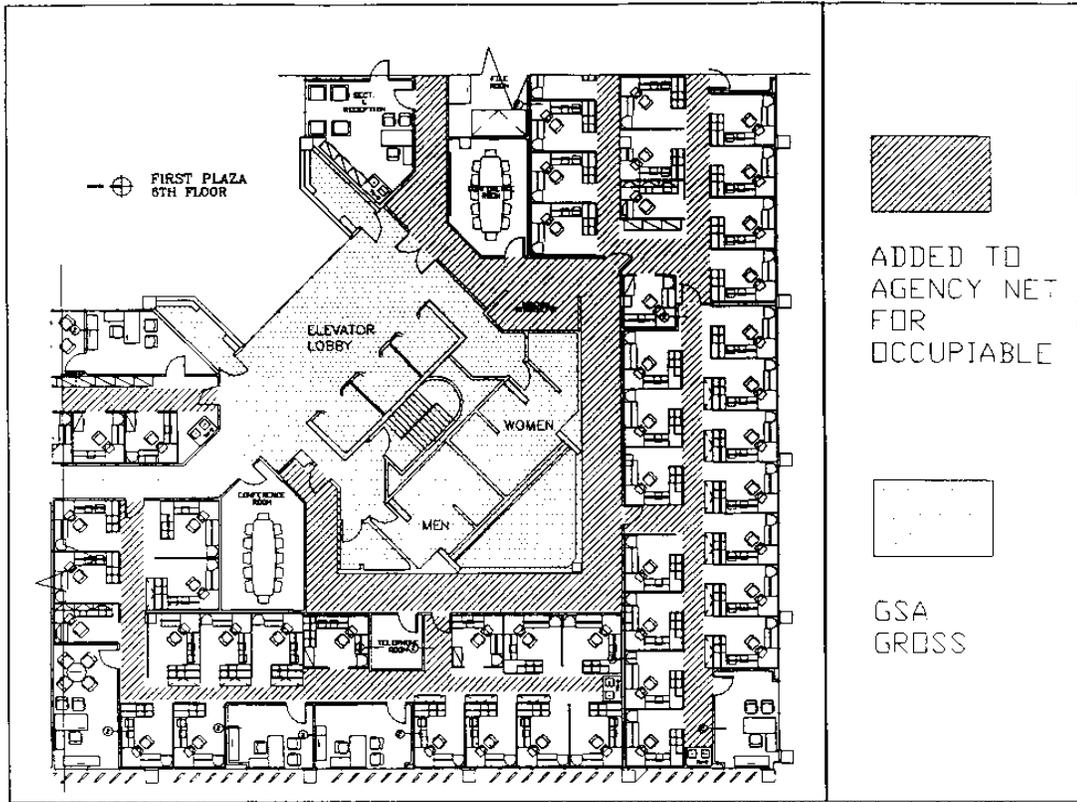


Illustration Two: Office Floor Plan Space Definitions

In assigning a benchmark percent of "occupiable" area in relation of the overall building gross area for U.S. Court projects, GSA acknowledges that the main public entry level and the service/maintenance levels of a U.S. Courts building are less efficient (in percentage) than typical office and courtroom floors, but that the overall court facility can achieve the design benchmark.

Basic Courthouse Zoning and Building Configuration. GSA recognizes the inherent complexities involved in the design of a functioning U.S. Court facility. The USCDG describes in words and diagrams the operational relationships, circulation systems, and building zones which must be provided in new and newly renovated U.S. Court facilities. The following illustrates relationships that GSA will provide in the architectural and engineering system designs for U.S. Courts. Concepts for the entry, zoning, and circulation of the building are presented in simplified building floor plan and section for informational purposes only, and are not intended to be used for the actual development of floor plans and building concepts.

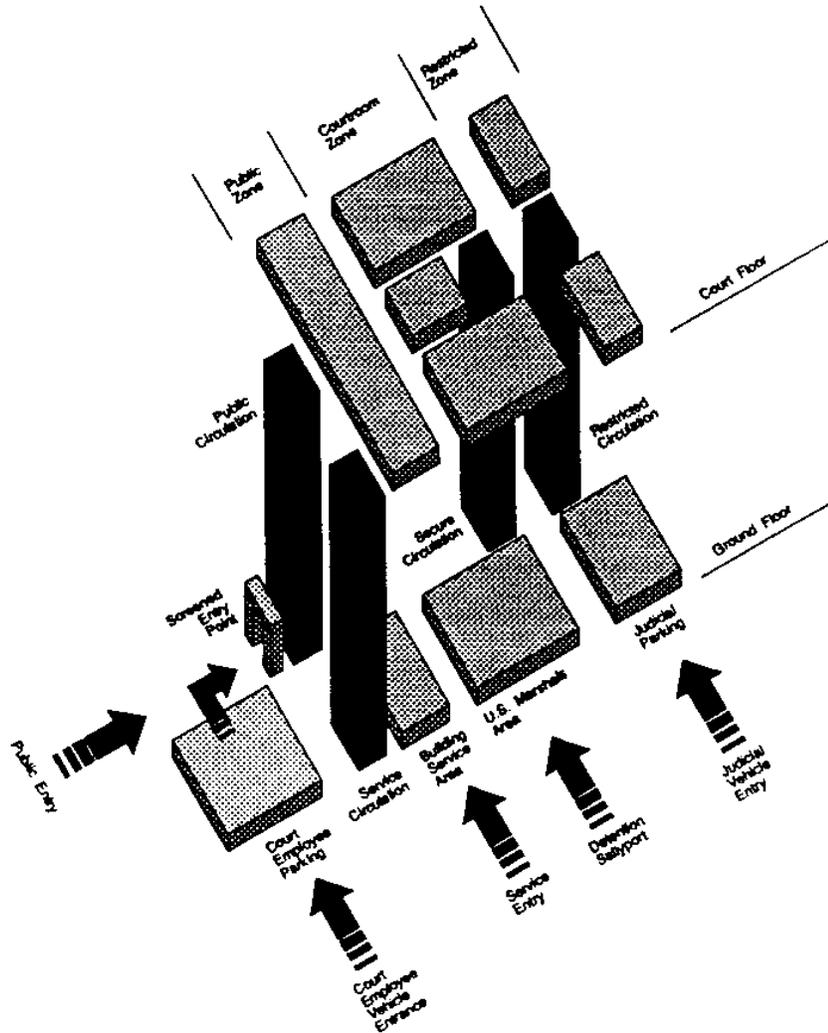


Illustration Three: Court Building Zoning and Configuration

In response to this need, GSA will build to the 10-year court's requirements, but also plan for the 30-year needs of the courts. GSA will design future U.S. Court projects to develop conceptual design options which address not only the approved program included in the PDS, but which also address the needs of the 30-year plan provided by the U.S. Courts. The preliminary concepts must show both the total 30-year plan, whether that be by later addition or deferred tenant fit-out, and the portions to be built within the prospectus.

If land cost or availability is such that future horizontal expansion is precluded, GSA will design areas of the building that will be courtrooms in the future to have bay spacing and floor loading suitable for such use. The design will have vertical shaft locations for future location of prisoner and judicial circulation systems that will be planned for easy and logical expansion. Future judges' chamber suites, however, will initially be designed for GSA office floor loading, with a structural system that can be reinforced in the future if the suite requires higher floor loading when it is built. GSA will use building grossing factors which accommodate larger public circulation on floors designated for future conversion to courtrooms from office-type tenants. In other words, building grossing figures to be used in calculating the expected factors and construction cost budgets on court projects will be based on the future projected distribution of space types, rather than the distribution of space types at occupancy. This means that on initial occupancy there may be more occupiable space in the building than at the completion of a 30-year plan.

When office space is converted to special space in the future, all costs incurred at the time of conversion will be considered to be initial space alteration. For courtrooms, this would also include the increased size and finish of public circulation.

Specific Requirements for Building Systems

This section summarizes specific directions for the design and construction of architectural and engineering systems which should be provided in buildings designed to serve the U.S. Courts.

Costs for construction are included in the baseline annual user charges when they are designed within the criteria for construction methods and the material/finish standards specified in PBS-PQ100.1.

Costs for construction of spaces to "above-standard" levels of materials and finishes must be reimbursed by the requesting agency. An example might be in an office area designed for use by the district clerk. Typical office spaces for the district clerk should comply with PBS-PQ100.1. If higher levels of materials or finishes are requested on a specific project, GSA will provide the upgrades, but funds for additional expenses will be requested from the U.S. Courts.

Architectural Interior Finishes for U.S. Court Facilities

The following list of interior finish criteria provides examples of standard level finishes which apply to U.S. Court projects, and should be used in developing cost data bases for project budgets. All finish criteria, except as noted, are provided by GSA within the baseline standards. These finishes represent a quality standard or benchmark and are not intended to dictate specific design solutions or treatments.

Courtrooms (New, Within Existing and/or Historic Buildings).

Walls:

- American Woodworking Institute (AWI) premium-grade hardwood veneer panelling and/or wainscot, stained and finished with a transparent sealer. The technique of using "bookmatched" panels should be limited to small areas of highlighting and not for overall rooms or systems, and only where finished walls will remain exposed.

- The upper wall surface over a partial height wainscot shall be finished with Type II vinyl wallcovering, fabric wallcovering, or paint.
- Acoustical treatment, decor, or detailing as required to meet noise criteria (NC) which would modify finishes above.
- Decor or detail treatment to be compatible with the overall architectural design characteristics of the building.

Doors and Frames:

- AWI premium-grade hardwood veneer solid-core door and solid hardwood door jambs, stops, and casings, stained and finished with a transparent sealer.
- Decor or detail treatment to be compatible with the overall architectural design characteristics of the building.

Bases:

- AWI premium-grade solid hardwood, stained and finished with a transparent sealer.
- Decor or detail treatment to be compatible with the overall architectural design characteristics of the building.

Trim and Moldings:

- AWI premium-grade hardwood decorative moldings, or as dictated by the design or existing building decor conditions. Items include, but are not limited to, base, chair rail, crown and panel molds, caps, and other moldings as required.
- Decor or detail treatment to be compatible with the overall architectural design characteristics of the building.

Ceilings:

- Gypsum wallboard finishes, including skim coats over gypsum material, as dictated by the design or existing building decor conditions. Other ceiling elements, such as soffits, perimeter coves, recesses, and reveals, shall be provided as required to integrate heating, ventilation, and air-conditioning (HVAC), lighting, and sound systems into a harmonious design.

Floorcoverings:

- 1 400 grams per square meter face weight synthetic (nylon or equal) commercial-grade carpet over a synthetic fiber pad.

Built-In Courtroom Furniture:

- For the initial design, all fixed courtroom furniture elements, such as judges' benches, courtroom deputies' and court reporters' benches, jury and witness boxes, lecterns and counsel tables (consistent with the design of the jury box and judge's bench), railings, and gates, shall be fabricated as custom millwork items, per requirements of the AWI, with premium-grade hardwood veneer panels and solid hardwood, stained and finished with a transparent sealer. All internal vertical surfaces of judicial benches must have bullet-resistant shielding incorporated as required in the USCDG. The lectern and counsel tables shall be included as standard level features even if they are moveable, and shall be selected and/or designed to match the finish of the built-in furniture (bench, jury box, etc.).
- Decor and detail treatment to be compatible with the overall architectural characteristics of the courtroom design.
- Judges' benches, courtroom deputies' and court reporters' benches, lecterns, and counsel tables shall be designed to accommodate audio system (public address), electronic sound recording equipment, electronic data devices (computers or terminals), and other electronic equipment. All necessary drilled or cored openings in the work surfaces to accommodate cabling shall be fitted with grommets, sized to the opening for wire management. Electronic equipment shall be provided by tenant agencies.

Judges' Chambers (Except Private Toilets), Circuit Court Conference Rooms, and Robing Rooms.

Walls:

- AWI premium-grade hardwood veneer panelling and/or wainscot, stained and finished with a transparent sealer. The technique of using "bookmatched" panels should be limited to small areas of highlighting and not for overall rooms or systems, and only where walls will remain exposed.
- The upper wall surface over a partial-height wainscot shall be finished with Type II vinyl wallcovering, fabric wallcovering, or paint.
- Decor and detail treatment to be compatible with the overall architectural characteristics of the building.
- Acoustical treatment, detailing, or material as required to meet NC.

Walls (All Other Spaces Except Closets and Storage):

- Gypsum wallboard over metal stud construction, finished with Type II vinyl wallcovering.
- Acoustical treatment, detailing, or material as required to meet NC.

Walls (Closets and Storage):

- AWI premium-grade hardwood veneer solid-core doors and solid hardwood door jambs, stops, and casings, stained and finished with a transparent sealer.
- Gypsum wallboard over metal studs, finished with paint.
- Decor and detail treatment to be compatible with the overall architectural characteristics of the building.

Bases (Judges' Chambers, Conference Rooms, Robing Rooms, Secretary/Reception):

- AWI premium-grade solid hardwood, stained and finished with a transparent sealer.

Bases (All Other Spaces):

- 100 mm high vinyl cove base.

Doors and Frames:

- AWI premium-grade hardwood veneer solid-core door and solid hardwood door jambs, stops, and casings, stained and finished with a transparent sealer.
- Decor or detail treatment to be compatible with the overall architectural design characteristics of the building.

Trim and Moldings:

- AWI premium-grade solid hardwood decorative moldings, as dictated by the design or existing building decor conditions. Items include, but are not limited to, base, chair rail, crown, panel molds, and other moldings as required.
- Decor and detail treatment to be compatible with the overall architectural characteristics of the building.

Ceilings:

- Suspended acoustical tile and/or gypsum wallboard finishes, as dictated by the design or existing building decor conditions. Other ceiling elements, such as soffits, perimeter coves, recesses, and reveals, shall be provided as required to integrate HVAC and lighting into a harmonious design.
- Decor and detail treatment to be compatible with the overall architectural characteristics of the building.
- Acoustical treatment, material, or detail as required to meet NC.

Floorcoverings (Except Storage and Service Units):

- 1 400 grams per square meter face weight synthetic (nylon or equal) commercial-grade carpet over a synthetic fiber pad.

Floorcoverings (Storage and Service Units):

- Vinyl-composition tile or sheet-vinyl flooring.

Bookshelves (Judges' Chambers):

- AWI premium-grade hardwood veneer adjustable shelves and casework, stained and finished with a transparent sealer. Standard case unit to be 250 mm deep by 750 mm wide by 2 000 mm high. Limit shelf spans to 750 mm. The technique of "bookmatching" should not be used.

Bookshelves (Library Conference):

- All AWI custom-grade hardwood veneer adjustable shelves and casework, stained and finished with a transparent sealer. Standard case unit to be 250 mm deep by 750 mm wide (maximum) by 2000 mm high. Limit shelf spans to 750 mm. The technique of "bookmatching" should not be used.

Lockers (Robing Rooms):

- AWI custom-grade hardwood veneer casework with solid hardwood doors and frames, stained and finished with a transparent sealer. Hardware to be adjustable concealed hinges. Individual lockers shall be full-height lockers 300 mm wide by 300 mm deep by 1 800 mm high, with one shelf and a coat rod.

Judges' Private Toilets.

Walls:

- Gypsum wallboard on metal stud construction, finished with Type II vinyl wallcovering.

Bases:

- 100 mm high ceramic tile base with sanitary cove installed with thin-set mastic.

Floors:

- Ceramic tile floor installed with thin-set mastic.

Ceilings:

- Gypsum wallboard with a paint finish.

Vanity Cabinets:

- AWI custom-grade hardwood veneer panels, solid hardwood doors, and solid hardwood door and cabinet frames. Dimensions of vanity cabinet to be a minimum 900 mm wide by 500 mm deep by 750 mm high (finished height). Countertop to be cultured marble (epoxy resin) with an integrated lavatory bowl and 100 mm high backsplashes along all wall surfaces.

Mirrors:

- Above and aligned with the vanity cabinet, provide and install a 6 mm thick by 900 mm by 1 200 mm high polished plate mirror with ground edges.

Medicine Cabinets:

- Provide and install within the wall adjacent and at a right angle to the vanity cabinet, a recessed medicine cabinet. Medicine cabinet shall be a standard manufactured item with a mirrored door/stainless steel frame and white enameled cabinet with adjustable glass shelves.

Service Units (Judges):

- A residential counter-type service unit 1800 mm long with AWI custom-grade hardwood veneer cabinets (base and wall cabinets), with a decorative plastic laminate countertop, 18-gage brushed stainless steel sink and single-lever faucet, located within a centrally convenient area of the office suite.

Standard Level Finishes for Spaces of Other Agencies and Personal Offices of Agency Heads. Personal offices for agency heads include the Clerk of the Court, U.S. Attorney, U.S. Marshal, Circuit Executive, District Executive, and Court Librarian. Personal office space for these positions may be provided with the highest quality level finishes noted on the standard

finish table in PBS-PQ100.1 and this document. Levels beyond this can be provided, but must be reimbursed by the requesting agency. General office areas, toilets, pantries and other spaces assigned to these agencies are to be finished according to the requirements contained in PBS-PQ100.1. Specific requirements for the personal offices of agency heads include:

Walls:

- Gypsum wallboard on metal stud construction, finished with Type II vinyl wallcovering.

Doors and Frames:

- AWI custom-grade hardwood veneer solid-core doors. Door frames to be either solid hardwood jambs, door stops, and casings, or hollow metal, as dictated by the design or existing building decor condition.

Bases:

- 100 mm high coved vinyl base, typical throughout (unless dictated by either design or existing building decor conditions).

Floors:

- 1 300 grams per square meter face weight synthetic (nylon or equal), commercial-grade carpet or carpet tiles.
- Suspended acoustical tile and/or gypsum wallboard finishes, as dictated by the design or existing building decor conditions. Other ceiling elements, such as soffits, perimeter coves, recesses, and reveals, shall be provided as required to integrate HVAC and lighting into a harmonious design.

Selection of Materials and Finishes for Interior Public Spaces. Finishes provided in interior public spaces should be an extension of the exterior. Similarly, elevator lobbies on each floor in a U.S. Court facility should be considered an extension of the main public lobby spaces. Please refer to PBS-PQ100.1. In general terms, all areas and corridors connecting the public entry vestibule and lobby on the primary entry level to all courtroom entry points should be provided at a quality level equivalent to the public lobbies and elevator lobbies.

Similarly, for floors currently not housing courts, but designated for court occupancy in the 30-year plan, elevator lobbies should be designed with the same physical structure and dimensions so equivalent finish levels can be added at later date.

Public corridors connecting other office areas and the elevator lobbies will be at GSA standard as described in PBS-PQ100.1.

Miscellaneous Fixtures, Furnishings, and Equipment. Federal agencies are responsible for equipment, furniture, and fixtures which are not "fixed" to the real property, while GSA is responsible for providing most "fixed" improvements to tenant spaces. In general, "fixed improvements" built and owned by GSA can be defined as including improvements that are "attached to the building," such as counters, benches, etc.

Courtroom Millwork and Furnishings:

- GSA includes allowances in budget for all court millwork and benches. The only chairs provided by GSA in the baseline user charges would be jury chairs, which are essentially "fixed improvements," typically installed with a fixed base.

Special Dining:

- The U.S. Courts must provide furniture for judicial and jury dining.

Clock Systems:

- GSA generally does not install building-wide clock systems. Tenants are responsible for providing any clock systems, but GSA will provide wall outlets for clocks.

Audio Equipment in Conference Areas and "Special" Rooms:

- Audio equipment and presentation boards are not provided by the GSA. Built-in screens will be provided by GSA.

Signage:

- The building signage system will be provided by GSA. The selected signage system must allow updating. Signage within the tenant assignable areas will be the responsibility of the individual tenant agencies.

Artwork. GSA has an Art-In-Architecture program that commissions work designed specifically for public areas or a building. Any other artwork is provided by tenant agencies.

Interior Plantings. Any plant materials must be provided and maintained by tenant agencies.

Acoustical Planning for U.S. Courts. Physical improvements for acoustic treatments (including gasketing, etc.) will be provided by GSA and included in the baseline user charges. In acoustically designed spaces, durable materials should be used at points where routine use would damage, discolor, or soil materials, such as in areas at headrest locations behind jury chairs, similar areas in spectator seating areas, and at electrical switchplate locations. HVAC equipment for courtrooms, jury rooms, and chambers will not be located in close proximity to these rooms. Fan-powered boxes and air-handling units (AHU's) should not be located in close proximity to acoustically designed rooms. Please refer to PBS-PQ100.1 criteria for theaters and auditoriums for maximum duct velocity. Where ducts penetrate acoustically rated walls, duct and wall systems should be designed to maintain acoustic integrity.

There is possible electronic interference between electronic ballasts and security and other equipment. The designer will provide analysis of system designs and equipment specifications.

Since the design and location of speech-reinforcement systems must be considered in the design of the structure and architectural finishes in courtrooms, GSA will provide the basic microphone/speech-reinforcement systems for courtrooms as part of the baseline annual user charges. This basic system shall include the microphones, speakers, and amplifiers for speech reinforcement in the courtroom. GSA will continue to provide conduit for the additional electrical and electronic wiring that may be installed by the U.S. Courts. However, the U.S. Courts will be responsible for providing system equipment and wiring for any options, such as for the court-recording features that are incorporated into the basic speech-reinforcement system. The designer must coordinate with the AOC to assure that the speech-reinforcement system will be compatible with the U.S. Court-provided equipment.

Building Envelope. The baseline for exterior facade materials is stone, brick, or similar material for U.S. courthouses. See window requirements in PBS-PQ100.1. As part of the standard special space provisions, provide vehicular sallyport doors to meet USMS specifications.

Changes in Building Envelope to Meet Energy Guidelines. Due to the energy load requirements of U.S. Court facilities, GSA will use the alternative design processes of ASHRAE 90 to meet Federal energy guidelines for overall building energy usage. Increases in building system energy resistance will be used to compensate for higher load requirements resulting from court functions.

GSA will establish total building energy usage according to calculations using factors contained in PBS-PQ100.1. To demonstrate the same total energy usage, a new calculation will be done incorporating factors for energy reduction strategies to offset increased lighting, cooling, and heating energy loads.

Engineering System Requirements

Design of Environmental Conditions Within "Special" Spaces. GSA will provide HVAC systems designed to cool courtrooms, judge's chamber suites, and jury deliberation suites to 24 °C (75 °F) with full load in summertime. The actual operating will be set for the locally determined comfort level. In addition, the courtroom will be connected to a building automation system so that the room can be precooled prior to scheduled occupancy down to 21 °C (70 °F). Jury deliberation rooms, courtrooms, and judges' chambers will be treated as "conference rooms" (i.e. as an independent zone with separate controls). The courtroom, judge's chamber suite, and the jury deliberation room, which comprise a single "court set," shall be arranged such that the air side of the systems can be run after hours without turning on a majority of the building system. GSA may use zoning controls to provide this level of service in the event an AHU is designed to serve two or three court sets. GSA will include winter humidification in areas and regions specified in PBS-PQ100.1. Special controls for summertime dehumidification will not be included since modern HVAC systems are designed to keep relative humidity within acceptable ranges. The USMS area will have 24-hour service, with a separate AHU. Please refer to the description of the area-of-refuge contained in this document.

Central HVAC Plant Design. GSA considers all central HVAC plant equipment and systems to be included within the baseline. To allow flexible and efficient use of HVAC systems for "after-hours" use in a U.S. Court facility, the central plant equipment (chillers, boilers, pumps, etc.) will be designed using a combination of sizes of chillers and boilers to provide heating/cooling to various numbers and sizes of zones. GSA will provide connections to the building automation system with "sub"-metering to allow the facility manager to track HVAC system use and allocate costs to user agencies for beyond-standard hours-of-operation use.

Plumbing System Design. GSA includes all costs for system design, installation, and permanently mounted fixtures within baseline, if fixtures are provided per PBS-PQ100.1 criteria. Mechanical and electrical requirements for "special areas," such as service units outside of judges' suites, are included in the "Food Service SP-2" special space classification, or the tenant can choose to provide reimbursement for these items and keep the space classification of the space they are installed in.

Electrical System Design. Electrical distribution: for U.S. Court projects, GSA will provide three 120/208V normal power systems to building areas in lieu of the two shown in PBS-PQ100.1, with the third system being provided for the security systems. The third system will have the same parameters as the two systems prescribed by PBS-PQ100.1.

- Spare capacity: GSA will provide spare capacity as indicated in PBS-PQ100.1.
- Dedicated and clean power circuits: GSA will provide a complete building system of clean power outlets.
- The numbers of outlets will be provided per PBS-PQ100.1 criteria, electrical code, and good practice.

Emergency Service. Emergency power will be provided in U.S. Court buildings as defined in PBS-PQ100.1. The security system described above will also be connected to the emergency system. Generator capacity will be provided per PBS-PQ100.1. Uninterrupted power source (UPS) for equipment such as personal computers or computer rooms will be provided by the tenant.

Lighting Systems. Illumination levels and lighting controls in "special" areas will be provided as defined in the USCDG. In all other areas, illumination levels and lighting controls will be provided as specified in PBS-PQ100.1. GSA will provide courtroom fixtures with accurate color rendition (avoiding metal halide). Guidelines for site illumination are specified in PBS-PQ100.1. Lighting in parking areas will allow for identification of vehicle color (avoiding low pressure sodium). Emergency egress lighting for courtrooms and security areas such as cellblock areas will have built-in batteries as well as emergency generator service. Egress lighting for areas that require battery backup in the event of power failure to maintain camera and direct visual surveillance include:

- Vehicle sallyport.
- Prisoner sallyport and movement corridors.
- Detention cell block areas.
- Communications center.
- Prisoner processing area.
- Prisoner-attorney interview room.
- Court holding cell areas.
- Judges' chambers.

Telephone, Data, Electronic Surveillance, and Security Systems and Equipment.

Federal tenant agencies are responsible for designing, providing, and installing their own telephone, data, electronic surveillance, and security systems and equipment. GSA will provide conduits for all telephone, data, computer, and security systems. The system designs which define and specify conduit size, type and locations must be provided by tenant agencies to GSA and the design architect-engineer in a timely manner during the design development phase of project design. GSA will provide a building communication frame room and communications closets for independent telephone service per PBS-PQ100.1. All other signal or communication space such as for servers or processors for local area networks, will be assignable space with a classification dependant upon tenant requirements. Federal tenant agencies are expected to provide all:

- Computer equipment and connecting wiring (including terminals, UPS, computer workstations, file-servers, computer cabling, and the like);

- Telephone equipment and wiring (including handsets, PBX units, and internal wiring); and
- Security equipment and wiring (including closed-circuit television (CCTV) cameras and monitors, alarm switches, annunciators, motion detection equipment, and so forth). USMS will be responsible for providing duress alarm equipment for the judiciary. GSA will provide electronic devices integral to door hardware.

The following statements clarify standard provisions and responsibility for above-standard provisions.

- The FPMR specifies that GSA provide conduits and ducts for courts' telecommunications (including television cable) requirements, but current standards limit this to not more than one telephone and one data instrument for every 9 square meters of space. Requirements above this level are "above standard," and are to be reimbursed to GSA.
- GSA provides raceways for electronic strikes within USMS detention areas and electronic security locksets. USMS is responsible for specifying electronic hardware. In general, GSA will provide all hardware in the building, including security locking devices in USMS detention areas. USMS is responsible for funding the installation of wiring to electronic strikes and electronic door hardware if/as required. GSA will provide raceways and conduit locations for all systems if identified during the PDS phase. Detailed information for all systems (including system specifications, locations, conduit, and raceway requirements) is required from the tenant agencies in a timely manner to allow coordination with the development of the base building design documents.
- GSA provides the basic building infrastructure for telecommunications wiring with telephone closets, and the vertical and horizontal distribution system for telecommunications and other electronic cables (e.g., chases, underfloor duct, cable trays, raised floors, etc.). Telecommunications equipment and service will be purchased and installed by the tenant agency. Space required for telecommunications systems is assignable to tenant agencies or GSA's Information Resources Management Service.
- GSA will provide a conduit from basement to roof for cable television/master antenna connection to locations listed in the USCDG, but any required cable television or master

antenna equipment must be provided by the tenant agency. GSA will also provide conduit from the USMS area to the roof for radio antenna lead.

Specific Requirements for USMS and GSA's Federal Protective Service (FPS)

Both USMS and FPS provide security at a U.S. Court facility. This section clarifies and adds to the requirements for these agencies contained in the USCDG. USMS is responsible for providing security of the judiciary, courts, and court-related agencies. FPS is responsible for providing security for the building perimeter, service access, and noncourt-related agency space. FPS is also responsible for response to emergencies for the entire building during noncourt operating hours, which may vary on any given day. FPS or an authorized local government law enforcement agency will respond to calls or duress alarms during these periods. USMS is an Executive branch agency and is governed by the FPMR and *Space Allocation Standards*. It is GSA's objective to provide USMS its requirement within the annual user charge to minimize reimbursable work.

GSA will:

- Provide structurally modified detention areas per *Requirements and Specifications for Special Purpose and Support Space*, May 1992 edition, prepared by the USMS Administrative Services Division.
- Provide space per PBS-PQ100.1. The personal office of the U.S. Marshal will be provided with the highest quality finishes noted in the standard finish table in PBS-PQ100.1.
- Construct the USMS as an area-of-refuge for judges, Marshal's staff, and prisoners during fire and other emergencies. Fire-resistive construction systems and space arrangement will be provided in accordance with PBS-PQ100.1 area-of-refuge criteria.
- Construct space, door hardware (manual and electronic), and glazing and physical barriers, including access by local law enforcement where applicable.
- Provide conduit, closets, and raceways for communications, security, and computer systems.

- Provide standard, emergency, backup, clean, and predefined electrical power needs, including battery-powered lights.
- Provide mechanical conditioning of the space.
- Provide fire detection and protection systems, including fire department building access and control.

USMS is responsible for funding or providing all furnishings, office equipment, electronic security hardware remote control devices and wiring, communications systems and wiring, security surveillance and monitoring systems and wiring, computer systems and wiring, UPS required for the various systems, and building unique requirements such as upper floor exterior bullet-resistant glazing.

The design of the facility must consider expansion of USMS areas and security needs for the 30-year plan. Areas designated for future location of holding cells must have adequate floor-loading capacity for detention construction. The routing of HVAC main building supply ductwork should avoid areas where detention or USMS space will be located. Access and placement of secure elevators must be planned for both current and future layouts. As courts are expanded, USMS must have adequate space within the court facility to provide the direct services to the Federal courts.

General Security Requirements

Architectural security in court facilities include:

- Vehicle entry ideally should be four points of entry - if not feasible, three points, but never five.
- Secure judicial parking, and minimizing other vehicles within the facility.
- A single screened entry point to court- and judicial-occupied areas of the facility.
- Separated circulation systems with restricted access control.
- Controlled area-of-refuge for emergency egress.

- Secure perimeter around prisoner occupied areas.
- Break- and bullet-resistant glazing and barriers at high-risk exposure areas.

Separation of Vehicle Entry. Three separate circulation control and parking facilities are required within the Federal court facility. These include: (1) judicial vehicles and court employees; (2) detention vehicle sallyport; and (3) service.

Separate Parking. Separate secure parking and entry are to be provided for the judges and certain staff. Entry into the judicial secure parking will be monitored by a court security officer (CSO) to prevent unauthorized entry. A judicial elevator leading from the judicial parking to judicial chamber areas of the building with a personal identification number (PIN) keypad, key or card-reader access control will be provided. CCTV monitors will be provided by USMS.

The design of parking areas should provide ample space for larger vehicles and adequate turning radii for these vehicles to avoid damage.

The number of vehicles parking within the Federal court facilities will be restricted to minimize security risk. Parking within the building will usually be provided for judges, the U.S. Attorney, some court employees, and official vehicles used by USMS and other agencies for emergency and law enforcement purposes, such as prisoner movement, juror movement, and protected witness movement. Employee parking in general will be assigned according to priorities in the FPMR 101-20.

Secure parking is not required for jurors. Sequestered jurors are transported off-site by USMS.

Employee, visitor, and noncourt parking may be provided at the site, though it should not be located within the court building. FPS is responsible for security at employee and visitor parking, and for security at the service entry. Parking for service vehicles should not be located under the building structure, but within an extension if needed.

One Screened Building Entry Point. One screened point of entry for pedestrians is to be provided for court- and judicial-occupied areas of the facility. All public and court employee

entrance to court-related areas of the building will be through one entry point under the direct surveillance of USMS personnel. Entry to the building from court employee parking should be through shuttle elevators (and stairs) to a point outside of the screened entry point. Areas of the facility occupied by noncourt-related agencies may either be routed through the screened entry point or diverted to other entry points.

A second entry point may be desired for some Federal agencies, such as the Immigration and Naturalization Service or the Social Security Administration, which receive a large number of public visitors. Ideally, these agencies would not be located within the same building as court functions. A clear separation of zones must be provided within the building if a second entry which is not screened by a CSO is provided. All areas designated for future expansion of court and court-related functions must be served through the screened entry point. Ideally, all areas of the facility will pass through the secure screening point to provide flexibility in expansion strategies for the courts.

The screened entry point should be far enough inside the entry to allow for queuing during inclement weather. It should be sized to allow a metal detector and x-ray equipment to be built as part of the circulation out of the entry. Appropriate outlets connected to the security electrical system will be located and sized to avoid exposed cord connections.

GSA will have a single building entry point for the entire service area which will have a remote electrically controlled door lock. Either the facility manager's office will be located next to this door with a vision window or a CCTV camera will be provided with a monitor in the facility manager's office. In either case, a two-way intercom will be provided between the door and the manager's office.

Separate Circulation Systems. A Federal court facility may have four or more internal separate circulation systems serving judicial, court, and court-related areas. The systems include:

- Judicial circulation to the judicial chambers and court rooms.
- Public circulation to the courtrooms and public entrances of court-related agencies.
- Secure prisoner movement system.
- Service circulation, which could also be used for juries.

The integrity of each circulation system must be maintained throughout all functions within the court facility, including dining, service access points and emergency egress. Egress to and within each system will be controlled by direct or remote monitoring, strike releases, card-readers, PIN keypads, or keys and controlling mechanisms. All control and monitoring equipment such as card readers at the building perimeter will be provided by GSA as part of the base building provisions under the responsibility of FPS. Control and monitoring equipment within the building will be the responsibility of USMS.

Circulation for judges to the private dining facility, if programmed, must provide access to the judicial dining area directly from the judicial circulation system. Freight elevators should be designed with large enough cabs and located to accommodate movement of juries of up to 25 people as 1 group. They should provide access to the jury dining facilities from the trial jury suites. They may need cab doors on opposite sides to serve both public and secure corridor systems, with access by prioritized magnetic cards or electronic keypads.

Secure Areas-of-Refuge. The security protection system must be designed to prevent the use of emergency situations as a means to subvert the security of the judiciary. As part of the integrated secure zoning and circulation system, a secure area-of-refuge is required for protection of the judiciary during emergencies. The USMS area within the building should be designated as an area-of-refuge for the judiciary. Locating the area-of-refuge within the USMS area will allow USMS to maintain responsibility for the security of the judiciary. In the event of an emergency, the judges can convene in the USMS area. At that point, USMS may determine if evacuation of the building is required, and provide protection to the judiciary as they exit the building. Construction features and building systems within this area must comply with standards and codes established for areas-of-refuge as contained in PBS-PQ100.1. Judicial and prisoner elevator systems will recall to the area-of-refuge in event of an emergency.

As an alternative in unusual configurations, this secure area may be the judges' parking area. In high-rise buildings (over 10-12 stories), additional secure areas-of-refuge may have to be added every 6-10 floors above the lower areas-of-refuge.

The central cellblock will be designated as an area-of-refuge for prisoners. In the event of an emergency, all prisoners will be brought from the court and court holding areas to the USMS central detention cellblock via the secure prisoner circulation system. The prisoner circulation

system will comprise prisoner sallyports, prisoner corridors, prisoner elevators, and prisoner stairwells. Evacuations from the building will be under USMS custody through the secure detention vehicle sallyport.

Where the building egress requires more than two building stairwell systems, which may be the case for an alternate egress from a place of assembly such as a courtroom, locate the additional stair in the secure corridor by the courtroom. If this stair can be located by the secure area between courtrooms and the floor-to-floor height is sufficient, it can be made a scissors stair with a divided area for prisoners and U.S. Marshals without any increase in gross floor area.

Secure Perimeter Around Prisoner-Occupied Areas. A secure perimeter system should surround the USMS central detention cellblock area and the courtroom holding cell areas. All egress points through the secure perimeter should be controlled by sallyports with interlocked doors and monitored by USMS staff. All horizontal plans comprising the perimeter, including partitions, floors, ceiling systems, and fenestration points, must be designed to thwart unauthorized egress. Construction should consist of core-filled CMU glazed block or equivalent construction extending from floor to structural deck above, barriers in all chases, vents and fenestration openings, and detention-grade hardware and bullet- or break-resistant glazing. All hardware within the secure perimeter will be on a special detention key system.

Bullet- and Break-Resistant Glazing and Shielding. Bullet- and break-resistant glazing and shielding are required at specific points throughout the facility to enhance security. For areas exposed to attack from outside the weapons screened area, bullet-resistant glazing should be utilized. For control within the facility, break-resistant glazing should be utilized. The following are specific areas where protective glazing and shielding are required:

- Bullet-resistant glazing is required for exterior windows into all courtroom and judges' chambers located on the ground floor or directly adjacent (within 7 m) to parking or walkways.
- Bullet-resistant shielding is required on vertical surfaces of judicial benches.
- Bullet-resistant glazing may be required in high-risk trials within the courtroom between the well and the public seating area.

- Break-resistant glazing is required at the clerk's office public counter. Bullet-resistant glazing is required at the cashier window where security is not present.
- Break-resistant glazing is required at the probation and pretrial public counters.

The design of special protective glazing must take into consideration maintenance and replacement. Protective glazing should be installed in standardized sizes to allow for ease of replacement. Counters where glazing is installed should have bullet- or break-resistant shielding built into modesty panels and side panels to match the glazing.

USMS Designated Areas

Users. The USMS is located within each Federal court facility to provide judicial protection and safely transport and produce prisoners. In those facilities that contain U.S. district or magistrate courts, USMS maintains appropriate office, support, and detention space to transport, process and control prisoners. At locations where only courts of appeal or bankruptcy courts are housed, no detention space will be provided and only court security offices will be required. Areas within the facility designated for USMS occupancies include:

- Secure public reception area.
- Administrative and clerical area.
- Operation squad rooms, including the warrants unit, the seized asset unit, and the general operations unit located next to the central detention cellblock area.
- Communications center.
- Central detention cellblock.
- Courtroom holding cells.
- Court security office.
- Witness security office.

- Circuit court inspector office area.

Accessibility. The administrative office areas, operational squad rooms, communications center, and central detention cellblock comprising a USMS district office or suboffice should be located in contiguous space. These components should be located on or above the ground floor or directly below the designated court floors to respond to emergency situations or to provide direct egress to and from the area-of-refuge for the protection of the judiciary. Office areas should have access to natural light.

The central detention cellblock should have direct service via secure detention elevators to the USMS vehicle sallyport and courtroom holding cell areas on other floors. The route between these three areas should be direct or connected by detention corridors. The central detention cellblock should be located adjacent to the communications center and the general operations squad room to monitor and control prisoner activity. The exact location of the central detention cellblock within the facility will be determined by a weight load survey and may require structural reinforcement.

The courtroom holding cells areas should be located directly adjacent to courtrooms and serviced by prisoner elevators. Ideally, two courtrooms should be served by a holding area comprising two small courtroom holding cells and a mutual prisoner sallyport which connects directly to the courtrooms with no intervening spaces.

The administrative office area should be located contiguous to the public reception area, the general operations squad room, and the central detention cellblock area. The public reception area should be a secure vestibule separated from the USMS administrative office area by partitions, counters, security glass, and doors and should restrict access to USMS office, operational, and detention space. This space should be accessible directly from the public lobbies or public corridors.

Witness security offices within courthouse facilities should be located in windowless interior space and segregated from the public traffic. These offices should not be located at the ground floor or the top floor.

Court security offices should be located adjacent to the building public lobby security check point or adjacent to USMS operational space.

Court security inspectors' offices do not require location adjacent to or contiguous to USMS space with U.S. Court facilities. These offices are located to support U.S. Courts within an entire court circuit.

Specific Design Requirements. The following information clarifies information contained within the USCDG, specifically Chapter 10. In addition, please refer to *Requirements and Specifications for Special Purpose and Support Space*, May 1992 edition, prepared by the USMS Administrative Service Division for specific specifications of security equipment required in the USMS area.

Administrative and Clerical Areas. The administrative and clerical areas assigned to USMS will be constructed in accordance to standards and regulations contained in the FPMR and PBS-PQ100.1. The U.S. Marshal will be provided the highest quality finished identified for office space in this document and PBS-PQ100.1. Upgrades requested for this office beyond those specified in the FPMR and PBS-PQ100.1 will be provided on a reimbursable basis.

Construction Requirements for Structurally Modified Detention Areas (SP-3A). The construction requirements for cell, sallyport, processing, and prisoner-side of secure interview room spaces used to detain prisoners within Federal courthouses are provided in the *Requirements and Specifications for Special Purpose and Support Space*.

Sprinkler heads should not be placed within the detention cells. Detention-type sprinkler heads should be placed strategically within detention sallyports or prisoner corridors.

All detention space is controlled and monitored by U.S. Marshals. There are to be no "panic bars" or door releases inside detention space. If an emergency develops, prisoners are put under physical controls or restraints, and removed from the facility.

Detention cell security requirements should not be compromised to meet accessibility requirements. If USMS takes into custody a physically handicapped person, USMS can elect not to place the individual into a general population cell. The detainee will be placed into the custody of a deputy and taken to appropriately equipped facilities within the building. Detention space and all equipment and fixtures are specified for short-term maximum security requirements. Equipment should not be installed that could be utilized to harm prisoners or deputies.

Specific Requirements for GSA Support Areas

The GSA building support areas will be provided per PBS-PQ100.1, except for a secure refuse bay and mail parcel inspection room. The PDS will define the building shipping/receiving area requirement needs. PBS-PQ100.1 provides criteria for lockers, storage, and other requirements of GSA spaces. The PDS will define any other tenant agency central storage requirements which may be located near GSA support areas.