



Designation: E1669 – 95a (Reapproved 2018)

Standard Classification for Serviceability of an Office Facility for Location, Access and Wayfinding^{1,2}

This standard is issued under the fixed designation E1669; 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 contains 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 for locating the building and finding the way inside the building.

1.2 Within that aspect of serviceability, each pair of scales, shown in Figs. 1-6, are for classifying one topic of serviceability. Each paragraph in an Occupant Requirement Scale (see Figs. 1-6) summarizes one level of serviceability on that topic, which occupants might require. The matching entry in the Facility Rating Scale (see Figs. 1-6) is a translation of the requirement into a description of certain features of a facility which, 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. 1-6) are indicative and not comprehensive. They are for quick scanning to estimate approximately, quickly, 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, or 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 does not state how to conduct a serviceability rating nor how to assign a serviceability score. That information is found in Practice

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 March 1, 2018. Published March 2018. Originally approved in 1995. Last previous edition approved in 2012 as E1669 – 95a (2012). DOI: 10.1520/E1669-95AR18.

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.

E2334. The scales in this classification are complimentary to and compatible with Practice E2334. Each requires the other.

1.6 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:³

E631 Terminology of Building Constructions

E2334 Practice for Setting an Upper Confidence Bound for a Fraction or Number of Non-Conforming items, or a Rate of Occurrence for Non-Conformities, Using Attribute Data, When There is a Zero Response in the Sample

E1679 Practice for Setting the Requirements for the Serviceability of a Building or Building-Related Facility, and for Determining What Serviceability is Provided or Proposed

2.2 ISO Document:⁴

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

3. Terminology

3.1 Definitions:

3.1.1 *facility*—a physical setting used to serve a specific purpose. E631

3.1.1.1 *Discussion*—A facility may be within a building, 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 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, http://www.ansi.org.

A.14. Location, Access and Wayfinding

Scale A.14.1. Public transportation (urban sites)

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 9 ○ ORIGIN OF STAFF AND VISITORS: Staff and visitors come from all parts of the city or town. ○ PROXIMITY TO TRANSIT ROUTES: The office must be near a major transit centre. ○ FREQUENCY OF VISITORS: There are many visitors each day, e.g. more than 100 members of the public per day. ○ OFFICE HOURS: Office hours are fixed, e.g. no flex-time.</p> <p><input type="checkbox"/> 7 ○ ORIGIN OF STAFF AND VISITORS: Staff and visitors come from most parts of the city or town. ○ PROXIMITY TO TRANSIT ROUTES: The office must be within walking distance of most major transit route(s). ○ FREQUENCY OF VISITORS: There are many visitors each day, e.g. 50 per day. ○ OFFICE HOURS: Office hours are fixed for many staff, e.g. limited flex-time.</p> <p><input type="checkbox"/> 5 ○ ORIGIN OF STAFF AND VISITORS: Staff come from many parts of the city or town. ○ PROXIMITY TO TRANSIT ROUTES: The office must be within walking distance of several major transit routes. ○ FREQUENCY OF VISITORS: There are some visitors each day, e.g. less than 35 per day, a few from homes, but most from work locations. ○ OFFICE HOURS: Flex-time is available to most staff.</p> <p><input type="checkbox"/> 3 ○ ORIGIN OF STAFF AND VISITORS: Staff come from the local community, or a few parts of town. Some staff drive to work. ○ FREQUENCY OF VISITORS: There are a few visitors, and most do not return. Visitors typically come by car or taxi.</p> <p><input type="checkbox"/> 1 ○ ORIGIN OF STAFF AND VISITORS: Staff come from the local community, most within walking distance, or drive to work. ○ FREQUENCY OF VISITORS: There are no visitors, or visitors are rare and tend to come by car or taxi.</p>	<p><input type="checkbox"/> 9 ○ Staff commuting during peak hours: Staff can commute by transit from all parts of the community, with frequent service and express options during peak hours. ○ Distance to transit stops: Transit stops are within two blocks. ○ Visitors use of public transportation during off-peak hours: Transit frequency is 20 minutes or less during off-peak hours.</p> <p><input type="checkbox"/> 7 ○ Staff commuting during peak hours: Staff can commute by transit from all parts of the community with frequent service during peak hours. ○ Distance to transit stops: Transit stops are within close walking distance, e.g. 10 minutes. ○ Visitors use of public transportation during off-peak hours: Visitors can reach the site from homes or offices by transit. Transit frequency is half-hour or less.</p> <p><input type="checkbox"/> 5 ○ Staff commuting during peak hours: Staff can commute by transit from most parts of the community. ○ Distance to transit stops: Transit stops are within walking distance, e.g. 15 minutes. ○ Visitors use of public transportation during off-peak hours: Visitors can reach the site from homes or offices by transit, but service is not convenient. Transit frequency is longer than half-hour intervals.</p> <p><input type="checkbox"/> 3 ○ Staff commuting during peak hours: Staff can commute by public transit from a few parts of the community. ○ Distance to transit stops: Transit stops are within a long walking distance. ○ Visitors use of public transportation during off-peak hours: Few visitors can reach the site by public transit from homes or offices.</p> <p><input type="checkbox"/> 1 ○ Staff commuting during peak hours: There is no public transit for commuting to the building. ○ Distance to transit stops: Transit stops are an unacceptably long walking distance. ○ Visitors use of public transportation during off-peak hours: There is no public transit for visitors to the building.</p>
8	8
6	6
4	4
2	2

<input type="checkbox"/> Exceptionally important. <input type="checkbox"/> Important. <input type="checkbox"/> Minor Importance.	
Minimum Threshold level =	<input type="checkbox"/> NA <input type="checkbox"/> NR <input type="checkbox"/> Zero <input type="checkbox"/> DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 1 Scale A.14.1 for Public Transportation (Urban Sites)

A.14. Location, Access and Wayfinding

Scale A.14.2. Staff visits to other offices

Occupant Requirement Scale	
<p>9</p> <p><input type="checkbox"/> PROXIMITY TO DESTINATION: Operations require very close proximity.</p> <p>ACCESS TO DESTINATION: Sheltered access to external organizations, or to other offices of the same organization, e.g. staff hand-deliver documents or visit others nearby on a regular basis.</p> <p>7</p> <p><input type="checkbox"/> PROXIMITY TO DESTINATION: Operations require close proximity.</p> <p>ACCESS TO DESTINATION: Within walking distance, to external organizations, or to offices of other branches or divisions of the same organization.</p> <p>5</p> <p><input type="checkbox"/> PROXIMITY TO DESTINATION: Operations require reasonably close proximity.</p> <p>ACCESS TO DESTINATION: Within one-half hour driving time. This is typically for staff or managers needing to visit others on a regular basis, or for outside staff needing to visit the office.</p> <p>3</p> <p><input type="checkbox"/> PROXIMITY TO DESTINATION:</p> <p>ACCESS TO DESTINATION: Staff, or people from other offices, rarely need to visit each other. When visits are necessary, access is normally by car.</p> <p>1</p> <p><input type="checkbox"/> PROXIMITY TO DESTINATION:</p> <p>ACCESS TO DESTINATION: There is no need for staff, or people from other offices, to visit each other.</p>	<p>9</p> <p><input type="checkbox"/></p> <p>8</p> <p><input type="checkbox"/></p> <p>7</p> <p><input type="checkbox"/></p> <p>6</p> <p><input type="checkbox"/></p> <p>5</p> <p><input type="checkbox"/></p> <p>4</p> <p><input type="checkbox"/></p> <p>3</p> <p><input type="checkbox"/></p> <p>2</p> <p><input type="checkbox"/></p> <p>1</p> <p><input type="checkbox"/></p>

Facility Rating Scale	
<p>9</p> <p><input type="checkbox"/> Location of other offices visited during work: Frequently visited sites are on the same or adjacent block.</p> <p>Convenience of access to other sites: Other sites are within close walking distance, and the route is sheltered from extremes of weather, e.g. it is indoors or covered.</p> <p>7</p> <p><input type="checkbox"/> Location of other offices visited during work: Frequently visited sites are within walking distance.</p> <p>Convenience of access to other sites: The route to other sites is out of doors and not sheltered. Transit or car are not needed.</p> <p>5</p> <p><input type="checkbox"/> Location of other offices visited during work: Frequently visited sites are beyond walking distance. Driving time, office to office, is up to one-half hour. Visitor parking at the destination is within walking distance.</p> <p>Convenience of access to other sites: Transit to other sites takes more than one-half hour. Visitor parking is usually available at the destination.</p> <p>3</p> <p><input type="checkbox"/> Location of other offices visited during work: Frequently visited sites are remote. Driving time, office to office, is between one-half hour and one hour.</p> <p>Convenience of access to other sites: There is no transit to other sites, or, transit takes more than one hour. Visitor parking at the destination is usually full during working hours.</p> <p>1</p> <p><input type="checkbox"/> Location of other offices visited during work: Frequently visited sites are remote. Driving time, office to office, is one hour or more.</p> <p>Convenience of access to other sites: There is no transit or visitor parking at most other sites.</p>	<p>9</p> <p><input type="checkbox"/></p> <p>8</p> <p><input type="checkbox"/></p> <p>7</p> <p><input type="checkbox"/></p> <p>6</p> <p><input type="checkbox"/></p> <p>5</p> <p><input type="checkbox"/></p> <p>4</p> <p><input type="checkbox"/></p> <p>3</p> <p><input type="checkbox"/></p> <p>2</p> <p><input type="checkbox"/></p> <p>1</p> <p><input type="checkbox"/></p>

<input type="checkbox"/> Exceptionally important. <input type="checkbox"/> Important. <input type="checkbox"/> Minor Importance.	
Minimum Threshold level =	<input type="checkbox"/> NA <input type="checkbox"/> NR <input type="checkbox"/> Zero <input type="checkbox"/> DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 2 Scale A.14.2 for Staff Visits to Other Offices

A.14. Location, Access and Wayfinding

Scale A.14.3. Vehicular entry and parking

Occupant Requirement Scale	Facility Rating Scale
<p>9 <input type="checkbox"/> MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require complete separation between pedestrians and vehicles, and between cars and delivery/service vehicles, e.g. to avoid the risk of an accident, despite a high volume of traffic and a large population.</p> <p>PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for all the organization's owned vehicles. Parking for staff and visitor cars is provided within 1 block, at a low charge.</p> <p>PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide parking on-site for all who need space, at a low charge or no charge.</p> <p>7 <input type="checkbox"/> MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require complete separation between pedestrians and vehicles, and between cars and delivery/service vehicles, to avoid the risk of accident, despite a high volume of traffic or a large population.</p> <p>PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for all the organization's owned vehicles. Parking for staff and visitor cars is to be provided within 1 block, at a low charge.</p> <p>PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide parking on-site or within walking distance for all on-site staff and visitors, except at peak hours.</p> <p>5 <input type="checkbox"/> MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require normal caution between pedestrians and drivers of vehicles entering the site or making deliveries, e.g. to reduce the risk of accident in moderate volumes of traffic and moderate population.</p> <p>PARKING AT URBAN SITES: The required ratio of parking stalls to staff: in central core of town or city is 1:20 with no special provision for visitors.</p> <p>PARKING AT SMALL TOWN OR SUBURBAN SITES: The required ratio in periphery of core area is 1:3 plus visitor parking if none is available within walking distance; if public transit is not an available option for staff to come to work during peak hours, then the ratio is 1:1</p>	<p>9 <input type="checkbox"/> Separation of pedestrians and vehicles: Vehicle routes are separate from pedestrian approaches and entry. Vehicles are not a hazard to pedestrians.</p> <p>Separation of cars and trucks: The entry route for cars is separate from the route for trucks. The route and holding area for service vehicles is separate from both. <i>Only one of the next two features can be applicable:</i></p> <p>Parking at urban site: There is reserved parking on-site for all the organization's owned vehicles. Reserved parking for staff is on-site or within 1 block and is not expensive. Visitor parking is available within 1 block, at typical hourly charges in that locality.</p> <p>Parking at small town or suburban site: There is adequate on-site parking for occupants plus adequate parking for overlap during shift change. Visitor parking is separate from occupant parking, with adequate capacity for peak requirement, with no charge.</p> <p>8 <input type="checkbox"/></p> <p>7 <input type="checkbox"/> Separation of pedestrians and vehicles: Vehicle routes are separate from pedestrian approaches and entry. Vehicles are a minor hazard to pedestrians.</p> <p>Separation of cars and trucks: The entry route for cars is separate from the route for trucks and service vehicles. <i>Only one of the next two features can be applicable:</i></p> <p>Parking at urban site: There is reserved parking on-site or in the same block for the organization's owned vehicles. Public parking is available for most staff within 1 block. Public parking for visitors is available within walking distance, at typical hourly charges in that locality.</p> <p>Parking at small town or suburban site: There is adequate reserved parking on-site, or within 500 m, for all the organization's owned vehicles and 75% of one shift of staff. For visitors, separate parking is available with adequate capacity except at occasional peak visiting hours, with no charge.</p> <p>6 <input type="checkbox"/></p> <p>5 <input type="checkbox"/> Separation of pedestrians and vehicles: Vehicle routes are adjacent to pedestrian approaches and entry. Pedestrians are expected to pay attention in order to avoid vehicles.</p> <p>Separation of cars and trucks: The entry route for cars is adjacent to the route for trucks or service vehicles, so special driver caution is required. <i>Only one of the next two features can be applicable:</i></p> <p>Parking at urban site: Reserved parking is available on the same or adjacent block for the organization's owned vehicles. Public parking is available within 1 block for up to half of the staff but is considered by staff to be expensive. For visitors, public parking is within walking distance at typical hourly charges in that locality.</p> <p>Parking at small town or suburban site: There is adequate parking on-site, or within walking distance, for the organization's owned vehicles and 75% of occupants and visitors, except at peak visiting hours. Charge for parking, if any, is consistent/competitive with normal practice in that locality.</p> <p>4 <input type="checkbox"/></p>

Scale A.14.3. continued on next page

FIG. 3 Scale A.14.3 for Vehicular Entry and Parking

A.14. Location, Access and Wayfinding

Scale A.14.3. Vehicular entry and parking (continued)

Occupant Requirement Scale	Facility Rating Scale
<p>3 <input type="checkbox"/> MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations involve minimal risk of accident between pedestrians and vehicles, e.g. there are very few vehicular movements and most are at times when few people need to enter or leave the building.</p> <p>PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for a few of the organization's owned vehicles, but no provision for on-site parking for staff or visitors. Staff and visitors must rely on public parking facilities within walking distance.</p> <p>PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide on-site parking or parking within walking distance for 50% of staff and visitors, except at peak hours.</p> <p>2 <input type="checkbox"/></p> <p>1 <input type="checkbox"/> MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations involve negligible risk of accident between pedestrians and vehicles, e.g. there are no deliveries by truck on a regular basis, and the organization has no owned vehicles.</p> <p>PARKING AT URBAN SITES: The parking policy for urban sites does not provide for any parking.</p> <p>PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide on-site parking or parking within walking distance for less than 50% of staff, and visitors park at the curb.</p>	<p>3 <input type="checkbox"/> Separation of pedestrians and vehicles: Vehicle routes cross pedestrian approaches and entry. There is a potential hazard to pedestrians, and pedestrians must take care to avoid an accident.</p> <p>Separation of cars and trucks: Truck delivery and service vehicles use the same routes as cars, creating a potential accident hazard.</p> <p><i>Only one of the next two features can be applicable:</i></p> <p>Parking at urban site: Limited reserved parking is available for the organization's owned vehicles. Public parking for staff and visitors is within walking distance, but is limited or expensive compared to market rates, or both.</p> <p>Parking at small town or suburban site: There is parking on-site, or within a short walking distance, for 50% of staff. Visitor parking is limited to a few spaces on-site, or at the curb with parking meters.</p> <p>2 <input type="checkbox"/></p> <p>1 <input type="checkbox"/> Separation of pedestrians and vehicles: Vehicle routes cross pedestrian approaches and entry. There is a significant hazard to pedestrians.</p> <p>Separation of cars and trucks: Truck delivery and service vehicles use the same routes as cars, creating a significant accident hazard.</p> <p><i>Only one of the next two features can be applicable:</i></p> <p>Parking at urban site: There is no parking within walking distance.</p> <p>Parking at small town or suburban site: Parking is on-site or within a short walking distance for less than 50% of staff. Visitor parking is only at the curb with parking meters.</p>

<input type="checkbox"/> Exceptionally important. <input type="checkbox"/> Important. <input type="checkbox"/> Minor Importance.	
Minimum Threshold level =	<input type="checkbox"/> NA <input type="checkbox"/> NR <input type="checkbox"/> Zero <input type="checkbox"/> DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 3 Scale A.14.3 for Vehicular Entry and Parking (continued)

A.14. Location, Access and Wayfinding

Scale A.14.4. Wayfinding to building and lobby

Occupant Requirement Scale	Facility Rating Scale
<p>9 <input type="checkbox"/> ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby, must be exceptionally easy and simple.</p> <p>○ TYPE OF VISITORS: There are large numbers of visitors to the facility daily, most of them for the first time, and many with cultural expectations that differ from the norm for that locality, or different languages, etc.</p>	<p>9 <input type="checkbox"/> ○ Locating the building: The signage is excellent, e.g. the name, signage and street number are all obvious and easily readable from the sidewalk or from a passing car.</p> <p>○ Wayfinding to entry: The entrance is obvious from the sidewalk, car park or mall. Signage is excellent. There is a direct entry from visitor parking and drop-off. There is a convenient entry from staff parking.</p> <p>○ Visitor drop-off: There is a turning-in area for visitor drop-off near the main entry with room for attended cars to stand while waiting.</p> <p>○ Wayfinding to lobby: The entry to the lobby is direct and obvious from all main entrance points and parking.</p>
<p>8 <input type="checkbox"/></p>	<p>7 <input type="checkbox"/> ○ Locating the building: The signage is very good, e.g. the name, signage and street number are all clearly visible and obvious from the sidewalk or from a passing car.</p> <p>○ Wayfinding to entry: The entrance is obvious from the street or sidewalk and is easily found from the car park or mall. Signage is fully adequate and appropriate.</p> <p>○ Visitor drop-off: A turning-in area is provided near the main entry.</p> <p>○ Wayfinding to lobby: The lobby is easily found from all entrance points and by direct access from parking.</p>
<p>6 <input type="checkbox"/></p>	<p>5 <input type="checkbox"/> ○ Locating the building: The building name, signage and street number are clearly visible from the sidewalk or a passing car.</p> <p>○ Wayfinding to entry: The entrance is visible but not obvious from the street. Basic signage is provided, that complies with minimum requirements.</p> <p>○ Visitor drop-off: There is a visitor drop-off at curbside not far from the main entry.</p> <p>○ Wayfinding to lobby: Access routes to the lobby from the entrance and parking are not direct, but necessary signage is provided.</p>
<p>5 <input type="checkbox"/> ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby is not likely to be a problem.</p> <p>○ TYPE OF VISITORS: Most visitors are from the local community and are therefore conversant with the layout and names of streets and landmarks. Most visitors have been to the office before.</p>	<p>4 <input type="checkbox"/> ○ Locating the building: Signage is inadequate, inappropriate or missing. The street number is hard to see from the sidewalk or a passing car.</p> <p>○ Wayfinding to entry: Direction signs are needed because the entry is not obvious from the street. It is hard to distinguish the main building entrance from secondary building entrances. However, signage is inadequate, inappropriate or missing.</p> <p>○ Visitor drop-off: There is no visitor drop-off area, or, if provided, is dangerous to use.</p> <p>○ Wayfinding to lobby: Access to the lobby from parking is circuitous and hard to find. Signage is inadequate, inappropriate or missing.</p>
<p>3 <input type="checkbox"/> ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby is eased because most people who enter the facility know their way around.</p> <p>○ TYPE OF VISITORS: Operations involve only a few visitors to the facility, most of whom are known to staff working in the facility, and most of whom have visited before. Staff turnover is low, and new staff are shown around by an old hand. The operation can be characterized as a back office.</p>	<p>3 <input type="checkbox"/></p>
<p>2 <input type="checkbox"/></p>	<p>2 <input type="checkbox"/></p>

Scale A.14.4. continued on next page

FIG. 4 Scale A.14.4 for Wayfinding to Building and Lobby