NOTICE: This standard has either been superseded and replaced by a new version or withdrawn.
Contact ASTM International (www.astm.org) for the latest information

Designation: E1693 – 95 (Reapproved 2005)

An American National Standard

Standard Classification for Serviceability of an Office Facility for Protection of Occupant Assets[1, 2]

This standard is issued under the fixed designation E1693; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This classification covers pairs of scales for classifying an aspect of the serviceability of an office facility, that is, the capability of an office facility to meet certain possible requirements to protect occupant assets.

1.2 Each pair of scales, shown in Figs. 1-8, printed side by side on a page, are for classifying one topic of serviceability within that aspect of serviceability. Each paragraph in an Occupant Requirement Scale (see Figs. 1-8) summarizes one level of serviceability on that topic that occupants might require. The matching entry in the Facility Rating Scale (see Figs. 1-8) is a translation of the requirement into a description of certain features of a facility that, taken in combination, indicate that the facility is likely to meet that level of required serviceability.

1.3 The entries in the Facility Rating Scale (see Figs. 1-8) are indicative and not comprehensive. They are for quick scanning, to estimate approximately, rapidly, and economically, how well an office facility is likely to meet the needs of one or another type of occupant group over time. The entries are not for measuring, knowing, and evaluating how an office facility is performing.

1.4 This classification can be used to estimate the level of serviceability of an existing facility. It can also be used to estimate the serviceability of a facility that has been planned but not yet built, such as one for which single-line drawings and outline specifications have been prepared.

1.5 This classification indicates what would cause a facility to be rated at a certain level of serviceability, but it does not state how to conduct a serviceability rating nor how to assign a serviceability score. That information is found in Practice E1334. The scales in this classification are complementary to and compatible with Practice E1334. Each requires the other.

2. Referenced Documents

2.1 *ASTM Standards:*[3]

E631 Terminology of Building Constructions

E1334 Practice for Rating the Serviceability of a Building or Building-Related Facility

E1679 Practice for Setting the Requirements for the Serviceability of a Building or Building-Related Facility

2.2 *ISO Documents.*[4]

ISO 6240 International Standard, Performance Standards in Building—Contents and Presentation

ISO/DIS 7162 Draft International Standard, Performance Standards in Building—Contents and Format of Standards for Evaluation of Performance

ISO/DIS 7164 Draft International Standard, Performance Standards in Building—Definitions and Means of Expression for the Performance of a Whole Building

3. Terminology

3.1 *Definitions:* For standard definitions of terms applicable to this classification, see Terminology E631.

3.1.1 *facility*, *n*—a physical setting used to serve a specific purpose. **(E631)**

3.1.1.1 *Discussion*—A facility may be within a building, or a whole building, or a building with its site and surrounding environment; or it may be a construction that is not a building. The term encompasses both the physical object and its use.

3.1.2 *facility serviceability*—the capability of a facility to perform the function(s) for which it is designed, used, or required to be used. **(E631)**

3.1.2.1 *Discussion*—The scope of this performance is of the facility as a system, including its subsystems, components, and materials and their interactions, such as acoustical, hydrothermal, air purity, and economic; and of the relative importance of each performance requirement.

3.1.3 *office*—a place, such as a room, suite, or building, in which business, clerical, or professional activities are conducted. **(E631)**

[1] This classification is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.25 on Whole Buildings and Facilities.

Current edition approved May 1, 2005. Published May 2005. Originally approved in 1995. Last previous editiona pproved in E1693 – 95 (1999). DOI: 10.1520/E1693-95R05.

[2] Portions of this document are based on material originally prepared by the International Centre for Facilities (ICF) and © 1993 by ICF and Minister of Public Works and Government Services Canada. Their cooperation in the development of this standard is acknowledged.

[3] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

Copyright © ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States.

Full document details: ASTM E1693-95(2005)

A.8. Protection of Occupant Assets

Scale A.8.1. Control of access from building public zone to Occupant reception zone

Occupant Requirement Scale		Facility Rating Scale
9 ❑ ○ **CONTROL OF STAFF AND VISITOR ENTRY**: Operations require maximum control over staff and visitors entering occupant premises, including occupant reception zone, at all times, and complete absence of intrusions. All visitors entering occupant reception zone must be identified and accompanied in reception and operations zones. ○ **CONTROL OF MAIL AND DELIVERIES**: Mail, courier and parcel delivery personnel must not have access to operations zone of occupant premises, and may only enter occupant reception zone when admitted by a receptionist or security guard.	8 ❑	9 ❑ ○ **Staffing of entry control station**: Entry control station in building lobby is staffed 24 hours. ○ **Control of elevators**: Entry control staff have control of movement of elevators during silent hours. ○ **TV monitoring**: All entrances and all elevator lobbies on office floors can be monitored on TV from building entry control station, by security personnel. ○ **Control of deliveries**: Mail sorting and mailboxes or places for occupant pick-up are in secure rooms. Parcels are delivered to entry control station, whose personnel inform occupants or mailroom staff by telephone. ○ **Entry to reception zone**: The reception zone is separated from the public zone by a solid wall to the slab above, and from the operational zone by a high-security wall to the slab above. Entry from the public access zone to the reception zone can be controlled at all times, and closed if a staff member is not present.
7 ❑ ○ **CONTROL OF STAFF AND VISITOR ENTRY**: Operations require special control over staff and visitors entering occupant reception zone, and complete absence of intrusions. ○ **CONTROL OF MAIL AND DELIVERIES**: Mail, courier and parcel delivery personnel must not have access to operations zone of occupant premises, and may only enter occupant reception zone when a member of occupant staff or a security guard is present.	6 ❑	7 ❑ ○ **Staffing of entry control station**: Entry control station in building lobby is staffed during transition and silent hours. ○ **Control of elevators**: Entry control staff have view of elevator lobby on main floor, and of display panel indicating elevator travel. ○ **TV monitoring**: TV monitoring of all entrances and surrounding areas, and indoor parking access from entry control station. ○ **Control of deliveries**: Mail sorting and parcel delivery have secure, locked holding rooms within view of entry control station, or TV monitoring to control station. ○ **Entry to reception zone**: The reception zone is separated from the public access zone and from the operational zone by a wall to the slab above. Entry from the public access zone to the reception zone can be controlled at all times, and closed if a staff member is not present.
5 ❑ ○ **CONTROL OF STAFF AND VISITOR ENTRY**: Operations require that at all times when the premises are not locked, entry of staff and visitors to the reception zone of occupant premises is observed, persons entering the operations zone are challenged, and there must be no unauthorized intrusions. ○ **CONTROL OF MAIL AND DELIVERIES**: Mail, courier or parcel delivery personnel must not have access to the operations zone of occupant premises.	4 ❑	5 ❑ ○ **Staffing of entry control station**: Entry control station is staffed during transition hours only. Each occupant controls visitors at their own reception. ○ **Control of elevators**: One elevator is kept in automatic operation for occupants in silent hours. ○ **TV monitoring**: Entry control station can monitor on TV the outside of the front entrance doors, unless the entry area outside the building is directly visible. ○ **Control of deliveries**: Mail sorting room off loading dock has postal key. Adjacent mail pick-up room requires occupant key. ○ **Entry to reception zone**: Reception zone is separated from the public access zone by a wall to the ceiling, not to slab above. The wall may include large windows, and doors which are normally open during working hours.

Scale A.8.1. continued on next page

FIG. 1 Scale A.8.1 for Control of Access from Building Public Zone to Occupant Reception Zone

AVA Documents
Document Sharing Hub

Full document details: ASTM E1693-95(2005)

A.8. Protection of Occupant Assets

Scale A.8.1. Control of access from building public zone to Occupant reception zone (continued)

Occupant Requirement Scale		Facility Rating Scale
3 ❑ ❍ **CONTROL OF STAFF AND VISITOR ENTRY**: Operations require that during transition hours, entry of staff and visitors to occupant premises is controlled, persons entering are challenged, and there must be no intrusions. ❍ **CONTROL OF MAIL AND DELIVERIES**: Mail delivery personnel must not have access to the operations zone of occupant premises.	2 ❑	3 ❑ ❍ **Staffing of entry control station**: No staffed entry control station. Entry from public access zone is locked during transition and silent hours. ❍ **Control of elevators**: There is no special control of elevators during transition or silent hours. ❍ **TV monitoring**: There is no TV monitoring. ❍ **Control of deliveries**: Mail room off lobby has postal key. ❍ **Entry to reception zone**: A reception zone is provided where visitors wait for service. It is not physically separate from the public access zone.
1 ❑ ❍ **CONTROL OF STAFF AND VISITOR ENTRY**: There is no requirement at this level. ❍ **CONTROL OF MAIL AND DELIVERIES**: There is no requirement at this level.		1 ❑ ❍ **Staffing of entry control station**: There is no entry control station. ❍ **Control of elevators**: There is no control of elevator use. ❍ **TV monitoring**: There is no TV monitoring. ❍ **Control of deliveries**: There is no control of deliveries. ❍ **Entry to reception zone**: No clear definition or boundaries between public access areas and work areas.

❑ Exceptionally important. ❑ Important. ❑ Minor Importance.	
Minimum Threshold level =	❑ NA ❑ NR ❑ Zero ❑ DP

NOTES *Space for handwritten notes on Requirements or Ratings*

FIG. 1 Scale A.8.1 for Control of Access from Building Public Zone to Occupant Reception Zone *(continued)*

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *hours of operation*:

3.2.1.1 *active hours*—the time during which a facility is normally fully occupied and operational.

3.2.1.2 *normal working hours*—the time during the day when staff are normally at work, starting with the normal arrival in the morning of the first staff and ending with the normal departure time of the last staff. This excludes the time of an evening or night shift, the time when staff are working later than normal, weekends, and legal holidays.

3.2.1.3 *silent hours*—the period when a facility is essentially unoccupied, although security, cleaning, and building operations staff may be present.

3.2.1.4 *transitional hours*—the time during the morning after the first workers normally arrive until a facility is fully operational, and during the evening from the end of normal work until the normal workers have left, although security, cleaning, and building operations staff may be present.

3.2.2 *security functions*:

3.2.2.1 *detection*—devices and methods such as guards, alarms and access control, and monitoring systems, designed to indicate, and possibly verify, attempted or actual unauthorized access.

3.2.2.2 *protection*—physical and psychological barriers that will delay or deter someone attempting unauthorized access.

3.2.2.3 *response*—reactions to attempted or actual unauthorized access, such as the involvement of a guard or police forces, damage assessments, and remedial measures to forestall the repetition of a security breach.

3.2.3 *zones of physical security*:

3.2.3.1 *high-security zone*—an area that is monitored continuously and where access is limited to authorized personnel.

3.2.3.2 *occupant zone*—the occupant's premises, which includes all of the zones listed below. It may be the same as the occupied area if that does not include any public access zone.

3.2.3.3 *operations zone*—an area to which access is limited to employees and visitors with a legitimate reason for being there.

AVA Documents
Document Sharing Hub

Full document details: ASTM E1693-95(2005)

A.8. Protection of Occupant Assets

Scale A.8.2. Interior zones of security

Occupant Requirement Scale		Facility Rating Scale
9 ❑ ❍ **CONTROL OF ENTRY TO OPERATIONS ZONE**: Operations require maximum protection for assets and information, including secure barriers between each zone of security. Entry to the operations zone must be controlled at all times. ❍ **CONTROL OF ENTRY TO SECURE ZONE**: The secure zone requires exceptional protection, special control of entry from the operations zone, and no access from the reception zone or public access zone.	8 ❑	9 ❑ ❍ **Operational zone**: Persons can enter or leave the operational zone only through secure doors, either through the reception zone when it is staffed, or, through a security checkpoint that can be sealed whenever a security officer is not present. The operational zone is separated from the reception zone and from the public zone by a high-security wall to the slab above. Any ducts that traverse the separation have security barriers and sound baffles. ❍ **Secure zone**: Persons can enter or leave the secure zone only via the operational zone, through secure doors. The secure zone is separated from the operational zone by a high-security wall to the slab above. The secure zone does not abut the reception or public zones. Any ducts that traverse the separation have security barriers and sound baffles.
7 ❑ ❍ **CONTROL OF ENTRY TO OPERATIONS ZONE**: Operations require special protection for assets and information. Physical barriers, such as secure doors, are required to assist staff in controlling entry to the operations zone, and to the secure zone. ❍ **CONTROL OF ENTRY TO SECURE ZONE**: The secure zone must only be accessible through the operations zone, and not directly from the reception or public access zones.	6 ❑	7 ❑ ❍ **Operational zone**: Persons can enter or leave the operational zone only through secure doors or other physical means of control, or through the reception zone when it is staffed. The operational zone is separated from the reception zone and from the public zone by a solid wall to the slab above. ❍ **Secure zone**: Persons can enter or leave the secure zone only via the operational zone, through secure doors. The secure zone is separated from the operational zone by a solid wall to the slab above.
5 ❑ ❍ **CONTROL OF ENTRY TO OPERATIONS ZONE**: Operations require basic protection for assets and information. A special level of security is not required. The operations zone must be visibly separated from the public access zone, so that visitors are in no doubt about where they may and may not go; and this may be done informally using furniture such as counters, desks or screens, together with signs. ❍ **CONTROL OF ENTRY TO SECURE ZONE**: If a secure zone is required, it must be protected as necessary to compensate for the informal control over access to the operations zone.	4 ❑	5 ❑ ❍ **Operational zone**: The separation between the operational zone and the reception zone may be defined by a counter or desk, or by furniture screens with appropriate signage. ❍ **Secure zone**: Persons can enter or leave the secure zone only via the operational zone, or through doors that can be secured by key, combination lock or access control card. The secure zone is separated from the operational zone by a solid wall to the slab above.
3 ❑ ❍ **CONTROL OF ENTRY TO OPERATIONS ZONE**: Operations require minimum protection for assets and information by defining reception and operations zones, but without secure boundaries.	2 ❑	3 ❑ ❍ **Operational zone**: Persons can go direct from either the reception zone or the public access zone, or both, into the operational zone, without being stopped by screens or barriers or walls. ❍ **Secure zone**: Persons can enter the secure zone direct from the public access zone or from the reception zone through a door that can be locked, or from the operational zone without passing through a door that can be locked.

Scale A.8.2. continued on next page

FIG. 2 Scale A.8.2 for Interior Zones of Security

AVA Documents
Document Sharing Hub

Full document details: ASTM E1693-95(2005)

A.8. Protection of Occupant Assets

Scale A.8.2. Interior zones of security (continued)

Occupant Requirement Scale	Facility Rating Scale
1 ❑ ❍ CONTROL OF ENTRY TO OPERATIONS ZONE: There is no requirement at this level. ❍ CONTROL OF ENTRY TO SECURE ZONE: There is no requirement at this level.	1 ❑ ❍ Operational zone: No clear definition or boundaries between public access or reception areas and work areas. ❍ Secure zone: Boundaries separating the secure zone from one of the other zones are not secure.

❑ Exceptionally important. ❑ Important. ❑ Minor Importance.	
Minimum Threshold level =	❑ NA ❑ NR ❑ Zero ❑ DP

NOTES *Space for handwritten notes on Requirements or Ratings*

FIG. 2 Scale A.8.2 for Interior Zones of Security *(continued)*

3.2.3.4 *public access zone*—that area to which the public has free access. These are normally the grounds of a facility and the public corridors in multi-tenant buildings.

3.2.3.5 *reception zone*—an area to which the general public's access can be limited. Access could be limited to specific times of day or for specific reasons.

3.2.3.6 *secure zone*—an area that is monitored continuously and where access is controlled. (See Fig. 9.)

4. Significance and Use

4.1 Each facility rating scale in this classification provides a means for estimating the level of serviceability of a building or facility for one topic of serviceability, and for comparing that level against the level of any other building or facility.

4.2 This classification can be used for comparing how well different buildings or facilities meet a particular requirement for serviceability. It is applicable despite differences such as location, structure, mechanical systems, age, and building shape.

4.3 This classification can be used to estimate the amount of variance of serviceability from target or from requirement, for a single office facility, or within a group of office facilities.

4.4 This classification can be used to estimate the following: (*1*) the serviceability of an existing facility for uses other than its present use; (*2*) the serviceability (potential) of a facility that has been planned but not yet built; and (*3*) the serviceability (potential) of a facility for which a remodeling has been planned.

4.5 The use of this classification does not result in building evaluation or diagnosis. Building evaluation or diagnosis generally requires a special expertise in building engineering or technology and the use of instruments, tools, or measurements.

4.6 This classification applies only to facilities that are building constructions or parts thereof. (While this classification may be useful in rating the serviceability of facilities that are not building constructions, such facilities are outside the scope of this classification.)

4.7 This classification is not intended for, and is not suitable for, use for regulatory purposes, nor for fire hazard assessment or fire risk assessment.

5. Basis of Classification

5.1 The scales shown in Figs. 1-8 contain the basis for this classification.

5.2 Instructions for the use of this classification are contained in Practices E1334 and E1679.

6. Keywords

6.1 building; facility; facility occupants; function; office; performance; protection; of assets of building occupants; rating; rating scale; requirements; serviceability; use; vaults (secure rooms); zones of security

AVA Documents
Document Sharing Hub

Full document details: ASTM E1693-95(2005)