



BUILDING CODE CHECKLIST FOR UNIVERSAL ACCESSIBILITY





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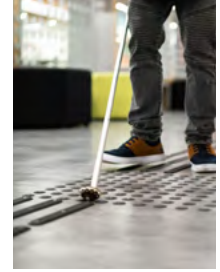
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List of Acronyms

BCA	Building Control Authority (Singapore)
BRCA	Building Regulatory Capacity Assessment 2.0
BRR	Building Regulation for Resilience
DRM	Disaster Risk Management
GFDRR	Global Facility for Disaster Reduction and Recovery
LRV	Light Reflectance Value
ICT	Information and Communications Technology
ISO	International Organization for Standardization
LHAC	League of Historical and Accessible Cities (Europe)
TWSI	Tactile Walking Surface Indicators
UDi	Universal Design Index
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNICEF	United Nations Children's Fund
UNWTO	United Nations World Tourism Organization
WC	Water Closet (toilet or toilet room)
WHO	World Health Organization



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1. Overview

Rapid urbanization and population growth are driving the construction of new buildings, with global building stocks expected to double in the next 15 to 20 years.¹ While such trends will represent significant development advances and offer economic growth opportunities, concern remains regarding the resilience and safety of both new and aging building stocks, increased energy and water consumption, and accessibility of the existing and evolving built environment and infrastructure. This increase in development will result in greater exposure to climate and disaster risks due to the evolving impacts of climate change, depending on where urbanization growth occurs, and the standards of construction. Additional vulnerabilities can be compounded in unregulated and informal settlements where buildings are constructed on risky sites, with high density, using substandard building materials, and failing to implement safe design and construction practices. The combination of urbanization and climate change poses significant challenges for countries and cities to form a comprehensive set of regulatory and policy instruments to guide a more resilient, sustainable, and accessible built environment.

The World Bank's Disaster Risk Management (DRM) engagements support countries

to design and implement a diverse range of investments for risk reduction and preparedness. Among various approaches, improving the building regulatory framework and implementation capacity proves to be one of the most cost-effective means of reducing underlying climate and disaster risks, in combination with investments for physical structural improvements and retrofits.² In this context, the Global Facility for Disaster Reduction and Recovery (GFDRR)'s global thematic area [Building Regulation for Resilience \(BRR\)](#) aims to promote resilient, green, healthy, and inclusive built environments through enhanced regulatory frameworks and implementation capacities.

The BRR offers technical support and advisory services to assist governments through analysis of existing regulatory frameworks and implementation capacity to identify policy reforms most urgently needed, and relevant investment activities, underpinned by knowledge of global good practices.³ To facilitate such process, the BRR offers practical tools as highlighted in **Figure 1**. While the [Building Regulatory Capacity Assessment \(BRCA 2.0\)](#)⁴ is a methodology to analyze a country's existing regulatory framework and implementation capacity with a view toward

¹ Global Alliance for Buildings and Construction, 2022 Global Status Report for Buildings and Construction: [unep.org/resources/publication/2022-global-status-report-buildings-and-construction](https://www.unep.org/resources/publication/2022-global-status-report-buildings-and-construction)

² [gfdrr.org/en/publication/building-regulation-resilience-0](https://www.gfdrr.org/en/publication/building-regulation-resilience-0)

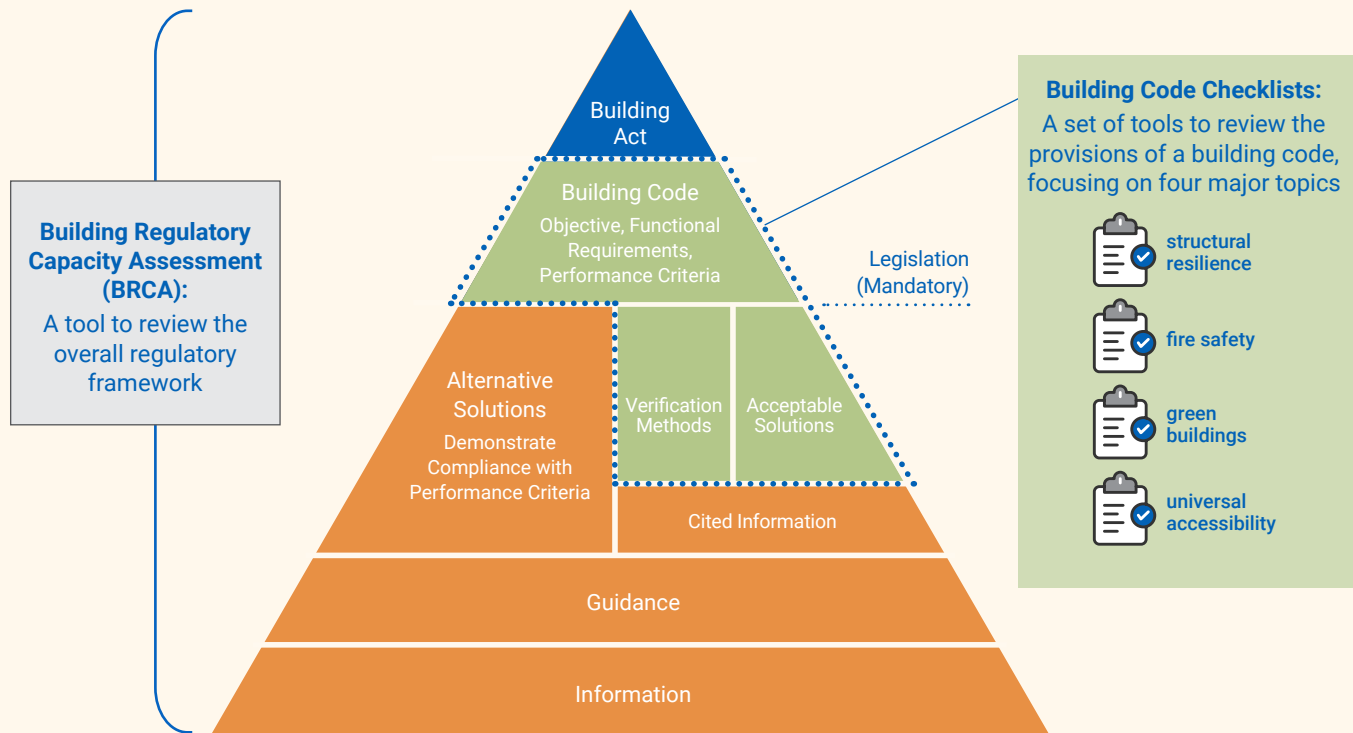
³ [gfdrr.org/en/building-regulation-for-resilience](https://www.gfdrr.org/en/building-regulation-for-resilience)

⁴ [gfdrr.org/en/publication/building-regulatory-capacity-assessment-brca-20-methodology](https://www.gfdrr.org/en/publication/building-regulatory-capacity-assessment-brca-20-methodology)

distilling a set of targeted recommendations for countries for priority actions, a set of Building Code Checklists is a practical tool to facilitate assessment of coverage and depth of building code provisions, focusing on four major elements: [structural resilience](#), [fire safety](#), [green buildings](#), and universal accessibility (this document). A set of Building Code Checklists helps countries' governments and code development bodies (or professionals commissioned by governments) to assess their own codes against consolidated checklists referring to global good examples and thereby identify potential areas for further elaboration.

The **Building Code Checklist for Universal Accessibility** provides a systematic approach to review building code provisions, with a focus on universal accessibility in the built environment and ensure consideration for persons with different abilities and of all ages (the elderly, pregnant women, and children) during the design, construction and operation processes. It is a valuable resource for building professionals seeking to create inclusive, safe, and accessible spaces for all individuals.

Figure 1. Scope of the different BRR tools



Source: Figure adapted and modified from the original figure by [Building and maintaining New Zealand's homes and buildings](#).

2. Introduction

2.1 Importance of Inclusion in Building Regulations

Inclusive access in the built environment is not just a matter of compliance but a societal imperative. With the global population living with different kinds of abilities and needs and the senior population expected to rise sharply, accessible environments are crucial for promoting equity and equality. Universal accessibility in building design enables people of all ages and abilities to lead independent lives, thus integrating a diverse workforce into the economy and enriching the fabric of society. Almost 60 percent of the world's population will live in cities by 2070.⁵ These urban populations are diverse, encompassing individuals with different types of impairments,

and the built environment should meet their various needs.

2.2 Diverse Needs and Accessibility Challenges

Fully understanding the needs of people with various abilities, the elderly, children and their caregivers, and those with temporary disabilities, is crucial to creating a universally accessible environment. By acknowledging the barriers these groups face, we can work toward a more inclusive world where every individual has the opportunity to participate fully and equally in society.

- **Persons with disabilities:** According to the World Health Organization (WHO)'s Global report on health equity for persons with

⁵ World Cities Report 2022: <https://unhabitat.org/wcr/>

disabilities (2022),⁶ 16 percent of the world's population, roughly 1.3 billion people, live with some form of disability. This number is likely to grow for reasons that include conflicts, disasters, forced displacements, and aging.⁷ Persons with disabilities face higher rates of multidimensional poverty than persons without disabilities.⁸ They encounter attitudinal, institutional, informational and environmental barriers that hinder their full and effective access and participation in society on an equal basis with others.

- **Persons with temporary disabilities:**

Some impairments can be encountered by any individual during their lifespan. According to the WHO, almost all persons will experience either a temporary or a permanent disability at some time in their life.⁹ Any person may have a temporary disability due to a physical or psychological condition that causes short-term impairments. Persons with temporary disabilities include those with broken limbs, concussions, temporary hearing/sight loss, temporary nerve damage and any other

short-term impairments or functional limitations following an accident, traumatic incident, surgery or medical treatment.

- **Senior population:** Meanwhile, by 2030, one in six people or 16 percent of the global population, will be 60 years or over, resulting in an increased number and proportion of older persons in the total global population: a projected growth of 56 percent from 901 million to 1.4 billion.¹⁰ It is currently estimated that over 46 percent of persons over the age of 60 experience moderate to severe disability, according to the United Nations.¹¹
- **Children and care providers:** Furthermore, approximately 25 percent of the world's population is below the age of 15.¹² In 2020, UNICEF estimated that 1.18 billion children live in urban areas.¹³ The number of births worldwide is currently estimated at 2.3 per women, meaning that the average woman will be pregnant at least twice during her lifetime.¹⁴ Pregnant women will encounter temporary mobility challenges, and caregivers will benefit greatly from an

⁶ Global report on health equity for persons with disabilities: <https://www.who.int/publications/item/9789240063600>

⁷ World Bank GPURL Guidance Note on Disability Inclusion: <https://documents1.worldbank.org/curated/en/437451528442789278/pdf/Disability-inclusion-and-accountability-framework.pdf>

⁸ Pinilla-Roncancio, M. and Alkire, S. (2017). 'How poor are people with disabilities around the globe? A multidimensional perspective', OPHI Research in Progress 48a, Oxford Poverty and Human Development Initiative (OPHI), University of Oxford: <https://ophi.org.uk/publication/RP-48a>

⁹ WHO Disability: https://www.who.int/health-topics/disability#tab=tab_1

¹⁰ UNDP: Ageing, older persons and the 2030 agenda for sustainable development: <https://www.un.org/development/dspd/wp-content/uploads/sites/22/2017/08/Ageing-Older-Persons-and-2030-Agenda-Issues-Brief-low-resolution-.pdf>

¹¹ Ageing and disability | United Nations Enable: <http://social.desa.un.org/issues/disability/disability-issues/ageing-and-disability>

¹² World Bank Data

¹³ Strategic Note on UNICEF's Work for Children in Urban Settings: <https://www.unicef.org/media/133771/file/>

¹⁴ World Bank Data. Fertility rates: https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?name_desc=false

accessible built environment while carrying small babies and children.

2.3 Defining Universal Accessibility

Universal Accessibility is a design philosophy that aims to make environments usable for as broad a group of people as possible, regardless of age or ability. It is about creating an inclusive world which allows everyone to participate without barriers. While the term “universal accessibility” is widely used, there is no commonly agreed definition, and variations are used by different professionals and institutions in different contexts. In the [World Bank’s Environmental and Social Framework](#), **universal access** is described as “unimpeded access for people of all ages and abilities, which should be incorporated into project design for new facilities and reviewed for existing facilities”.¹⁵

The World Bank defines the concept of universal access as applying “both to the built environment (for example, schools, community water, sanitation facilities, bus terminals, and public playgrounds) and virtual environments (for example, smart villages/city interfaces, online learning, government portals to access social benefits), and it also applies to the design and delivery of services (for example, skills development programs, cash transfers).”¹⁶

While this checklist uses that definition, it recognizes the appropriate use of alternative terminology and concepts, such as *universal design* (usable by all people, to the greatest extent possible, without the need for adaptation)¹⁷ and *design for all* (interventions into environments, products and services which aim to ensure that anyone, including future generations, regardless of age, gender, capacities or cultural background, can enjoy equal opportunities to participate in social, economic, cultural and leisure activities).¹⁸

2.4 Global Efforts for Universal Accessibility

The movement toward universal accessibility has been shaped by various global efforts, responding to the needs of a diverse population, including persons of different ages and abilities. Its history reveals the influence of societal changes. This evolution is marked by key legislation, design principles, and international conventions, coalescing as a set of comprehensive guidelines that underscore the necessity to create and maintain an accessible built environment for all users. These efforts recognize the challenges posed by existing infrastructures and the importance of adapting them to meet universal accessibility standards, as outlined in various international and national examples.

¹⁵ World Bank. Environmental and Social Framework: <https://pubdocs.worldbank.org/en/837721522762050108/environmental-and-social-framework.pdf> and <https://documents1.worldbank.org/curated/en/573841530208492785/Environment-and-Social-Framework-ESF-Good-Practice-Note-on-Disability-English.pdf>

¹⁶ World Bank. Disability Inclusion and Accountability Framework: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/437451528442789278/disability-inclusion-and-accountability-framework>

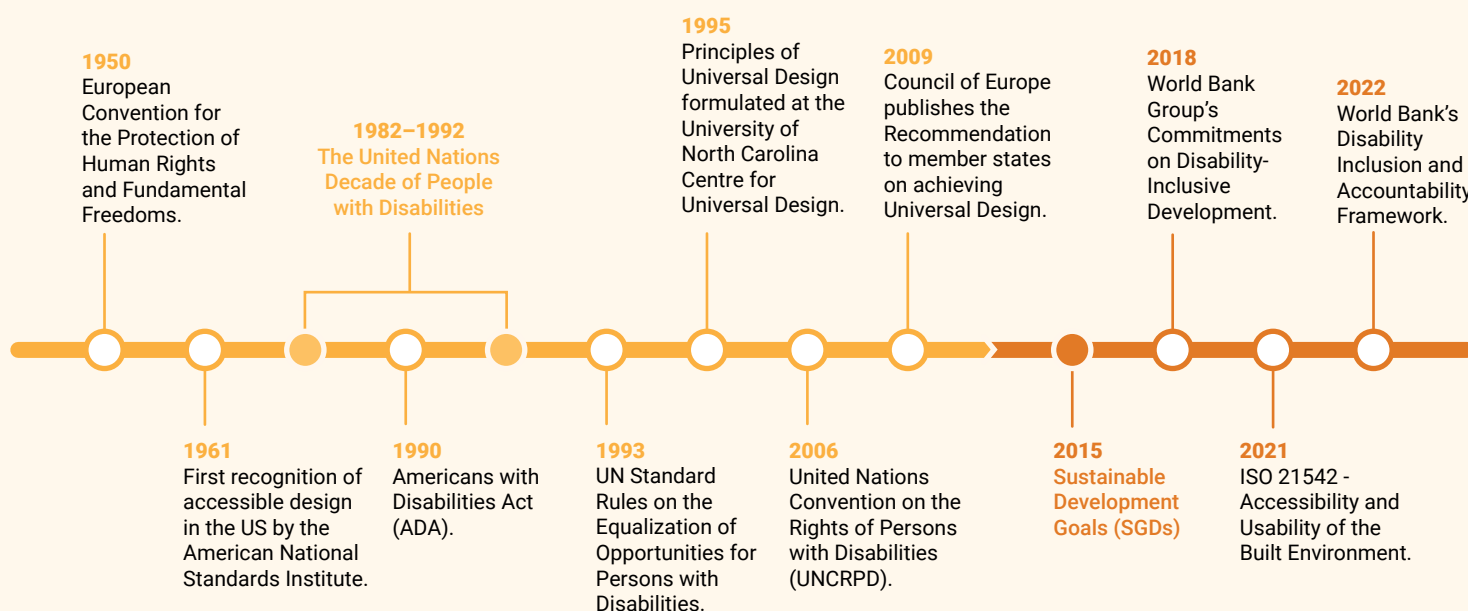
¹⁷ Source: Center for Universal Design, North Carolina State University.

¹⁸ Source: Design for All Foundation.

Historically, building code provision for universal accessibility arose primarily from the needs of persons with disabilities who faced discrimination and bias. People with diverse abilities and access needs must navigate buildings and facilities. In many countries, their shared needs gave rise to a movement in society, particularly following World War I and II, when a large number of people with some kind of disability were expecting to rejoin society after receiving rehabilitation¹⁹. Over the

years, accessibility considerations have evolved and expanded to accommodate the wider needs of different user groups, such as, but not limited to, people with limited mobility, low visual capacity, hearing impairments, elderly persons, people with cognitive impairments, pregnant women, caretakers of minors, children and seniors. Significant advances have been made to establish universal accessibility and equality recommendations, legislation and rights for all, as shown in the timeline in **Figure 2**.

Figure 2. International progress toward Universal Accessibility



Source: Developed by authors based on the mentioned references.

¹⁹ <https://pubmed.ncbi.nlm.nih.gov/25941048/>

2.5 International, Regional, and National Standards for Universal Accessibility

Accessibility considerations have evolved and expanded to recognize the unique challenges presented by the existing built environment and buildings, including sites of historical significance. In recent years, more countries have put in place legislative mechanisms to address universal accessibility within existing buildings. For example, these countries have introduced equality and disability legislation that requires services being provided in existing buildings to be accessible and usable for all.

Recognizing varied needs of the global population, international, regional, and national institutions are collaborating to forge standards that pave the way for accessible and inclusive built environments. This

collective effort aims to ensure that our built environment not only meets the diverse requirements of its inhabitants but also embodies the principles of inclusivity, safety, and usability for people of all ages and abilities. Examples include: international standards like ISO 21452: 2021 Building construction — Accessibility and usability of the built environment for the design of accessible built environments; and regional standards like EN 17210: 2021 Accessibility and usability of the built environment, issued by the European Committee for Standardization. While many countries start by achieving no more than minimum compliance, some have come to see the larger societal benefits a country can achieve by developing truly universally accessible built environments—promoting a more inclusive society through regulatory and policy instruments.

3. Objectives

A robust building regulatory framework should include a comprehensive set of universal accessibility provisions as well as structural resilience, fire safety, green building, sustainability, and environmental requirements.

To establish a framework that is both inclusive and practical, the **Building Code Checklist for Universal Accessibility** has been designed to help building professionals to enhance the universal accessibility aspect of the built environment. The checklist serves as a practical tool for policy makers, officials involved in the development of codes, regulations, and standards, and construction sector professionals (such as architects and engineers), as well as World Bank Task Team Leaders and task teams to leverage regulatory reform opportunities for making buildings and spaces accessible to everyone. Likewise, as it has been specifically formulated to assist in

reviewing the universal accessibility provisions of building codes, it helps governments to address these crucial elements in building code updates effectively and systematically.

The checklist's dual purpose is as: i) an assessment tool for understanding and enhancing current universal accessibility codes and provisions; and also ii) a reference model outlining critical components drawn from global examples. In other words, it is both an assessment framework for existing codes, and a guideline for updates or the formulation of new codes.

Although the checklist is written for ease of use by readers without specialized knowledge, it is shaped by the input of experts in universal accessibility regulations and design. Their expertise is instrumental in navigating the intricacies involved in codifying accessibility within building regulations.

This checklist is designed to work with other modules of Building Code Checklists for [fire safety](#), [green buildings](#), and [structural resilience](#). These modules have been applied together and proven to be useful in assisting the review of building codes and relevant regulations or standards in specific countries as part of World Bank financed operations including Development Policy Operations (for example, to assess the readiness of an updated building code as a prior action) and Investment Project Financing (for example, to identify the scope of investment activities on building code development/updates). The use of the checklist series could work alongside other sector-specific guidance notes, such as the upcoming World Bank “Resilient, Green, and Inclusive Health Facilities: Guidance on Planning,

Design, and Operation” (2025), and similar applications to other sectors could be explored depending on demands.

This checklist is followed by [Appendix A: Implementation Policy Examples](#), which shares global good practice examples of implementation policies for universal accessibility provisions in the built environment from 21 countries, which can serve as inspiration for other countries now planning analogous journeys to make their built environments and societies more inclusive and accessible. The checklist concludes with [Appendix B: Glossary of Terms](#), which provides definitions of key technical terms used in this document.

4. Guidance: How to Use the Building Code Checklist for Universal Accessibility

A systematic approach for reviewing universal accessibility provisions in building codes is encapsulated in **Figure 3**. It guides practitioners through a sequence of steps. Although it may be possible to complete some parts of the checklist without specific expertise and experience in universal design practices and regulations, a thorough consideration of the regulatory landscape and relevant knowledge could make the assessment findings more comprehensive and insightful. Ideally, the reviewers would include specialists with a

good understanding of a country's accessibility issues as well as international subject-matter experts familiar with a wide range of building codes with universal accessibility provisions and broader building regulatory frameworks.

Priority questions have been identified to permit a shorter, partial assessment that can be carried out quickly, yielding a high-level overview: focusing on areas where codes have been found to have critical gaps in past reviews.

Figure 3. Steps to be taken in a systematic review of code provisions for universal accessibility



4

Assess provisions in a country context

Consider the regulatory and market capacity required to interpret and act upon the regulatory provisions in a manner that can be expected to achieve the universal accessibility objectives for buildings that are compliant with the regulations.

Examine if the regulatory framework allows for “reasonable accommodations”—modifications or adjustments—when it is not feasible to meet certain requirements: this ensures that accessibility can be achieved through alternative solutions.

Review the local systems for testing, approving, and accrediting construction materials and designs, such as measuring door opening forces or the slip resistance of surface finishes, to ensure they comply with accessibility standards.

5

Assess interface with other regulations

Review the interface between provisions related to universal accessibility and other sections and regulations as appropriate, to analyze how universal accessibility standards interact with other regulatory areas, such as urban planning, building services, and public safety, and confirm that accessibility considerations are integrated within them.

6

Finalize the checklist responses and distil recommendations

After completion of the checklist, the reviewer should identify and summarize key areas of potential opportunities for enhancement in coverage and depth in the form of technical recommendations for stakeholders. This summary should note any constraints on the review (such as restricted access to information or resources) and address specific concerns or questions that may have prompted the review.

4.1 Reviewing Components within the Country Context

While robust building regulations incorporate the universal accessibility components, there is seldom a one-to-one relationship between the defined components and the provisions within the regulations. This is because the formal and conceptual structure of building regulation derives from national legislation and regulatory models, meaning that building and universal accessibility regulations will be unique to the country for which they are developed, often causing a single provision to be split between different regulations, or to be expressed using different terminology.

Factors for consideration when initiating a review include the government structure (such as a centralized national system, a federal system, and so forth), the government ministry(ies) or department(s) with responsibility for universal accessibility legislation and regulations, the legislative structure, and the model used for development of the universal accessibility building code (if any). Key questions include:

1. Are building code and universal accessibility regulations under the purview of the same ministry?
2. Do building regulations address all universal accessibility components for buildings, or are some provisions addressed under other regulations?
3. Are the building and universal accessibility regulations applied uniformly across the

country, by state or territory, or in another way?

4. What is/are the source(s) of reference for system design, installation, materials, and so forth (for example, country Bureau of Standards, International Organization for Standardization—IOS)?

Depending on the answers to the above questions, a comprehensive review of universal accessibility components in regulations may require a review of documents associated with several government ministries, agencies and private-sector entities (especially for standards).

There are various ways to have universal accessibility provisions as part of larger building codes, or as a freestanding code. A comparative study of building codes and universal accessibility provisions from selected countries and regions underpinned the development of this checklist. It revealed varying approaches to regulatory structures and universal accessibility issues. Given that each country has its own unique building code and associated legal and regulatory framework, each will naturally find its own best path to formulation of the most robust set of provisions and technical guidance to make the built environment universally accessible.

To illustrate such varying approaches, **Table 1** provides a summary of the three major ways to integrate universal accessibility within countries' regulatory systems, and some examples.

Table 1. Three ways to integrate Universal Accessibility in building regulations

Approach	Country examples
Universal Accessibility integrated as part of unified building codes	Ireland, New Zealand, South Africa, Tanzania
Universal Accessibility addressed as part of unified building codes and other regulation(s)	European Union; Bhutan, Nepal, Rwanda, United Arab Emirates
Independent code for Universal Accessibility	Chile, Mexico, Philippines, Singapore, United States

The following chapter provides some basic knowledge on six fundamental universal accessibility components for the built environment.

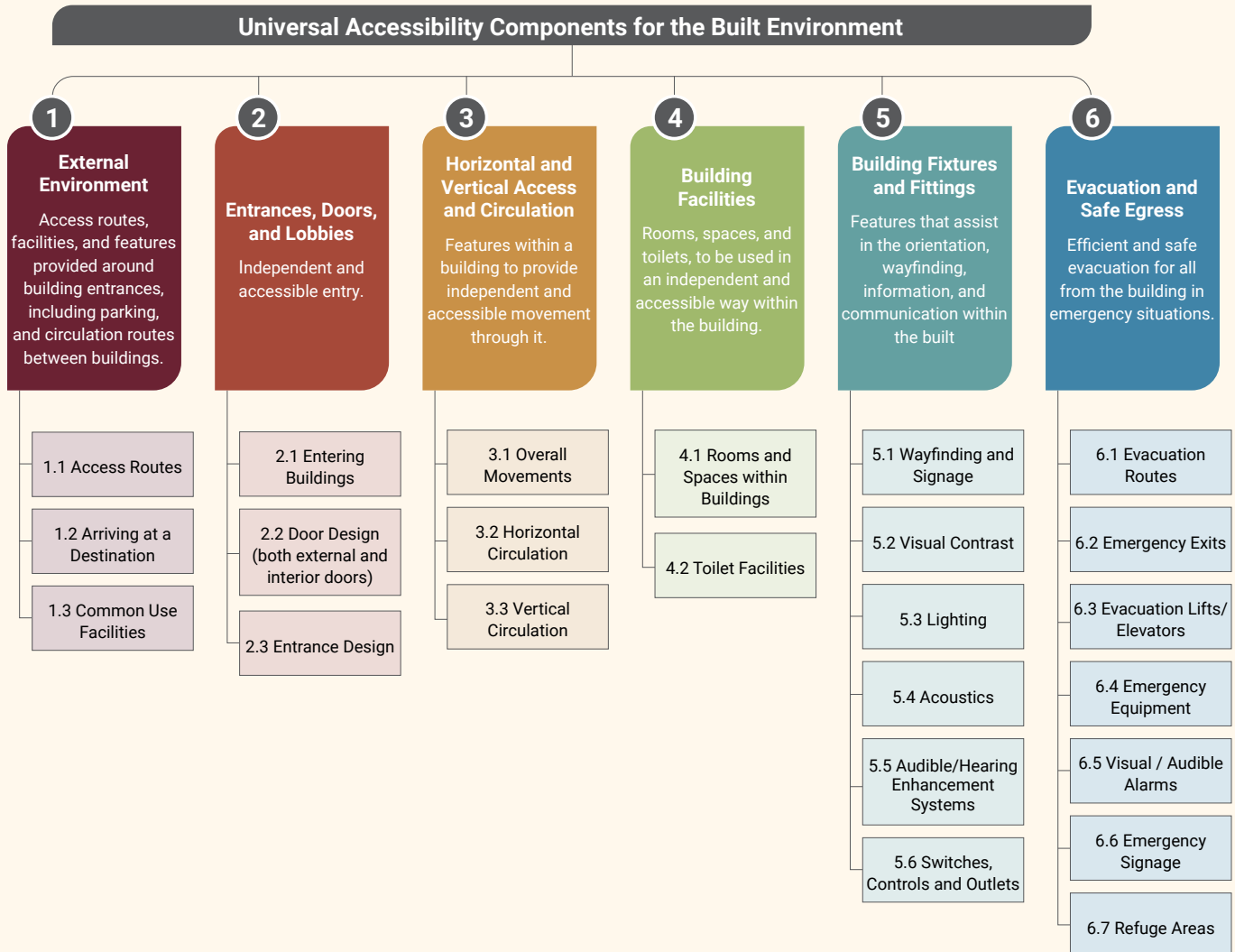
5. Key Concepts in Universal Accessibility Components in Building Regulations

The following six components and subcomponents, shown in **Figure 4**, are distilled as the fundamental universal accessibility elements that many building codes and international and regional model standards include as provisions or requirements, based

on a comparative analysis of building codes' universal accessibility provisions, and the universal accessibility codes of 14 countries,²⁰ alongside international and regional model standards, conducted as part of this checklist development.

²⁰ Africa: Morocco, Rwanda, South Africa; Asia: India, Japan, Singapore; Middle East: United Arab Emirates; Europe: Ireland, Sweden, United Kingdom; North America: Canada, United States; South America: Colombia; Oceania: New Zealand.

Figure 4. Fundamental Universal Accessibility Components and Subcomponents



5.1 External Environment

Access to the external environment (for example, building premises) is essential to allow all users of a building to arrive, move around the surroundings, and approach the building from a vehicle or an adjacent site or road, in a safe and easy way. External environment features are all important elements that require design consideration in order to maximize independence, and usability, and ensure healthy and safety movement within the space (for example, maintaining the slip resistance of external paving; ensuring trip hazards are avoided and repaired where necessary; ensuring obstacles along access routes do not become a hazard for someone with a visual impairment, and so forth).

5.2 Entrances, Doors, and Lobbies

There are several factors that influence independent access to enter a building.²¹ Entrances doors, lobbies, and reception areas are the first point of contact for most users of a building. The provision of accessible entrances and reception areas is key, particularly to a first-time user's experience, to help them understand the space and move safely and efficiently. The area should not present any barriers for any user. This may involve level access, automated doors, clear layout of the space to identify reception or the main circulation route, and so forth. Part of this experience can also be formed prior to arriving at the building as many users will use pre-visitor information to understand how to reach

the building, where to go, and how to get to relevant destinations.

5.3 Horizontal and Vertical Access and Circulation

Circulation to and on each building floor should be clear and easy to navigate for all users. People within a building should be able to travel horizontally conveniently and without discomfort to access all facilities provided. Adequate space should be provided in order to allow all users to maneuver and pass one another, preferably at any point in the floor plan. Obstacles and projections into the circulation space should be kept to a minimum where practicable and, where necessary, measures should be taken to protect people from accidental collisions or trips.

Likewise, the vertical circulation throughout the building (for example, stairs, ramps, and lifts/elevators) provides essential access to floors in multistory buildings. It should allow people to travel vertically through the floors in order to access all available facilities within the building. Vertical features should be closely integrated with elements of the horizontal circulation to provide a logical and convenient means of moving through an entire building.

5.4 Building Facilities

Depending on the type, size, and purpose of buildings, facilities specific to each use and need may be required. These facilities can vary, and may include sanitary

²¹ This document promotes independent access and use of buildings and their facilities by users, at the same time it recognizes the need for assisted access and use with the help of companion(s) depending on the user's needs and situation.

facilities, workstations and meeting rooms, refreshment facilities, quiet rooms, and seating arrangements, among others. These facilities make buildings usable and, in many cases, more comfortable. Where these facilities are provided, it should be ensured that they are accessible and usable by the widest range of people, encouraging active participation by all users. For example, many of the issues people face within sanitary facilities occur due to a poor understanding and management of the spaces after installation. Effective management and maintenance are just as important as their design, to keep them safe, comfortable, and easy to use.

5.5 Building Fixtures and Fittings

A proper building design must include essential fixtures and fittings to assist people of all abilities to access and use all facilities within the building. A detailed design of the building's interior (for example, lighting,

acoustics, ventilation, and so forth) is very important, though often overlooked, to make the space comfortable for everybody to use. Careful consideration of the layout, use of color and symbols, audible and tactile information, as well as the use of signage, are parts of the building that can make the difference between a comfortable space and an unpleasant experience. These elements inform the overall experience of the building and many people's impressions of it.

5.6 Evacuation and Safe Egress

The building design must promote safe and efficient egress and evacuation for all users. It must recognize that people with any mobility, sensory, cognitive, or mental health impairments, may need assistance in order to escape in the event of fire or any other emergency. It is therefore necessary to make provisions for this, both in the design and the management of the building.

6. Building Code Checklist for Universal Accessibility

Table 2 is provided as a tool to assist in the review of universal accessibility provisions in building regulations based on the universal accessibility components outlined above. It should be noted that these are a set of guiding questions to assess the coverage and contents of provisions, rather than their comprehensiveness. Given that some provisions might be provided in multiple documents (codes, regulations, and international, regional, or national reference standards), it is recommended that the reviewer note which document is used to answer each question.

To keep the assessment fairly short and quick, priority questions have been identified, to offer a high-level overview. These focus on areas deemed to be of critical importance by international experts involved in their countries' regulatory development and implementation. Priority questions are highlighted with shaded cells in the following section.

Table 2. Checklist for the Review of Universal Accessibility Provisions in Building Regulations

Components	Description	Diagnostic Question
0. REGULATORY FRAMEWORK		
0.1 Jurisdiction of regulatory application	<p>Identify the scope of the code as in some cases there may be references to one or more detailed accessibility standards, to other types of standards (fire protection, urban design, and so forth), or to regional or international accessibility standards.</p> <p>Identify the different code jurisdictions or the applicability of standards in different countries, regions or cities (especially in federal states).</p> <p>Find out if only one code/standard is applied regardless of the sector or type of buildings, or if different sectors (health, education, and so forth) issue specific accessibility standards.</p>	<p>Identify:</p> <ol style="list-style-type: none"> In the case of a federal state, if it uses a unified national code, or if each province or state uses its own code. If a single accessibility code is used, or if requirements are scattered among many codes or documents; if the latter, clarify whether any provisions contradict each other. How any separate accessibility codes for buildings are structured and separated (for example, public versus private buildings; or specific building types for education, health care, commerce, government administration, tourism, and so forth)? If the accessibility code development process requires the participation of local persons with disabilities, groups, or organizations.
0.2 Target regulation and code scope	<p>Generally assess the target regulations or codes to identify the scope of the universal accessibility provisions.</p>	<ol style="list-style-type: none"> What is the title and year of publication of the accessibility code(s): and is it aligned with latest international best practices (such as provisions for sensory or cognitive disabilities)? Does the code cover design and construction of new buildings, maintenance and rehabilitation of existing buildings (including heritage buildings)? Do the code's technical specifications address local climate and culture (such as shading for tropical/desert areas, or slip resistance values for rain/snow, a prayer room)? Does the code provide for both new and existing buildings simultaneously; or apply different sets of requirements for existing buildings and retrofits?
0.3 Provisions for specific building types	<p>Accessibility provisions are meant to be used in any type of building; however, a building's complexity, local conditions, or specific regulatory requirements may dictate that some types of buildings require additional considerations or must be considered separately from generic constructions.</p> <p>This situation may vary from country to country. The aim here is to find out if local codes mention specific building types separately, such as:</p> <ul style="list-style-type: none"> • Health care facilities; • Educational buildings (from primary school to higher education); • Transportation; • Offices and workplaces; • Heritage and historical sites; • Courts and legal institutions; • Religious facilities; • Parks, or natural areas, and • Others. 	<ol style="list-style-type: none"> Does the code include provisions for specific building types? Or does the country (or local government or professional bodies) provide guidelines on universal accessibility for specific buildings? Does the code (or alternative regulations/guidelines) provide design requirements unique to those types of buildings, namely, emergency rooms, laboratories, study rooms, canteen areas, train platforms, and so forth, considering acoustics, for example? If so, do those requirements reflect specific considerations for users who require more attention when using certain types of building (for example, the majority of patient users of certain health facilities will experience temporary mobility challenges)? Are these sections dedicated to specific building types intended to be used in parallel with the code or is a separate regulatory body applicable? If so, are there cross-references made appropriately between and among relevant regulations and building codes? Are design requirements for specific building types coordinated between and among concerned authorities (such as the ministry in charge of construction and the ministries of health, education, or transport as applicable)?

Components	Description	Diagnostic Question
1. EXTERNAL ENVIRONMENT		
1.1 Access Routes		
<i>1.1.1 Pedestrian Infrastructure and Crossing</i>	<p>Pedestrian infrastructure includes but is not limited to sidewalks, trails, crosswalks, intersection designs, refuge islands, and other types of pedestrian routes.</p> <p>The pedestrian infrastructure provides separation from vehicles and cyclists.</p> <p>It also involves pedestrian crossings on approach to the building from the boundary of the site; these maximize independence for people with reduced mobility, and support safe navigation around the site for people with vision impairments.</p>	<p>(a) Does the code include provisions on the design, location, minimum clear width and height, surface materials, lighting, or any other accessibility features for the pedestrian infrastructure?</p> <p>(b) If the code does not contain such provisions, are they instead to be found in regulations issued by other agencies such as Ministry of Transport?</p> <p>(c) Does the code include provisions on the appropriate locations for and type of pedestrian crossings, the design of pedestrian crossings, including controlled and uncontrolled crossings, call buttons and alerts for controlled crossings, how the system caters for people with sensory disabilities, dropped kerbs, tactile paving, lighting, slip resistance, visual contrast, signage and road markings?</p>
<i>1.1.2 Shared Space</i>	<p>Shared spaces are typically a design approach used to minimize segregation between different transportation modes on roads; it can be applied within the built environment and building premises to minimize segregation between all types of user: pedestrians, cyclists and vehicular traffic.</p> <p>The manner in which pedestrians, particularly people with sensory disabilities, navigate the space and identify vehicular hazards is critical when providing shared spaces.</p>	<p>(a) Does the code include provisions on the appropriate locations, sizes, and guidance on the design of shared spaces to ensure safe and easily navigable spaces for all users (particularly people with sensory disabilities)?</p> <p>(b) Does the code provide methods to define the extent of shared space (signage, color, slip resistance surface materials, and so forth), safe junction design, navigation aids to persons with visual impairments, street furniture, hazard protection, surface materials, lighting, slip resistance, visual contrast, signage?</p>
<i>1.1.3 Accessibility Chain</i>	<p>An accessibility chain is a combination of different accessible features, for different types of disabilities, that allows a continuous, uninterrupted and barrier-free path for users to move seamlessly in the exterior and interior environments.</p>	<p>(a) Does the code provide information on the design of an accessibility chain, including provision of choice of lift and stairs (minimum) and/or escalators in circulation cores, nonsegregation of access routes and entrances, independently accessible access routes, access to the same facilities and amenities, dropped kerbs, and so forth?</p> <p>(b) Do the accessibility chain definition and provisions include features for different types of disabilities?</p>
<i>1.1.4 Level Access Routes, and Lifts/ Elevators</i>	<p>Level access on approach to a building provides the most accessible option for people with reduced mobility to gain safe and independent access into a building.</p> <p>External passenger lifts should be provided whenever there are significant changes in level within the building and built environment.</p> <p>This is because traversing significant level changes by ramp can be too tiring for wheelchair users and persons with reduced mobility, so an external passenger lift will ensure independent and equitable movement for all users.</p>	<p>(a) Does the code include provision(s) on the design of level access routes, including maximum gradient that constitutes a level route, clear width, passing points, edge protection, hazard warning for obstructions along the route, maximum comfortable travel distances (rest points along the route), surface materials, lighting, slip resistance, visual contrast, signage, and so on?</p> <p>(b) Does the code provide information on the rationale and provision of external passenger lifts, including design, ease of use, lift car types and sizes, lift car design (such as door opening widths, floor coloring, handrail design, mirror provision, lighting), lift landing design (such as maneuvering space in front of the lift, landing call button locations, visual contrast), tactile button design, audible and visual alerts (guidance of lift arrival on a floor) and the provision of an emergency two-way intercom fitted with an inductive coupler (thus compatible with hearing aids)?</p>

Components	Description	Diagnostic Question
1. EXTERNAL ENVIRONMENT		
1.1 Access Routes		
<i>1.1.5 Graded / Sloped Access Routes, and Ramps</i>	<p>Level changes on access routes on approach to a building should be avoided whenever possible. Where necessary, the level changes should be designed to be as shallow as possible to ensure that people with reduced mobility gain safe and independent access into a building.</p> <p>By contrast, steep level changes on approach to a building can be a barrier for people with reduced mobility seeking independent access into a building. Well-designed ramps should be provided when level access or graded routes cannot be offered.</p>	(a) Does the code include provisions on the design of gently sloped routes, including maximum gradient that constitutes a gentle slope or ramp, clear width, passing points, edge protection, hazard warning for obstructions along the route, provision of top, bottom, and intermediate landings on the slope flight, additional stepped access routes, handrails, surface materials, lighting, slip resistance, visual contrast, signage, and so on?
<i>1.1.6 Stepped Access Routes</i>	<p>Steep level changes on approach to a building can be a barrier for people with reduced mobility to achieve independent access into a building. Where graded/sloped access routes are provided, steps provide alternative access options to persons who may find ramped routes too tiring. Stepped routes should be provided in addition to alternative accessible routes.</p>	(a) Does the code include provisions on the design of stepped access routes, including minimum and maximum allowable riser height, tread length, flight height, clear width, top, bottom, and intermediate landings, design of handrails, hazard warning on the step flight including tactile paving, visually contrasting nosings, surface materials, lighting, slip resistance, visual contrast, signage, and so on?
<i>1.1.7 Gates and Security Barriers</i>	<p>Where gates and security barriers are required on access routes for the purposes of security or access control, it is important that these elements are designed to be suitable for all users, to ensure independent access and equity of experience for all users accessing the external environment.</p>	(a) Does the code include provisions on the appropriate locations and design guidance for gates and security barriers, including ease of use, positioning, clear opening widths, opening forces, height and location of opening furniture, how the system caters for people with sensory disabilities, design, visual contrast, button or lock types, audible and tactile controls, size of release buttons, associated signage?
<i>1.1.8 Hazards and Obstructions</i>	<p>Where hazards and obstructions are unavoidable on access routes, it is critical that they are suitably guarded to reduce the risk of slips, trips, falls, and collisions.</p> <p>Typical hazards and obstructions may include changes in level, protruding objects along the route, the building's equipment or mechanical components.</p>	(a) Does the code include provisions for hazard protection (for example, at drop-offs) including guarding design to include low-level tapping rail, balustrades, visual contrast, design of gratings on walkways?
<i>1.1.9 Covered or Shaded Walkways</i>	<p>The provision of covered or shaded walkways along access routes will provide protection from inclement weather for all users.</p>	(a) Does the code include provisions of a minimum percentage, location, or minimum length of covered or shaded walkways including minimum height and width, hazard warning for obstructions along the route, lighting, visual contrast, and so on?
<i>1.1.10 Exterior Surface Finishes</i>	<p>Well-designed pedestrian surfaces are critical for safe navigation through the built environment, and can reduce the risk of slips, trips and falls by addressing slip resistance, frictional characteristics of adjoining surface materials, visual contrast, avoidance of bold or confusing patterns, and so forth.</p>	(a) Does the code include provisions for exterior surface finishes (especially for pedestrian use), including the design of hard, smooth, firm and slip-resistant surface materials which are hard wearing and easily maintained, avoidance of highly reflective materials or confusing patterns, maximum crossfall gradient, drainage channel design, slip resistance especially when wet, visual contrast, and so forth?

Components	Description	Diagnostic Question
1. EXTERNAL ENVIRONMENT		
1.2 Arriving at a Destination		
1.2.1 Vehicular Parking	<p>Accessible vehicular parking may be on-street, off-street, multilevel car parking, plus accessible spaces for vans; it provides designated parking spaces, which are sized to facilitate ease of alighting, transfer, and circulation between adjacent vehicles for wheelchair users, and are conveniently located near accessible entrances. Accessible vehicular parking bays are generally provided as a ratio of the overall provision, which may be increased to accommodate certain specific uses (for example, increased accessible parking provision at hospitals).</p>	(a) Does the code provide information on the provisions for accessible vehicular parking, including methods of calculation, taking into account building use, and size; appropriate locations; information on adjacency to the main entrances, minimum provision in relation to full parking provision, minimum dimensions of bay including minimum vertical clearance, provision on firm and level ground, dropped kerbs, provision of marked access zones, signage, marking of parking spaces and access aisles, and so forth?
1.2.2 Accessible Electric Car Parking and Charging Stations	The provision of accessible electric car parking facilities allows equity of experience in travel options for all users, ensuring users utilizing accessible parking bays have access to vehicle charging points.	(a) Does the code include provisions for accessible electric car parking facilities, including appropriate locations, information on adjacency to the main entrances, minimum dimensions of bay including minimum vertical clearance, provision on firm and level ground, dropped kerbs, provision of marked access zones, positioning of charging point (height and location), maneuvering space around charging station, associated signage?
1.2.3 Drop-off Areas	<p>Drop-off areas allow users of a building to get close to the main entrance before alighting their vehicle. This is beneficial for all users, including people with reduced mobility, as it minimizes the travel distance to enter the building independently.</p> <p>Additionally, drop-off areas for larger vehicles accommodate a wider range of vehicles, including minibuses and larger ones that use hoists, ramps or tail-lifts.</p>	(a) Does the code include provisions for drop-off areas, including appropriate locations, number, information on adjacency to the main entrances, minimum dimensions including minimum vertical clearance, provision on firm and level ground, dropped kerbs, provision of coverings to protect from inclement weather, signage, and so on?
1.2.4 Parking Meters and Controls	Where parking meters and/or controls are required, it is important that these elements are designed to be suitable for use by all users, to ensure independent access and equity of experience for all users accessing the environment associated with vehicle parking.	(a) Does the code include provisions for parking meters, and/or controls, including appropriate locations, ease of use, positioning, control heights suitable for both standing and seated users, how the system caters for people with sensory disabilities, design, visual contrast, button/lock types, audible and tactile controls, size of release buttons, associated signage?
1.2.5 Public Transport Shelters	Accessible public transport shelters provide shade and protection from inclement weather for all users, enhance user experience and make the option of locally available public transport a viable transit choice for a wider range of users.	(a) Does the code include provisions for accessible shelters, including appropriate locations, wayfinding and signage elements, integrated alternative seating spaces for wheelchair, stroller and other mobility support tool users, clear access routes, good lighting and visibility, associated signage and so on?

Components	Description	Diagnostic Question
1. EXTERNAL ENVIRONMENT		
1.2 Arriving at a Destination		
1.2.6 Micromobility Infrastructure	<p>Dedicated cycle lanes used by any form of micromobility device, segregated from both vehicular and pedestrian routes, ensure a level of safety for riders and pedestrians by reducing risks of collision between riders and pedestrians, or riders and motorists.</p> <p>Parking for micromobility devices, including accessible bicycle parking, and parking for nonstandard bikes (cargo bicycles, bicycles with attached child carriers, tricycles, and so forth) allows a greater flexibility and equity of experience in travel options for all users.</p>	<p>(a) Does the code include provisions for micro mobility infrastructure (such as cycle/scooter lanes, and bicycle parking, including accessible bicycle parking spaces), including appropriate locations, appropriate ways of segregating cycle lanes from pedestrian and vehicular routes, and design requirements of cycle lanes such as segregation from pedestrian access routes, clear widths and heights, maximum crossfall gradient, drainage design, surface material design including use of color for definition of use, junction design, tactile warnings to ensure pedestrians do not inadvertently enter cycle lane, and so forth; or</p> <p>(b) Design guidance for accessible bicycle parking such as minimum dimensions, including minimum vertical clearance, provision on firm and level ground, dropped kerbs, provision of coverings to protect from inclement weather, signage, and so on?</p>
1.3 Common Use Facilities		
1.3.1 Street Furniture	Street furniture aids the comfortable use and navigation of the public realm for all users, including opportunities to rest, adequate refuse bins, signage, and wayfinding for navigation. All street furniture should be accessible for all users and designed in such a way as not to pose an obstruction to the route.	(a) Does the code include provisions for street furniture, including appropriate locations of street furniture (for example, beyond the boundary of access route), guarding design to include rounded edge profile where someone might bump into them, minimum heights, visual contrast, and so on.
1.3.2 Seating / Rest Points	Regular seating and rest points along access routes will ensure that users do not have to travel excessive distances to access the public realm.	(a) Does the code provide for seating points along access routes, including comfortable travel distances within the public realm, seating design such as widths, height range of seating, provision of seating with and without armrests and backrests, hard and soft seat covers, circulation spaces to and around seating, sufficient provision for wheelchair users, mobility aids and service dogs, covered seating areas and so forth?
1.3.3 Service Dog Relief Areas	<p>Service dog relief areas are essential to provide a place for service and assistance dogs to relieve themselves and have access to clean water.</p> <p>Please note that service dog relief areas may also be located inside public buildings.</p>	(a) Does the code include provisions for service dog relief areas, including appropriate type and locations, minimum maneuvering space to allow ambulant persons and wheelchair users to access, gate width, security fencing provision, drainage considerations, water supply provisions, lighting, slip resistance, visual contrast, signage, and so forth?
1.3.4 Accessible Public Toilets	The provision of accessible public toilets around larger sites and in public areas ensures greater flexibility and accessibility options for all.	(a) Does the code include provisions on access to accessible public toilet facilities, including appropriate locations, ambulant accessible and enlarged WC provision, independently accessible WC provision, provision of changing places facilities (see 4.1.8), security, signage, and so forth?
1.3.5 Inclusive Play Facilities	The provision of inclusive play areas ensures an equitable experience for all users including children with disabilities and older people.	(a) Does the code include provisions on inclusive play areas, including appropriate instances, maneuvering space to and through the play area, the provision of desegregated equipment for people of all ages and abilities, observation areas for parents and carers to facilitate passive supervision of play area, including seating and storage areas for wheelchair users, mobility aids, buggies, and so forth, and proximity to sanitary facilities?

Components	Description	Diagnostic Question
2. ENTRANCES, DOORS, AND LOBBIES		
2.1 Entering Buildings		
2.1.1 <i>Location of Entrances</i>	Accessible entranceways are important to give all users independent (autonomous) access to a building, and all its facilities, from key approach points (for instance, main pedestrian routes, entrances from vehicular parking and drop-off locations, staff entrances) and should be designed as such.	(a) Does the code include provisions for entering a building, including appropriate locations and numbers of accessible entry points required to independently enter the building, design of entrance points to the building from key points (for example, site boundary, parking areas, drop-off areas, public transport links and so forth), various types of entry points required for building types, and so forth?
2.1.2 <i>Entrance Landings</i>	Accessible entrance approaches and landings allow independent access to a building for all users and should be designed as such.	(a) Does the code include provisions for accessible entrance landing design, including appropriate locations and number of entrances depending on building size and use, an accessible route from key access points, designed to be easily identifiable, level landings at all entry points, surface materials and finishes and the relationship between internal and external surface finishes (for example, slip resistance, frictional characteristics), lighting provision, visual contrast, associated signage and wayfinding, and so forth?
2.1.3 <i>Access Control and Intercom Design</i>	Access control systems are required to maintain security, restrict access to intended user groups only, and maintain records of onsite personnel. Intercom systems allow for nonauthorized personnel to contact reception to gain entry to the building. All access control and intercom systems should be designed to provide independent access to the building for all users.	(a) Does the code include provisions for access control and intercom systems, including appropriate instances of the need for access control and intercom systems, design of those systems, such as ease of use, positioning (height and location), how the system caters for people with sensory disabilities, layout, dimensions, visual contrast, button types, audible and tactile, size of release buttons, associated signage?
2.1.4 <i>Canopy and Awning Design</i>	The provision of canopies or awnings at entrance doors will protect users from inclement weather, especially in instances where persons will have to pause to gain access to a building (for example, at access-controlled entrances).	(a) Does the code include provisions for canopies at entrances, including appropriate instances of the need to provide canopies or awnings at entrances, design such as appropriate heights, extension of canopy over entrance, and so forth?
2.2 Door Design (both external and interior doors)		
2.2.1 <i>Door Design – Door Widths, Thresholds, Heights, Door Opening Space, Vision Panels, and so forth.</i>	<p>Entrance doors: accessible doors for entrance and exit allow independent (autonomous) access to a building for all users and should be designed as such. Entrance doors may include revolving doors that have specific accessibility provisions.</p> <p>Interior doors: these may be subject to different provisions, depending on the building type and size. Accessible internal doors allow independent movement around the building and should be designed to facilitate use and autonomous transit for all users.</p> <p>Provisions for both categories of doors may be included in the same section.</p>	<p>(a) Does the code provide for accessible entrance doors, including appropriate type of entrance door (for example, generous width, automated doors, power-assisted, manual, and so forth), design of entrance doors, such as passage height and width, level thresholds, opening forces, leading edges, vision panels on solid doors, easy-to-use door hardware (ironmongery), handle installation height, visual contrast, associated signage, and so forth?</p> <p>(b) Does the code provide for accessible internal doors (including automated internal doors), including appropriate type of accessible internal doors (for example, width, automated doors, power-assisted, manual, and so forth); design of accessible internal doors, such as passage height and effective clear width, level thresholds, opening forces, leading edges, vision panels on solid doors, glazing manifestations and contrasting edges on glass leaves, easy-to-use door hardware, handle installation height, visual contrast, associated signage, and so forth?</p>

Components	Description	Diagnostic Question
2. ENTRANCES, DOORS, AND LOBBIES		
2.2 Door Design (both external and interior doors)		
<i>2.2.2 Manual, Power Assist and Automated Doors</i>	<p>The choice of provision of manual, power assist or automated entrance can greatly benefit the accessibility of the entrance or internal circulations; for example, if doors are heavy to open, then a power assist door or automated door may be required.</p> <p>Automated doors allow autonomous access and movement for all users, regardless of user's age, size or disability.</p>	(a) Does the code include provisions for manual, power assist or automated entrance or internal door systems, including appropriate type (for example, automated doors, power assisted, manual and so forth), design requirements such as clear passage height and width, level thresholds, opening forces, leading edges, vision panels on solid doors, glazing manifestations and contrasting edges on glass doors, easy-to-use door hardware, handle installation height, visual contrast, associated signage, and so forth?
<i>2.2.3 Glazing Design for Doors, Windows, and Walls</i>	<p>Well-designed manifestations and markings on glazed doors, windows and walls ensure they are easily identifiable and reduce the risk of collisions and confusion, especially for persons with vision impairments or neurological processing difficulties.</p> <p>Accessible window design allows independent control of ventilation, shade, and glare prevention for all users.</p>	<p>(a) Does the code include provisions on fully glazed windows, doors and sidelights, contrasting edges on fully glazed openings and markings, including information on the key areas where glazing manifestations and markings are required, such as full height glazing walls, edges of doors within glazed walls, leading edge of glazed doors, use of color, information on designing glazing manifestations and markings including heights and sizes of manifestations on glazed walls and doors, visual contrast, and so forth?</p> <p>(b) Does the code include provisions on accessible window design, including design criteria, such as height of controls for shutters or blinds, easy-to-use door hardware, handle installation height, visual contrast, requirements for restrictors or safety devices to prevent accidental falls from windows and so forth?</p>
2.3 Entrance Design		
<i>2.3.1 Entrance Lobby Design</i>	<p>Accessible entrance lobbies protect from inclement weather and should be designed to facilitate use and autonomous access for all users.</p>	(a) Does the code include provisions of entrance lobbies, including appropriate instances of the need to provide entrance lobbies, design of entrance lobbies, such as length and width, mat-well provision, visual contrast, lighting and so forth, diagrams to illustrate the varying configurations of accessible lobbies to aid in design, and calculations of access requirements?
<i>2.3.2 Turnstiles</i>	<p>Turnstiles are sometimes required to maintain security, restrict access to intended user groups only, and maintain records of onsite personnel. When turnstiles are provided, the needs of all users must be considered to ensure independent access is viable.</p>	(a) Does the code include provisions of turnstiles, including appropriate instances of the need to provide turnstiles, design of turnstiles, such as ease of use, approach routes, level thresholds, number of accessible lanes, clear widths, how the system caters for people with sensory disabilities, how the system caters for wheelchair users (for example, height and positioning of controls, lane widths and so forth), visual contrast, and associated signage?
<i>2.3.3 Information Points and Kiosks</i>	<p>Accessible kiosks and information points allow independent access to a building's facilities and information provision for all users, and should be designed to facilitate use and autonomous access for all users.</p>	(a) Does the code include provisions of accessible kiosks and information points; appropriate instances where accessible kiosks should be provided; design requirements, such as positioning (height and location), design, visual contrast, button types, information available via audible and tactile options, and so forth?

Components	Description	Diagnostic Question
3. HORIZONTAL AND VERTICAL ACCESS AND CIRCULATION		
3.1 Overall Movements		
3.1.1 <i>Reduced Distances</i>	In new designs, if the layout allows it, reduced or short distances to key areas or facilities in a building will ensure that users do not have to travel excessive distances to access the main facilities within a building.	(a) Does the code require placement of key facilities that entail comfortable journey distances, depending on building use and size (for example, accessible parking bays at the entrance, distance to circulation cores, distance to sanitary facilities, distance to lifts and so forth)?
3.2 Horizontal Circulation		
3.2.1 <i>Internal Security Controls</i>	Internal security control systems are required to maintain security, restrict access to certain areas for intended user groups only, and maintain records of onsite personnel.	(a) Does the code include provisions for internal access controls, including appropriate instances of the need to provide internal access controls; design of internal access control, such as ease of use, positioning (height and location), how the system caters for people with sensory disabilities, visual contrast, button types, audible and tactile, size of release buttons, and associated signage?
3.2.2 <i>Corridors and Aisles/Passageways</i>	Accessible corridors and aisles/passageways through open plan areas allow independent movement around the building and should be designed to facilitate use and autonomous transit for all users.	(a) Does the code include provisions for accessible corridors and aisles/passageways, including design such as clear passage height and width, turning areas and passing places, provision of splayed or radius corners on routes, floor finishes, slip resistance, lighting, avoiding glare, storage of equipment out of circulation routes, avoiding confusing patterns that can be confusing, avoiding doors opening directly out on to circulation routes, hazard protection and so forth?
3.2.3 <i>Interior Surface Finishes</i>	Interior floor surfaces and finishes are critical for the safe design of the built environment, and comply with slip resistance requirements, especially where a floor is expected to be wet (entrances, shower rooms, and so on). Good design also ensures that persons with vision impairments or neurological processing difficulties can easily navigate a space without confusing patterns or reflective surfaces.	(a) Does the code include provisions for interior surfaces and finishes (for example, floors), including designing floor surfaces and finishes such as slip resistance, especially when wet, color, texture, avoiding confusing patterns—particularly in areas where visual acuity is critical, design of mat-wells, meeting the needs of neurodiverse people and people with visual impairments, and consistency in frictional characteristics of adjoining surface materials, visual contrast, and so forth?
3.2.4 <i>Moving Walkways</i>	Moving walkways can provide an easily accessible option for users, including persons with reduced mobility, to navigate small level changes and traverse large distances. However, they are not generally considered wheelchair accessible, therefore an alternative accessible option is required.	(a) Does the code provide for appropriate moving walkways, depending on building use and size, including their design, such as landings, visual contrast (including handrails, and so forth), guarding, alternative accessible route and signage to same, signage including directional signage, and audible warnings?
3.3 Vertical Circulation		
3.3.1 <i>Passenger Lifts/Elevators</i>	The provision of accessible and easy-to-use passenger lifts ensures independent and equitable movement between all levels and facilities in a building for all users.	(a) Does the code provide for appropriate passenger lifts, depending on building use and size, including design aspects such as ease of use, lift car types and sizes, lift car design (including door opening widths, floor coloring, handrail design, mirror provision, lighting, and so forth), lift landing design (including maneuvering space in front of the lift, landing call button locations, visual contrast, and so forth), tactile button design, audible and visual alerts of lift arrival on a floor, provided both within the lift car and on all lift landings, and the provision of an emergency two-way intercom fitted with an inductive coupler and visual display, and signage for any hearing and visual assistance systems?

Components	Description	Diagnostic Question
3. HORIZONTAL AND VERTICAL ACCESS AND CIRCULATION		
3.3 Vertical Circulation		
3.3.2 <i>Steps and Stairs</i>	<p>The provision of well-designed stairs suitable for ambulant users of different abilities and ages will encourage the use of stepped routes while reducing the risk of slips, trips and falls, or excessive strain.</p> <p>Where level changes are unavoidable within a floor of a building, well-designed steps must be provided, as well as an additional accessible access route.</p>	(a) Does the code include provisions for stairs suitable for ambulant users of different abilities and ages, including design of suitable stairs, such as width, riser height, going width, overall flight height, flight design (straight, spiral, helical flights and the appropriateness and accessibility of each), step profile design, visually contrasting step/luminance contrast, nosings, handrail design, lighting design, surface finish design and slip resistance, tactile walking surface indicators (TWSI) as a warning at the top of stairs where unenclosed or where there is an entry into the stair system?
3.3.3 <i>Internal Graded Routes</i>	Where small level changes are unavoidable within a floor of a building, the change in level should be designed to be as shallow as possible to ensure people with reduced mobility gain safe and independent circulation throughout the building.	(a) Does the code include provisions for graded (sloping) routes, including design such as maximum gradient that constitutes a graded route, clear width, passing points, edge protection, hazard warning for obstructions along the route, provision of top, bottom, and intermediate landings on the slope flight, surface materials, lighting, slip resistance, visual contrast, signage, and so forth?
3.3.4 <i>Internal Ramps</i>	Where level changes are unavoidable within a floor of a building, the provision of well-designed internal ramps ensures independent and equitable movement throughout all levels and facilities in a building for all users.	(a) Does the code include provisions for ramps, including design of ramps, such as the minimum and maximum allowable gradients and ramp flight lengths, the provision of top, bottom, and intermediate landings on the ramp flight, clear width, edge protection, surface materials, slip resistance, lighting, handrails, guards at drop-offs for safety, color/luminance contrast, and so on?
3.3.5 <i>Escalators</i>	Escalators can provide an easily accessible option for users, including persons with reduced mobility, to navigate level changes. However, they are not generally considered wheelchair accessible, therefore an alternative accessible option is required.	(a) Does the code provide for appropriate escalators, depending on building use and size, including design of escalators such as top and bottom landings, guarding, travel speed, alternative accessible route and signage to same, signage including directional signage.?
4. BUILDING FACILITIES		
4.1 Rooms and Spaces within Buildings		
4.1.1 <i>Reception Areas and Service Counters</i>	Accessible reception areas and service counters create a welcoming and inclusive experience for persons of different ages, abilities, heights and other features. This is where anybody can get information about the building and its services, or other assistance.	(a) Does the code include provisions for one or more reception areas, including: appropriate and accessible locations for reception areas and service counters at the various entry points to the building; their design, such as seating and waiting areas, maneuvering space throughout the area, (including around the desk, for both visitors and staff), desk design (heights to suit seated and standing users, knee recesses and so forth), maximum and minimum lighting conditions to facilitate communication (sign language, lip-reading), the use of technology (for example, audible aids, accessible sign-in options); queuing layouts; and is signage provided when hearing enhancement systems are offered?

Components	Description	Diagnostic Question
4. BUILDING FACILITIES		
4.1 Rooms and Spaces within Buildings		
4.1.2 Audience and Spectator Facilities (Auditoriums)	<p>Audience and spectator facilities (auditoriums) provide a dedicated space for large-scale presentations, lectures, seminars and events for staff and visitors.</p> <p>These should be designed to provide an equitable visitor and presenter experience for all users, facilitating comfortable and convenient access to information being presented, and also enabling any user to make a presentation.</p>	(a) Does the code cover auditoriums, and the design of audience and spectator facilities, specifying seating type, number of special spaces (for example, for those in wheelchairs or with mobility assistance), companion seating, dispersion and integration, aisle widths, circulation spaces to and around seating, sufficient provision for wheelchair users, mobility aids, use of service dogs, accessible access to podiums or stages, access to power sockets (for charging assistive equipment), visual contrast, signage, provision of hearing enhancement systems, sign language interpreters, and accessible audiovisual equipment and accessories that help people with hearing and visual impairments?
4.1.3 Refreshment Facilities – Tea Stations, Kitchenettes, Cafes, Bars, and Restaurants	The design of accessible refreshment facilities, including tea stations, kitchenettes, cafes, bars and restaurants ensures independent and equitable access to facilities and amenities in a building for all users in their dining experience.	(a) Does the code include provisions for refreshment facilities (for example, tea stations, kitchenettes, cafes, bars and restaurants facilities) including design requirements, such as access to self-service or counter service areas (height, depth, knee recess), routes along self-service/cafeteria areas, integration and dispersion at dining and drinking surfaces for seated users, alternative communication options at reception areas, ordering and checkout counters for persons with hearing or visual disabilities, menu accessibility, table seating accessibility, and so forth?
4.1.4 Meeting Rooms	Meeting rooms allow users dedicated space to conduct meetings, interviews, focused work sessions and so forth in privacy, and without undue distraction. Meeting rooms should be designed to be accessible and allow independent use by all users.	(a) Does the code include provisions for meeting rooms, including design requirements such as unobstructed maneuvering space within rooms, seating types, space to accommodate wheelchair users, work surface height, knee recess, access to power sockets, visual contrast, signage (for wayfinding, information, safety), provision of hearing enhancement systems, and/or other accessible audiovisual equipment and accessories, and so forth?
4.1.5 Workspaces	The provision of accessible workplaces ensures independent and equitable access to facilities and amenities in a building for all users.	(a) Does the code include provisions for accessible workspaces, including design of accessible workspaces (circulation routes, work surface height, knee recess, identification of such spaces); convenient use of all amenities (power sockets, adjustable lighting, storage space); and where isolation pods are provided, access into and out of the pod?
4.1.6 Quiet Rooms	Quiet rooms are provided in public facilities of large capacity (transport terminals, airports, shopping malls), to ensure that persons with sensory or neurological processing difficulties can use a designated retreat space if experiencing a sensory overload.	<p>(a) Does the code include provisions for quiet rooms or spaces and information on the most appropriate instances where they should be provided?</p> <p>(b) Does the code provide design requirements for quiet rooms, including location throughout a building, unobstructed maneuvering space within rooms or areas to accommodate wheelchair users, acoustic provisions, adjustable lighting, seating types, privacy controls, access to power sockets, and so forth?</p>
4.1.7 Prayer Room (Multifaith Facilities)	The provision of a multifaith prayer room allows people of all faiths a space to reflect and pray.	(a) Does the code provide for multifaith prayer rooms or facilities, including appropriate instances where multifaith facilities should be provided; design guidance such as separate entrances, enclosed storage space and shoe rack, adjoined or adjacent facilities for ablutions including sunken trough, height-adjustable seating, handrails, easy-to-use taps and controls, visual contrast, signage, and so forth?

Components	Description	Diagnostic Question
4. BUILDING FACILITIES		
4.1 Rooms and Spaces within Buildings		
<p><i>4.1.8 Family Facilities, Including Changing Facilities for Babies and Adults, Feeding Rooms, and Family Toilets</i></p>	<p>The provision of changing facilities (including diaper changing spaces), feeding rooms, and family/companion toilet facilities ensures independent and equitable access to facilities and amenities in a building for all users.</p> <p>Note that some codes may refer to baby changing tables in men's or women's toilets, rather than in a separate room.</p> <p>People with specific disability types may require larger sanitary facilities in public buildings of large capacity, answering to more complex accessibility needs of adult users and carers. This larger room will have a bigger area with a WC, washbasin, and changing table of adult size. Some also specify the use of a hoist to assist transferring the person to and from the wheelchair or other mobility devices and other additional accessories.</p>	<p>(a) Does the code include provisions for changing facilities (including diaper changing spaces), feeding rooms and family/companion toilet facilities?</p> <p>(b) Does the code provide design guidance such as of baby changing tables as accessible work surfaces (reach needed for opening/closing operation, height, knee clearance, maneuvering clearance); and adult changing table for assisted toileting and changing (maneuvering clearance, surface of sufficient size and capacity for an adult, surface at transfer height, access to controls for care giver if adjustable in height) and room requirements, (turning space, signage, hand-wash facilities, waste receptacles)?</p> <p>(c) Does the code provide design guidance for feeding space including appropriate furniture and turning space?</p> <p>(d) Does the code provide design guidance for family/companion toilet rooms including turning space within the room, accessible toilets and lavatories (see toilet room provisions), tip-up (folding) seats for small children, signage, and so forth?</p> <p>(e) Does the guidance provide information on the design of gender-neutral and accessible baby/child changing facilities, including height-adjustable changing bench accessible for standing and seated users, tip-up seat for small children, hand-wash facilities, handrails, easy-to-use taps and controls, visual contrast, signage, and so forth?</p> <p>(f) Does the code include provisions on larger sanitary facilities for complex accessibility needs considering: appropriate number and locations; design requirements such as minimum room dimensions, minimum door widths and heights, maneuvering space on approach and within room, seat and pan heights, handrails and grab bars, alarm provision (assistance alarm and audiovisual fire alarm), door design including locking mechanism, changing bench provision, showering provision, lighting, slip resistance, visual contrast, signage, hoists?</p>
<p><i>4.1.9 Gym, Sports, and Recreation Facilities</i></p>	<p>The provision of accessible gym, sports, and recreation facilities ensures independent and equitable access to facilities and amenities in a building for all users.</p>	<p>(a) Does the code provide for accessible gym, sports, and recreation facilities, including design requirements such as access to the playing surfaces (including being able to switch sides on a court where it is part of the game), team/player seating, transfer space and storage for wheelchairs (for example, when a player transfers from standard wheelchair to sports wheelchair).</p>
<p><i>4.1.10 First-Aid Room</i></p>	<p>An accessible first-aid room ensures equitable access to all users to health and safety provision in a building.</p>	<p>(a) Does the code provide for accessible first-aid facilities, including appropriate instances where accessible first-aid facilities should be provided; design requirements such as unobstructed maneuvering space within rooms, space to accommodate wheelchair users, height-adjustable examination couch (table), door opening widths and internal room configuration to accommodate stretchers, area to treat seated patients, and so forth?</p>

Components	Description	Diagnostic Question
4. BUILDING FACILITIES		
4.1 Rooms and Spaces within Buildings		
<i>4.1.11 Accessible Bedrooms and Sleeping Spaces</i>	Where sleeping accommodation is provided (for example, hotel rooms, guestrooms, medical staff on-call rooms), accessible provision is essential to ensure an equitable experience for all users. All associated facilities (for example, ensuite facilities) should be accessible.	<ul style="list-style-type: none"> (a) Does the code provide for accessible sleeping accommodation, including for persons with hearing impairments (for example, visible alarm systems, visual doorbells, and peepholes)? (b) Does the code include: the appropriate locations and ratio of accessible sleeping accommodation; design requirements such as space design (door clearances, a turning space in the room, maneuvering clearances to amenities, space next to the bed for transfer or the use of a hoist lift, access to an electrical outlet for wheelchair charging) and associated sanitary facilities (see the provisions for accessible toilet and bathing facilities)?
<i>4.1.12 Charging and Storage for Mobility Aids, Scooters and Baby Strollers</i>	The provision of a dedicated space for mobility scooters, mobility aids, and baby strollers to park, with power outlets to facilitate charging if required, allows persons using mobility aids and carers of small children greater flexibility and accessibility options when accessing the building.	<ul style="list-style-type: none"> (a) Does the code provide for parking areas with charging points for mobility scooters, including appropriate locations within the building (or site), design guidance such as widths, clear transfer areas, coverings on external parking areas, security, signage, and so forth?
<i>4.1.13 Seating Arrangement</i>	<p>The provision of accessible and varying seating types ensures independent and equitable access to seating facilities in a building for all users.</p> <p>Accessible seating provision may include, but is not limited to: assembly areas, auditoriums, sport facilities, and lecture halls; these may be interior or exterior.</p>	<ul style="list-style-type: none"> (a) Does the code include provisions for general seating (including varying seating types), including appropriate instances where general seating should be provided; design requirements such as seats with and without armrests and backrests, hard and soft seating options, seats of varying heights, seating to facilitate wheelchair transfer, seating layouts to allow spaces for wheelchair users and mobility assistance (such as service dogs) to sit clear of circulation routes, circulation route widths, line of sight, and so forth?
4.2 Toilet Facilities		
<i>4.2.1 Accessible Toilet Rooms in the Men/Women clusters</i>	Offering choices and flexibility is crucial to the provision and design of toilet facilities within the Men/Women toilet clusters, such as a variety of toilet facilities, including ambulant cubicles, and wheelchair-accessible cubicles.	<ul style="list-style-type: none"> (a) Does the code include provisions on location, types, and numbers of toilet facilities, including ambulant cubicles, accessible cubicles, and gender-neutral facilities within a building? (b) Does the code specify the location of the WC, washbasin, maneuvering space, controls and accessories, minimum area, minimum door width, handrails and grab bars and so forth? If not, what regulations do? And are the latter regulations cross-referenced in the code?
<i>4.2.2 Accessible Individual Toilet Rooms</i>	<p>The provision of gender-neutral and accessible toilet rooms that can be directly accessible without going into the Men/Women toilet clusters is important.</p> <p>Having gender-neutral toilet facilities with accessible designs outside of the Men/Women toilet cluster will suit a wide variety of users and thus ensure an equitable experience for all in the building.</p> <p>For the provision of toilets that are large enough for adult complex accessibility needs, please refer to Section 4.1.8 on Family Facilities.</p>	<ul style="list-style-type: none"> (a) Does the code provide design guidance on gender-neutral accessible toilets, including: appropriate number and locations of gender-neutral and accessible toilets; minimum room dimensions, minimum door widths and heights, maneuvering space on approach and within room, seat heights, handrails and grab bars provision, alarm provision (assistance alarm and audiovisual fire alarm), door design including locking mechanism, lighting, slip resistance, visual contrast, signage, and so forth? (b) Do the code or associated standards include provisions on design of lighting, slip resistance, visual contrast; and design, installation and testing for alarm systems?

Components	Description	Diagnostic Question
4. BUILDING FACILITIES		
4.2 Toilet Facilities		
4.2.3 Showering, Bathing and Changing Facilities	<p>Offering choice and flexibility is key in the provision and design of bathing and changing facilities within a building to ensure that all users, regardless of age, size or disability, have access to the same provisions.</p> <p>Bathing facilities may include bathtubs and different showering layouts such as transfer or roll-in.</p> <p>Where changing facilities are provided, integrating accessibility features into communal changing facilities—in addition to the provision of separate gender-neutral and accessible changing and showering facilities—will offer a greater choice to a wider range of users.</p>	<p>(a) Does the code include provisions for gender-neutral bathing and changing facilities?</p> <p>(b) If not, what regulations do? And are those regulations cross-referenced in the code?</p> <p>(c) Do provisions for gender-neutral bathing and changing facilities include appropriate number and locations; appropriate instances of the need to provide such facilities, depending on building size and use; and design requirements such as maneuvering space, bench to transfer to changing space/area (for example, clear floor space, height, size, stability), shower compartment size, shower control design, seat heights, handrails and grab bars provision, alarm provision (assistance alarm and audiovisual fire alarm), lighting, slip resistance, visual contrast, signage, level access to roll-in showers, and so forth?</p>
5. BUILDING FIXTURES AND FITTINGS		
5.1 Wayfinding and Signage	The aim of the signage is to help users of all abilities to find their way inside the building and in the vicinity, as well as the location and use of accessible spaces and services.	(a) Does the code specify wayfinding and signage to and throughout the building; key areas where signage must be provided en route to and within a building; requirements on signage and wayfinding such as heights and sizes of signage, use of symbols, design of arrows, visual contrast, Braille and tactile lettering, and so forth?
5.2 Visual Contrast	Visual contrast helps all people, particularly persons with visual impairments, to identify objects within buildings and to provide spatial information to persons with visual impairments.	(a) Does the code include provisions related to visual contrast, including how to test visual contrast (for example, light reflectance value—LRV—testing); key areas where visual contrast must be addressed within a building; visual contrast in both wet and dry conditions, and in all lighting conditions, use of color, and so forth?
5.3 Lighting	Lighting on the exterior and interior of buildings, from entrances to circulation areas and rooms, should be designed in such a way that it does not create a barrier for visually impaired people, and should be evenly distributed to eliminate reflections, shadows, and glare, and to provide aids for wayfinding.	(a) Does the code include provisions on lighting, including appropriate lighting levels required for different functions and use of rooms/spaces; key design elements for accessible lighting (for example, lighting levels, glare, avoiding shadows, reflections); key locations where accessible lighting is of critical importance throughout the building and on approaches; testing and commissioning of lighting within a building?
5.4 Acoustics	Considering acoustics in buildings and public spaces ensures a more inclusive environment where persons with sensory or neurological processing difficulties, persons with heightened sensitivity to noise, or persons who are overwhelmed, can access a designated breakaway space (this will also offer a quieter area where persons with hearing impairments can comfortably converse).	(a) Does the code include design guidance on acoustics, including identifying key areas where noise reduction is required (where communication is paramount), intrusive noise sources, sound insulation, and so forth?

Components	Description	Diagnostic Question
5. BUILDING FIXTURES AND FITTINGS		
5.5 Audible/Hearing Enhancement Systems	The provision and design of hearing enhancement facilities assists persons with hearing impairments to hear and understand spoken and recorded sound or information, and are required where communication is key, such as lecture theatres, public address (PA) systems, ticket booths, performance areas, or sporting events.	(a) Does the code specify what type of audible/hearing enhancement system suits a given use of space (including portable options too); key locations where hearing enhancements should be provided within a building; importance of the provision of signage when installing hearing enhancement systems?
5.6 Switches, Controls and Outlets	Access to convenience power outlets allow users a greater accessibility and flexibility of use within a building, for charging of phones and laptops, charging of mobility aids, assistive technology, control of lighting and heating options, and so forth.	(a) Does the code include provisions for switches and controls for operation by the room occupants and users? (b) Does the code provide design requirements such as installation height, proximity to corners, reach range of users accessing sockets across counters or desktops, and so forth, ease of use, suitability for use by persons with visual impairments, or limited strength or dexterity, and does the code consider visual contrast, size of switches, and so forth?
6. EVACUATION AND SAFE EGRESS		
6.1 Evacuation Routes	The building layout design must consider accessible evacuation routes, free of obstacles.	(a) Does the code include provisions for accessible evacuation routes? (b) Does the code include provisions for the layout and design of accessible evacuation routes, considering accessible horizontal and vertical circulation?
6.2 Emergency Exits	The provision of accessible emergency exits ensures safe and independent, and/or assisted rescue egress for all users in the event of an emergency evacuation.	(a) Does the code include provisions for accessible emergency exits? If not, which regulations do? And are the latter regulations cross-referenced in the code? (b) Does the code specify appropriate locations for emergency exits from the building, including travel distances; design of emergency exits including clear passage height and width, level thresholds, vision panels on solid doors, easy-to-use door hardware, handle installation height, visual contrast, associated signage, and so forth?
6.3 Evacuation Lifts/Elevators	The provision of accessible evacuation lifts/elevators ensures safe and assisted egress for all users in the event of an emergency evacuation.	(a) Does the code provide for evacuation lifts? If not, what regulations do? And are the latter regulations cross-referenced in the code? (b) Does the code specify appropriate evacuation lifts/elevators criteria depending on building use and size; design of lifts used for assisted evacuation including signage explaining the assisted evacuation plan, two-way communication between emergency responders and persons needing assistance (including visual and hearing enhancement systems), standby power systems for the elevator, and fire department monitoring of the elevator shaft and system?
6.4 Emergency Equipment	The provision of accessible emergency evacuation equipment will aid in the safe evacuation of persons of different abilities and ages in the event of an emergency evacuation where level egress is not possible.	(a) Does the code include provisions for emergency evacuation equipment? If not, what regulations do? And are these regulations cross-referenced in the code? (b) Does the code provide for emergency evacuation equipment in line with established emergency evacuation protocols, including equipment types and numbers, positioning, key locations, signage, training, and testing, and so forth; and training on and testing of the device or evacuation chair—both for the person using it and multiple people to assist?

Components	Description	Diagnostic Question
6. EVACUATION AND SAFE EGRESS		
6.5 Visual / Audible Alarms	The provision of visual and audible alarms ensures all users, including people with visual impairments and people with hearing impairments will be alerted in the event of an emergency evacuation.	<ul style="list-style-type: none"> (a) Does the code include provisions for audible and visual alarms? If not, what regulations do? And is this guidance cross-referenced in the code? (b) Does the code specify appropriate key locations for positioning of audible and visual alarms and their required functions and performance?
6.6 Emergency Signage	The provision of accessible and universally understood emergency signage will ensure safe and independent and/or assisted egress for all users in the event of an emergency evacuation.	<ul style="list-style-type: none"> (a) Does the code specify emergency signage? If not, what regulations do? And are these regulations cross-referenced in the code? (b) Does the guidance provide information on the appropriate locations for positioning of emergency signage? (c) Does the guidance provide information on the design of emergency signage including positioning, legibility, use of internationally recognized symbols and design, illumination on signage, visual contrast, and so forth?
6.7 Refuge Areas	The provision of accessible refuge areas will ensure a protected place of safety for persons of different abilities and ages to await assistance in the event of an emergency evacuation where level egress is not possible.	<ul style="list-style-type: none"> (a) Does the code include provisions on refuge areas? If not, what regulations do? And are these cross-referenced in the code? (b) Does the code cite appropriate locations for refuge areas; design of refuge areas including positioning, minimum clear space required, including requirements for location within protected cores, ease of use, positioning of two-way communication systems or call buttons (height and location relative to corners), button design (size, type, tactile indicators), how the system caters for people with sensory disabilities, associated signage, and so forth?

Appendix A: Examples of Implementation Policy

The integration of universal accessibility provisions into the building codes of countries (or the development of specific universal accessibility codes) is only the first step toward a safe and inclusive built environment for all. The next step is to develop policies and plans that ensure compliance, by designers, architects, builders, building owners and users, and all other stakeholders involved in the development and use of the built environment.

To illustrate it, this appendix presents a number of successful policies and practice examples distilled from desk research on 21 countries across nearly all regions:

- **Africa:** Ethiopia, Ghana, Uganda
- **Asia:** India, Japan, Singapore, Vietnam
- **Europe:** Croatia, Estonia, Germany, Spain, The Netherlands, United Kingdom
- **North America:** Canada, United States

- **South America:** Argentina, Chile, Brazil, Ecuador, Bolivia, Peru

The desk research identified six main types of policy that have advanced universal accessibility in the built environment, and examples of good practices associated with each. The six categories, divided in two blocks, *Incentives* and *Enabling Environment*, are presented in **Figure 5**.

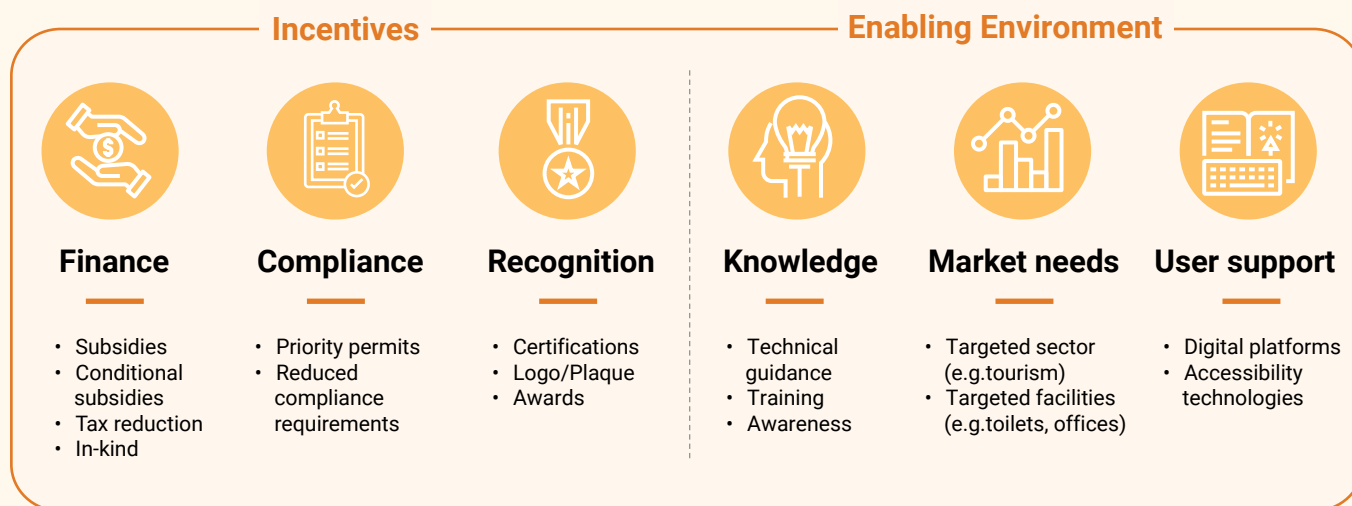
A. Incentives

The incentives for compliance (with universal accessibility code requirements and provisions) center around financial benefits, nuanced compliance requirements, and public recognition.

A.1. Financial

These include **subsidy programs** to financially incentivize building owners, conditional

Figure 5. Types of policy to advance Universal Accessibility and examples of good practices



Source: Developed by authors.

financial incentives for buildings to meet Universal Accessibility criteria, tax reduction, and in-kind support.

The Singapore Accessibility Fund (**Figure 6**),²² the Accessible Housing Demonstration Grant Program in the State of Illinois (US)²³ and the Accessible India Campaign²⁴ provide

financial support at country- or state-level to include specific accessibility features in public or private buildings such as accessible toilets, electrical outlets, and so forth. India has provisions for funding accessibility improvements through SIPDA—Scheme for Implementation of the Rights of Persons with Disabilities Act—for public-sector buildings.²⁵

²² Building Construction Authority. 2007. The Accessibility Fund. Singapore: <https://www1.bca.gov.sg/buildsg/universal-design/accessibility-fund>. The Singapore's BCA Accessibility Fund provides financial support to owners of existing private buildings to upgrade their premises with accessibility features such as ramps, accessible toilets, grab bars, and braille/tactile signs.

²³ Illinois Housing Development Authority. 2001. Housing Demonstration Grant Program. Illinois, United States: <https://www.ilga.gov/commission/jcar/admincode/047/04700368sections.html>

²⁴ National Portal of India Government. n.d. Accessible India Campaign. India: <https://www.india.gov.in/spotlight/accessible-india-campaign#tab=tab-1>

²⁵ Scheme for Implementation of the Rights of Persons with Disabilities Act, 2016 (SIPDA), India: <https://depwd.gov.in/sipda/>.

Figure 6. The Accessibility Fund in Singapore

The Accessibility Fund
Provides grant to owners of private buildings to improve the accessibility of their existing buildings. Available till end March 2027.

Building and Construction Authority

For Private Buildings built before the Implementation of Code on Barrier Free Accessibility in Buildings 1990
up to **80%** co-funding for Accessibility Features (*Refer to examples behind)

For Private Buildings built before the Implementation of Code on Accessibility in the Built Environment 2013
up to **60%** co-funding for Other Accessibility Features (*Refer to examples behind)

Who Can Apply?

- Private building owners
- Lessors with ownership rights
- Lessees with owners/lessors' approval

Source: Building Construction Authority, Singapore.

The state of Minnesota²⁶ and the city of Atlanta (Georgia)²⁷ in the US, provide funding for housing to meet the visitability criteria.²⁸ Further examples of financial incentives in the US include **tax benefits** in Virginia (Figure 7), Georgia, Southampton, and Pittsburgh.

The Government of Japan²⁹ offers **conditional subsidized housing loans** to building owners who purchase housing including selected accessibility criteria (Figure 8).

²⁶ Officer of the Revisor of Statutes. 2023. 2023 Minnesota Statutes: 462A.34 Visitability Requirements. Minnesota, United States: <https://www.revisor.mn.gov/statutes/cite/462A.34>

²⁷ The Center for an Accessible Society. 2023. "Visitability" Bill introduced in Congress. United States: <http://www.accessiblesociety.org/topics/housing/visitability.html>

²⁸ In the US, a house is considered 'visitible' when it meets three basic requirements: (i) one zero-step entrance; (ii) doors with 32 inches of clear passage space; and (iii) one wheelchair-accessible bathroom on the main floor.

²⁹ World Bank. 2016. Converting Disaster Experience into a Safer Built Environment – The Case of Japan: <https://thedocs.worldbank.org/en/doc/162361520295760910-0090022018/original/jppublicationdrmhbtokyoconvertingdisasterexperienceintoasaferbuiltenvironment.pdf>

Figure 7. The Virginia Liveable Homes Tax Credit program

About the Program

The Virginia Liveable Home Tax Credit (LHTC) program is designed to improve accessibility and universal visibility in Virginia's residential units by providing state tax credits for the purchase of new homes or the retrofitting of existing homes. The tax credit provides for the purchase/construction of a new residence and 50 percent of the cost of retrofitting activities not to exceed \$5,000. Any tax credit that exceeds the eligible individual's or licensed contractor's tax liability may be carried forward for up to seven years. If the total amount of approved credits exceeds \$1 million in a given year, DHCD will pro rate the amount of credits among eligible applicants.

Eligibility

Individuals or licensed contractors filing Virginia individual income tax returns who have incurred costs for the purchase/construction of new residential homes with accessibility or universal visibility features or for the retrofitting of residential homes with these features. In no case shall any tax credit be issued more than once to the same or different persons relating to the same purchase, retrofitting, renovation or construction project.

- In order for the purchase/construction of a new residence to qualify for tax credits, it must include the three features of universal visibility or include at least three accessibility features and meet the requirements of an existing standard.
- Retrofitting of an existing residential home must include at least one accessibility feature (e.g. sensory modifications, chair lifts, elevators, etc.), must be a permanent part of the structure of the residential unit and meet the requirements of an existing standard in order to qualify for tax credits.

Accessesibility

Accessible housing standards vary depending on whether the unit is new or if an existing unit is being retrofitted to provide accessibility. Accessibility features that meet existing standards include:

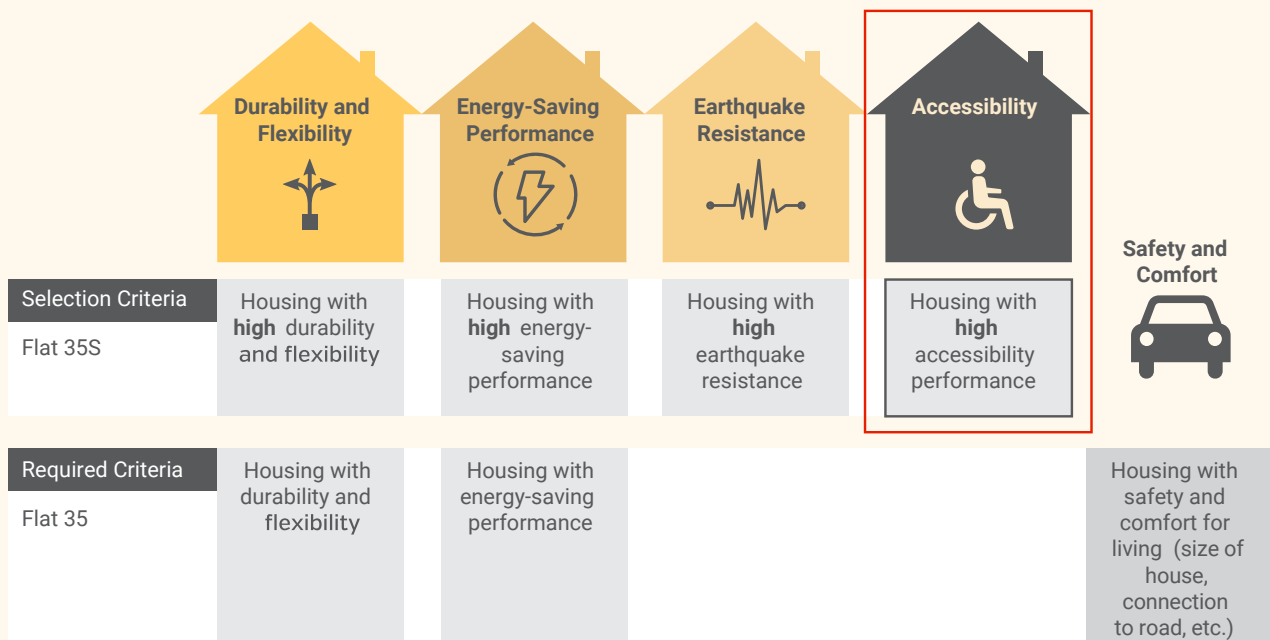
- At least one zero-step entrance approached by an accessible route on a firm surface no steeper than 1:12 slope proceeding from a driveway or public sidewalk.
- Zero-step entrance
- Doors with at least 32 inches of clear width
- Hallways and passages with at least 36 inches of clear width
- Accessible light switches, electrical outlets and environmental controls
- Accessible bathroom
- Accessible and useable kitchen facilities

Application Process

Applications are to be filed and received by DHCD by Jan. 31 of the year following the year in which the purchase or retrofitting was completed. Documentation must be submitted with the application. In the case of the purchase/construction of a new residential home, a copy of the floor plans, closing disclosure statement, certificate of occupancy, building permit, etc. must be attached. In the case of retrofitting, before and after pictures, copies of the scope of work, construction contracts documenting the type work and costs (invoices, bank canceled checks, etc.) must be attached. Applications can be found online at dhcd.virginia.gov/LHTC.

Source: [Virginia DHCD](http://VirginiaDHCD).

Figure 8. Criteria for subsidized housing loans in Japan



Source: Adapted from World Bank (2016). Converting Disaster Experience into a Safer Built Environment – The Case of Japan.

The Government of Rio de Janeiro, Brazil goes one step further with the *Moradia e Acesso* program,³⁰ providing both **financial support and technical assistance** for housing reforms (**Figure 9**) for children and youth with disabilities living in poor conditions.

A.2. Compliance Incentives

Additionally, some governments offer **priority permits and reduced compliance fees** as incentives. In Southampton (US), the local Building Inspection Authority provides reduced permit fees and “fast track” building permit application to owners or builders opting to

include “Basic Access” features that aid persons with mobility impairment.³¹

To ensure efforts toward Universal Accessibility are not compromised, Singapore put in place a **mechanism for managing the misuse of incentives** in 2018, when the Building Control Act was amended to place a duty on a building’s owners to continue to maintain the accessible features in their buildings.

A.3. Recognition

To encourage the market to take up integration of universal accessibility provisions, there are a

Figure 9. Housing reforms, Moradia e Acesso program, Rio de Janeiro



Source: RIOincluir.

³⁰ RIOincluir. 2023. *Programa Moradia e Acesso*. Rio de Janeiro, Brazil: <https://www.rioincluir.org.br/programa-moradia-e-acesso/>

³¹ Southampton Town Disability Advisory Committee. 2020. Basic Access Guide: <https://www.southamptontownny.gov/DocumentCenter/View/1493/BasicAccessGuide-WEB-PDF>

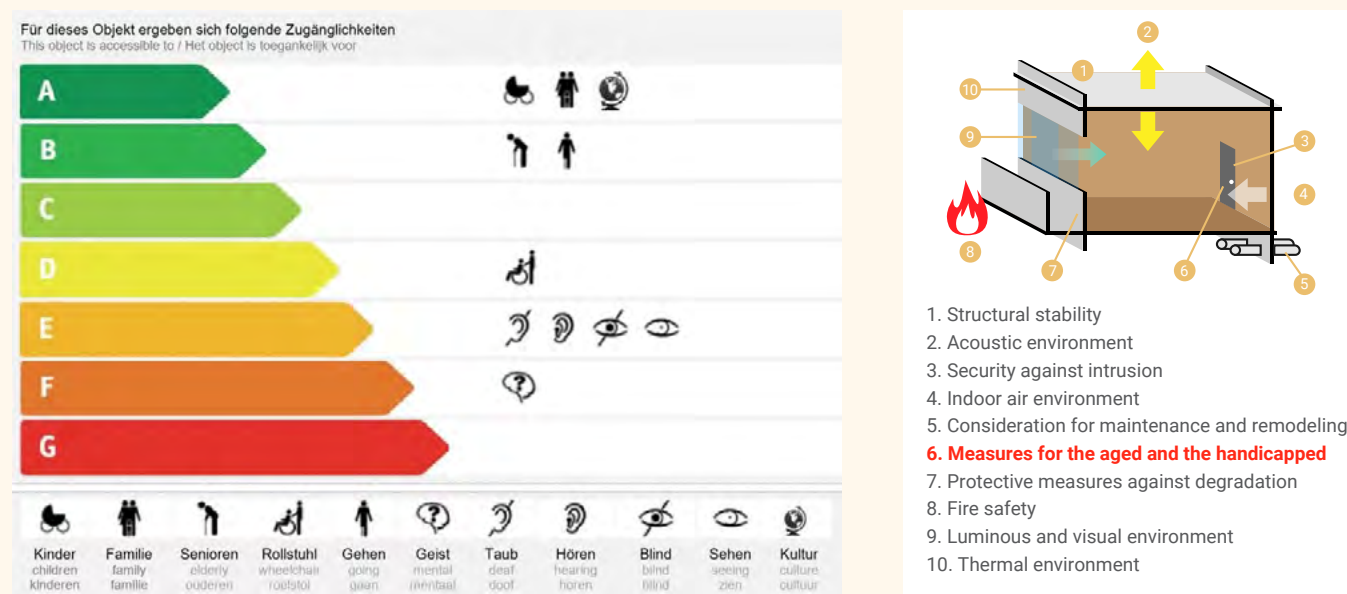
variety of public recognitions based on rating, indicators, certifications, awards, plaques, and logos.

Germany and The Netherlands are using the BPASS **accessibility pass**³² (similar to the familiar energy pass, see **Figure 10**, left) to rate building accessibility in an easily understandable way. Similarly, the **Housing Performance Indicator System** (**Figure 10**,

right) developed by the Ministry of Land, Infrastructure, Transport and Tourism in Japan rates ten different elements to enhance the quality of buildings and increase property values, including in the domain of “measures for the aged and the handicapped”.³³

The Building Control Authority (BCA) Accessibility Master Plan in Singapore includes the recognition of exemplary universal design

Figure 10. BPASS accessibility pass of Germany and The Netherlands (left), and Housing Performance Indicator System of Japan (right)



Sources: Zero Project (left); Adapted from World Bank (2016). Converting Disaster Experience into a Safer Built Environment – The Case of Japan (right).

³² Zero Project Report 2018. Rating the accessibility of buildings using a well-known seal system: https://zeroproject.org/fileadmin/root_zeroproject/Downloads/Publications/Zero-Project-Report-2018-on-Accessibility.pdf (page 65).

³³ World Bank. 2016. Converting Disaster Experience into a Safer Built Environment – The Case of Japan: <https://thedocs.worldbank.org/en/doc/162361520295760910-0090022018/original/jppublicationdrmhutokyoconvertingdisasterexperienceintoasaferbuiltenvironment.pdf>

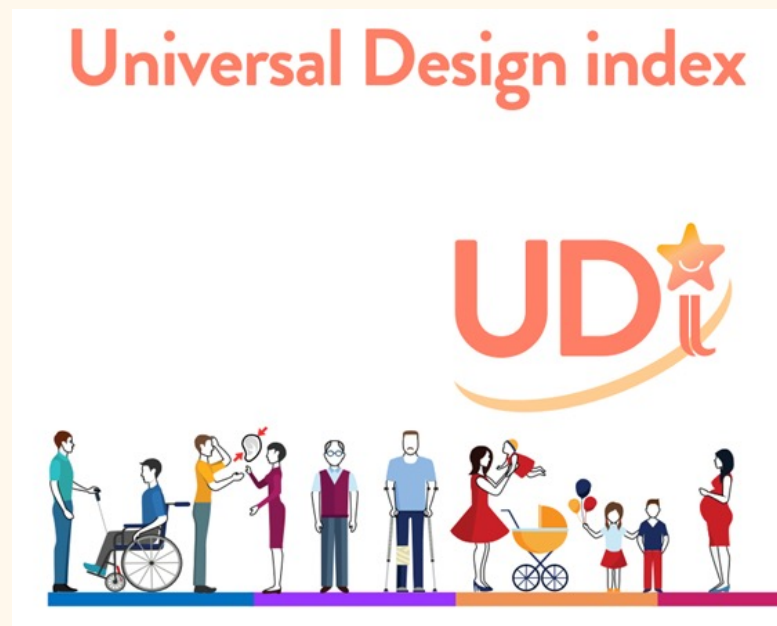
implementation in building with the Universal Design Excellence Award.³⁴ Furthermore, in 2022 the BCA recently introduced the Universal Design Index (UDi)³⁵ (Figure 11) self-assessment framework that aids building developers and architects to integrate universal design features into their projects and obtain an indicative measure of the level of user-friendliness. Exemplary projects that obtained excellent rating under the UDi will be

recognized through bestowal of the Universal Design Excellence Award. Data on building accessibility from the UDi is made available to the public via the BCA Information Portal.³⁶

B. Enabling Environment

Several knowledge incentives, market-driven approaches, and user support solutions, foster an enabling environment for compliance with

Figure 11. Singapore BCA's Universal Design Index



Source: Building Construction Authority, Singapore.

³⁴ Building and Construction Authority. 2022. *Universal Design Excellence Award*. Singapore: <https://www1.bca.gov.sg/buildsg/bca-awards/universal-design-excellence-award>

³⁵ UDi: <https://www1.bca.gov.sg/regulatory-info/building-control/universal-design-and-friendly-buildings/universal-design-index/universal-design-index-ratings>

³⁶ Ibid.

universal accessibility code requirements and provisions.

B.1. Knowledge

Knowledge materials and activities include awareness-raising campaigns for the general public, technical trainings and guidance products for building professionals, international guidelines and context-specific guidelines.

Diverse **awareness-raising initiatives** have been seen in Singapore, the US, and India. The Singapore Universal Design Week is a week-long program of events that showcase how exemplary universal design strategies have been adopted to create inclusive environments for users. In the US, Vermont’s law includes a consumer education component, and the Universal Design Program in the City of Irvine³⁷ requires builders there to provide a list of 33 optional accessibility features to consumers. Consumers ultimately decide whether they would like the features included in their new home or not.

Moreover, the Government of India observed the need to ingrain the importance of universal accessibility in children when

developing strategies to raise awareness within the population, and developed an accessible, interactive comic book³⁸ (**Figure 12**). It presents some accessibility challenges faced by children with different disabilities at school, and the way to alleviate or resolve them through accessible facilities. The book spreads among young people the message of the importance of an inclusive learning environment.

The Governments of Ghana and Ethiopia organized **technical trainings** and discussions to introduce building environment stakeholders to their “Accessibility Standard for the Built Environment” (Ghana)³⁹ and the “Promoting Urban Accessibility” initiatives (Ethiopia).⁴⁰ Argentina’s Universidad Nacional de Tucumán offers a free elective course on accessibility and universal design for architecture students.⁴¹

The Government of Ecuador⁴² and the Singapore Building Construction Authority developed a methodology and an index on universal accessibility, and a technical guide as an effort to develop **clear technical guidance for building professionals**. With the same objective in mind, the state of Ontario (Canada) published the “Accessibility for

³⁷ City of Irvine. 2023. *Accessibility & Universal Design*. City of Irvine, California, United States: <https://www.cityofirvine.org/community-development/accessibility-universal-design>

³⁸ National Council of Education Research & Training. 2023. *Priya the Accessibility Warrior*. India: <https://ncert.nic.in/ComicFlipBookEnglish/mobile/>

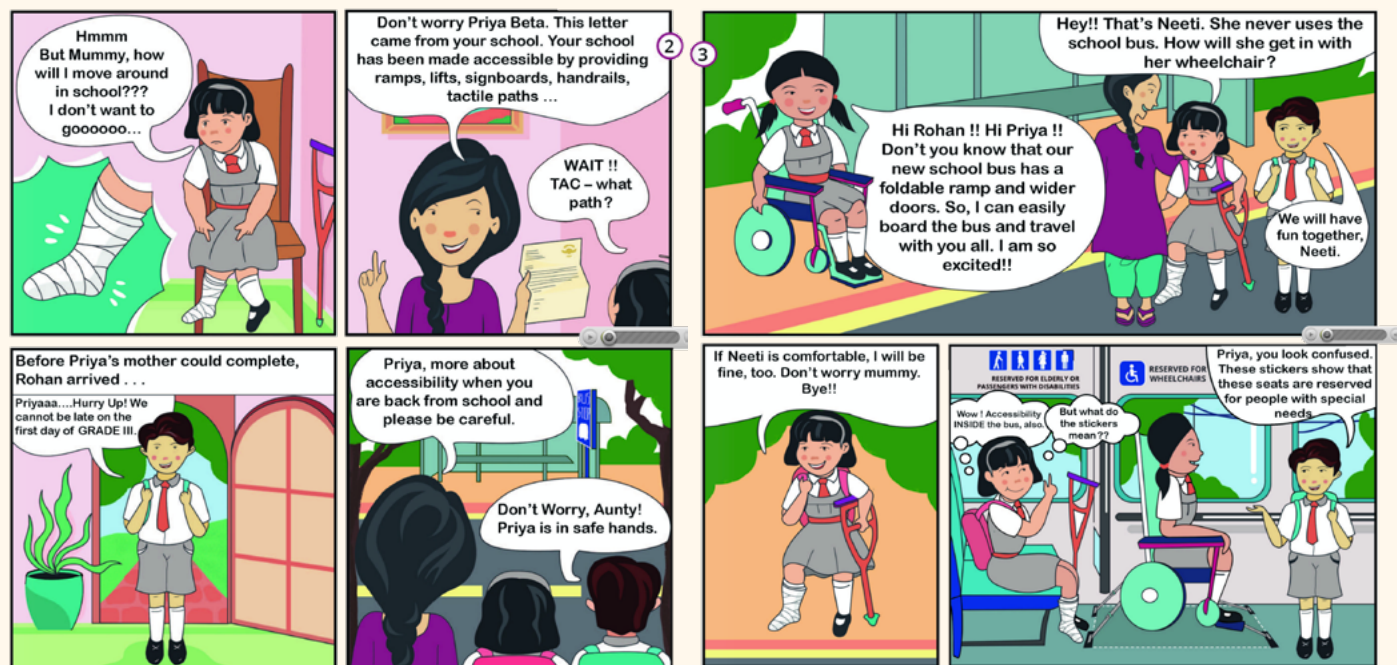
³⁹ Ministry of Gender, Children and Social Protection. 2018. *Technical Workshop on GASB*. Ghana: <https://www.mogcsp.gov.gh/technical-workshop-on-gasb/>

⁴⁰ Center for Disability and Development. 2023. *Promoting Urban Accessibility in Ethiopia*. Ethiopia: <https://slideplayer.com/slide/7551121/>

⁴¹ Zero Project. 2022. *University teaching principles and practical applications of Universal Design*. Argentina: <https://zeroproject.org/view/project/6d4d4bce-ad4a-ec11-8c62-000d3ab5a6do>

⁴² Ministerio de Desarrollo Urbano y Vivienda. 2016. *Accesibilidad Universal*. Ecuador: <https://www.habitatyvivienda.gob.ec/wp-content/uploads/downloads/2017/03/Accesibilidad-Universal.pdf>

Figure 12. India's comic book for children: Priya, the Accessibility Warrior



Source: <https://ncert.nic.in/ComicFlipBookEnglish/mobile/>

Ontarians with Disabilities Act Toolkit,”⁴³ India developed the simplified “Photo-Digest of Ten Basic Features of Accessibility”⁴⁴ (Figure 13), and the organization *Ciudad Accesible* (Accessible City) in Chile, developed 19 “Accessible Thematic Files”.⁴⁵ Similar resources are also being used in Argentina, Bolivia and

Peru. Topics include accessible toilet facilities, parking and housing, among others.

There are areas in which **sector-specific technical guidance for professionals** exist. Uganda⁴⁶ and India⁴⁷ developed clear sector-specific technical resources in the area of

⁴³ University of Waterloo. 2023. *Accessibility Toolkit*. Canada: <https://uwaterloo.ca/library/aoda-toolkit/#:-:text=Accessibility%20Toolkit,in%20your%20library%20or%20department>.

⁴⁴ Ministry of Social Justice and Empowerment. 2021. *Access, the Photo-Digest*. India: <https://divyangjan.depwd.gov.in/content/upload/uploadfiles/files/Dictionary%20on%20Accessibility.pdf>

⁴⁵ Ciudad Accesible. 2021–2022. *Fichas Accesibles*. Chile: <https://www.ciudadaccesible.cl/fichas-accesibles-nuevo-material-actualizado/>

⁴⁶ Future Policy. 2014. *Uganda's Accessibility Standards*. Uganda: <https://www.futurepolicy.org/youth-empowerment/the-right-to-equal-access-ugandas-accessibility-standards/#:-:text=In%20order%20to%20ensure%20comprehensive,the%20entrance%20of%20the%20building%2C>

⁴⁷ National Centre for Accessible Environments, Accessible India Campaign, UNICEF. 2016. *Making Schools Accessible to Children with Disabilities*. India: <https://www.unicef.org/india/media/1191/file/Making-Schools-Accessible.pdf>

Figure 13. Photo-Digest of Ten Basic Features of Accessibility (India)



Source: <https://divyangian.depwd.gov.in/content/upload/uploadfiles/files/Dictionary%20on%20Accessibility.pdf>

education. For the area of humanitarian action and emergencies, UNICEF's Toolkit on Accessibility: Accessibility in Emergencies⁴⁸ (Figure 14) and the Inter-Agency Standing Committee (IASC)'s Guidelines for the Inclusion of Persons with Disabilities in Humanitarian Action⁴⁹ also present technical guide, including details on accessibility in refugee camps and temporary shelters. On the similar topic, the Government of Vietnam developed a manual on inclusive community-

based disaster risk management highlighting relevant universal accessibility principles in the built environment.⁵⁰

The United Nations provides **international guidelines** for universal accessibility and design, included in the Convention of Rights of Persons with Disabilities (UNCRPD)⁵¹ (Figure 15, right), and in the New Urban Agenda⁵² (Figure 15, left). Both documents present a global framework of accessibility commitments

⁴⁸ UNICEF. 2022. *Tool on Accessibility*. UNICEF: <https://accessibilitytoolkit.unicef.org/media/461/file>

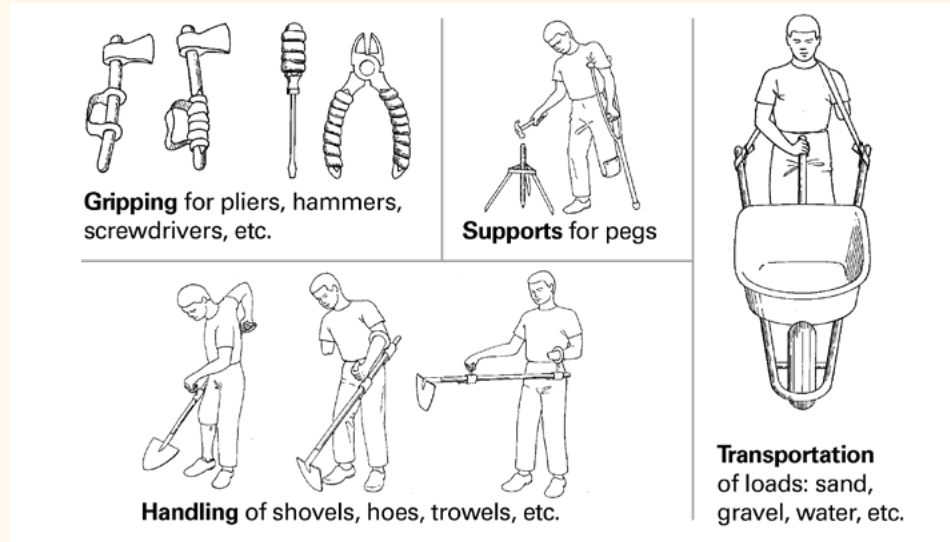
⁴⁹ Inter-Agency Standing Committee (IASC). 2019. *Guidelines: Inclusion of Persons with Disabilities in Humanitarian Action*. IASC: https://interagencystandingcommittee.org/sites/default/files/migrated/2020-11/IASC%20Guidelines%20on%20the%20Inclusion%20of%20Persons%20with%20Disabilities%20in%20Humanitarian%20Action%2C%202019_o.pdf

⁵⁰ Zero Project. 2014. *Widening effective participation of people with disabilities in community-based disaster risk management* (that is the mission of this project run by Malteser International and local partners in Vietnam). Vietnam: <https://zeroproject.org/view/project/f4aa1835-4e23-eb11-a813-0022489b3a6d>

⁵¹ United Nations Human Rights (OHCHR). 2006. *Convention on the Rights of Persons with Disabilities*. OHCHR: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>

⁵² Habitat 3. 2016. *The New Urban Agenda*. UN: <https://habitat3.org/the-new-urban-agenda/>

Figure 14. Detail from UNICEF’s Toolkit on Accessibility in Emergencies



Source: UNICEF/Dilli, David, Accessibility and Tool Adaptation for Disabled Workers in Post-Conflict and Developing Countries, International Labour Office, Geneva, 1997.

Figure 15. New Urban Agenda (left) and Convention of Rights of Persons with Disabilities (UNCRPD, right)



Sources: <https://habitat3.org/the-new-urban-agenda/> (left); <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities> (right)

that governments can ratify and implement within their countries.

B.2. Market-driven approaches


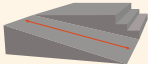

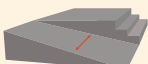
Market-driven approaches promoting universal accessibility in the built environment include initiatives originating from **targeted sectors** (for example, tourism and education) and targeted facilities (for example, toilets).

The European League of Historical and Accessible Cities (LHAC)⁵³ focuses on inclusive **tourism** by proposing a universally accessible historical route in six European cities, ensuring all aspects of accessibility are simultaneously

considered through a series of checklists (**Figure 16**). Project activities include various training courses for associations, tourist guides and architects and engineers.

The World Tourism Organization (UNWTO) and the ONCE Foundation (Spain) have taken steps toward ensuring an accessible building environment for tourists through the ‘Accessible Tourism Destination’ award⁵⁴ to acknowledge cities enabling a seamless experience for all tourists, and the ‘Reopening Tourism for Travelers with Disabilities’ report⁵⁵ (**Figure 17**) to provide universally accessible recommendations for destinations and service providers.

Figure 16. Details from LHAC checklist

REQUIREMENTS FOR MOVING Action of moving from one place to another, both horizontally and vertically.			SLOPE OF FOOTWAYS	RECOMMENDATION	ITINERARY
PAVEMENT	Uniformity Slippage/traction - surface quality	Question 39/40. Natural slope of footway Measure the gradient of the slope		>8%	
OPERATING SPACE	Dimensions Barriers Furniture, props, seats		Question 39. What is the longitudinal slope?		
CIRCULATION ZONES	Dimensions Barriers Doors Locking elements	Measure the gradient of the slope		>2%	
CHANGES IN PLANE	Stairs Ramps Lifts		Question 40. What is the lateral slope?		

Source: Philanthropy Europe Association (<https://philea.issuefab.org/resource/accessible-routes-in-historical-cities-a-best-practice-guide-for-the-planning-design-implementation-and-marketing-of-accessible-routes-in-historical-urban-environments.html>)

⁵³ League of Historical & Accessible Cities (LHAC). 2013. *LHAC: Welcome page*. LHAC: <http://www.lhac.eu/>

⁵⁴ World Tourism Organization (UNWTO). 2020. *UNWTO and Fundación ONCE deliver international recognition of ‘Accessible Tourist Destinations’ at FITUR*. UNWTO: <https://www.unwto.org/unwto-and-fundacion-once-deliver-international-recognition-of-accessible-tourist-destinations-at-fitur>

⁵⁵ World Tourism Organization (UNWTO). 2020. *Reopening tourism for travellers with disabilities: How to provide safety without imposing unnecessary obstacles*. UNWTO: <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-08/REOPENING.pdf>

Figure 17. UNWTO Reopening Tourism for Travelers with Disabilities’ report



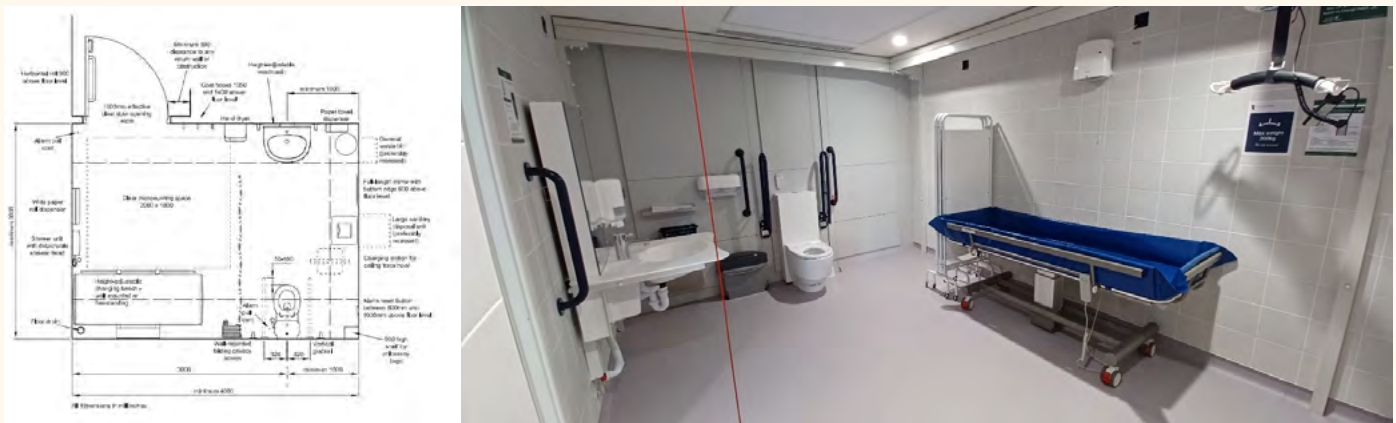
Source: <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-08/REOPENING.pdf>

Another market-driven approach focused on **education** is the case of the Tallin University

of Technology in Estonia. Former students with disabilities are employed as counsellors and give advice on the design of a universally accessible environment. As a result of policies and improvements implemented, the number of students with disabilities increased by more than 300 percent in three years.⁵⁶

Actions to advance toward universal accessibility in the built environment can also target **specific facilities** across building stocks, such as **toilets**. In the United Kingdom, the Changing Places initiative⁵⁷ (**Figure 18**) funds universally accessible toilets throughout the country. The location of toilets is published in a map, allowing users to easily find facilities.

Figure 18. Changing Places initiative



Source: Changing Places Toilet Layout Example (facility from Social Security Scotland).

⁵⁶ Zero Project. 2014. *Former students with disabilities are working at the Tallin University of Technology (TUT) as counsellors for freshmen and other students. They also give advice to the university on accessible, universally designed environments in order to provide higher education irrespective of disabilities.* Estonia: <https://zeroproject.org/view/project/bae6ce38-5023-eb11-a813-000d3ab9b226>

⁵⁷ Changing Places. 2023. *What are Changing Places Toilets?.* United Kingdom: <https://www.changing-places.org/>

B.3. User Support

User support includes initiatives such as digital platforms and accessibility guides.

Japan's "baby metro" accessible maps⁵⁸ (Figure 19), and Croatia's "Accessible Zagreb"⁵⁹ app

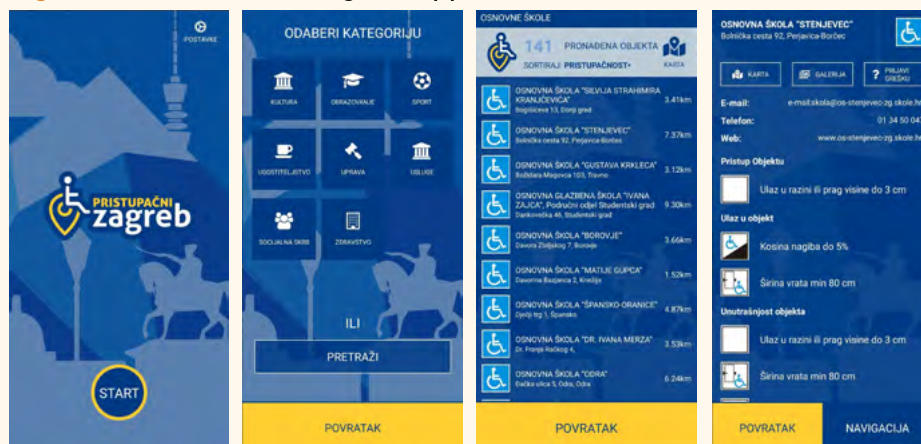
(Figure 20), aim to facilitate mobility for all, allowing users to find accessible facilities, providing accessible routes, information on buildings and streets and real-time information on location and accessibility of public transport vehicles.

Figure 19. "baby metro" app, Japan



Source: Tokyo Metro.

Figure 20. "Accessible Zagreb" app, Croatia



Source: <https://play.google.com/store/apps/details?id=com.crocoder.pristupacnizgb&hl=en>

⁵⁸ baby metro. 2019. Japan: <https://www.babymetro.jp/>

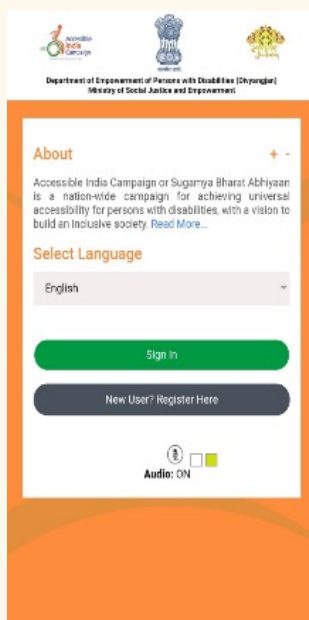
⁵⁹ Zero Project. 2022. A city collecting all the information about its accessibility for a smartphone app. Croatia: <https://zeroproject.org/view/project/39c63ae9-ad4a-ec11-8c62-0ood3ab5a6do>

The Sugamya Bharat App in India⁶⁰ (Figure 21) provides a platform for citizens to register and upload complaints related to accessibility in the built environment, transport, and ICT sectors. The app enables people with mobility impairments to register accessibility-related problems in buildings, transport, or any other infrastructure, by uploading images and

complaints, with an easy geotagging option, and available in ten Indian languages.

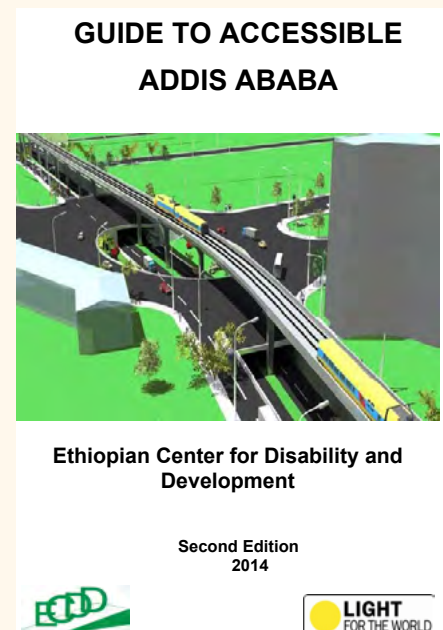
To conclude, the **Guides** on “Accessible Ethiopia”⁶¹ (Figure 22) are downloadable PDF documents that provide accessibility information on buildings in 12 towns and cities throughout the country.

Figure 21. The Sugamya Bharat App, India



Source: <https://apps.apple.com/in/app/sugamya-bharat-app/id1545729465>

Figure 22. Accessible Ethiopia, Addis Ababa guide



Source: <http://www.lhac.eu/resources/library/guide-to-accessible-addis-ababa---final.pdf>

⁶⁰ *Sugamya Bharat APP*. 2021: <https://dict.mizoram.gov.in/post/brief-note-on-sugamya-bharat-app-and-access>

⁶¹ Ethiopian Center for Disability and Development. 2014. *Guide to Accessible Addis Ababa*. Ethiopia: <http://www.lhac.eu/resources/library/guide-to-accessible-addis-ababa---final.pdf>

Appendix B: Glossary of Terms

Dropped Kerbs	Ramped sections of roadside kerbs which bring the pedestrian route down to the same height as the carriageway (roadway), providing easy, step-free access to people using wheelchairs, prams, and bicycles between the roadway and kerb.
Edge Protection	A kerb or upstand (typically no less than 100mm in height) provided along an open side of access routes— particularly ramped access routes, which prevents wheelchair users falling off ramps, prevents wheels from inadvertently leaving access routes and can be used as cane detection to assist in wayfinding for persons with visual impairments. The edge protection should visually contrast with adjacent surfaces.
Grab-bars (Grab-rails)	Bars (rails) affixed to walls or other surfaces that are capable of bearing the weight of an adult without bending or detaching. They are provided to assist persons with reduced mobility to transfer or steady themselves at critical areas (for example, when transferring on to or off a toilet; into or out of a bath).
Graded / Sloped Access Routes	A graded (sloped) route has a gradient which would require an exertion of effort for a person with reduced mobility (for example, a wheelchair user) to traverse.

Gradient	The measure of how steep a slope is, the greater the gradient the steeper the slope.
Handrail Extensions	A horizontal extension of a handrail beyond the first and last riser or footstep location in a stepped flight or ramp flight (stairs or incline). It allows people to steady themselves as they ascend or descend. The change in slope of the handrail from angled to horizontal also serves as a navigational aid for persons with vision impairments to alert them to the start or finish of a flight of stairs or steps, or a slope.
Horizontal or Vertical Circulation	Methods of movement for persons to, through, around, and between buildings and the built environment.
Inductive Coupler	A device which connects to the “T” setting of a hearing aid, via wireless, magnetic connection to provide greater clarity of sound, and cut out background noise. Typically installed in telephone devices.
Knee Recesses/Space	A clear space between the underside of a desk or counter and the floor to accommodate a wheelchair user’s knees.
Level Access Route	Any route that has a gradient which would require an effort to traverse, but where a wheeled device (such as wheelchair, rollator, or child stroller) would be able to rest on the surface without the need to apply breaks.
Manifestations	Permanent markings or features within areas of full-height transparent glazing (usually glass, in windows, doors, walls or screens) helping to prevent collisions by making the glazing more visible.
Nosing	The front edge of a step tread and riser (or landing and riser) that may be rounded, chamfered, or otherwise shaped.
On-Site Drop-off / Setting Areas	A clear, marked area to allow a person arriving at a building by vehicle to alight from the vehicle safely. This area should be level, and suitably sized to allow a person to safely transfer from a vehicle to a wheelchair, clear of vehicular access routes. It should also take into account the fact that persons may be arriving via larger than standard vehicles, buses, or vehicles that have side or rear ramps or hoists.
Operating Forces	The measurement of force required to open a door, which should be suitable for persons with reduced mobility and / or limited strength to operate.

Passing Point/Space	A point located on an access route, corridor or passageway that is suitably sized so as to allow two wheelchair users, or a person walking and a person using a wheelchair, approaching from opposite directions pass by each other.
Quiet rooms	Enclosed space designed to be suitable for single or multiple users containing seating and desk space, with acoustic properties for privacy. Recommended for large capacity public buildings where some users may require temporary relief from excessive sensory stimulation.
Reasonable Accommodation	Necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms.
Refuge Area	A refuge area is a location in a building, separated from fire by fire-resisting construction, designed to hold occupants during a fire or other emergency, when evacuation may not be safe or possible. Occupants can wait within the refuge until rescued by firefighters.
Shared Paths	An urban design approach which minimizes segregation of types of user, typically pedestrians, cyclists or vehicular traffic respectively. Shared spaces are intended to provide pedestrian priority spaces within the built environment by reducing the dominance of vehicular traffic.
Stepped Access Routes	A set of steps or stairs located on an access route providing access to, around, between or throughout buildings. Although not accessible for all users, steps and stairs need to be designed to be as usable as possible to all ambulant users. For example: riser height (vertical element of step), going length (horizontal element of step), handrail design, and so forth.
Tapping Rail	A detachable barrier or rail, positioned at low level to alert persons with vision impairments who use cane mobility aids to the existence of obstructions or hazards that protrude into access routes and pose a risk of collision (for example: the underside of a stair flight).
Turning Areas (Circulation)	A point located on an access route, corridor or passageway that is suitably sized so as to allow a wheelchair user to turn 90° and / or 180°.
Unobstructed Maneuvering Space	An area, clear of obstruction, within rooms, or in front of key facilities that allows sufficient space for relevant activities (for example, in front of entrance doors, kitchen counters, reception desks, ticketing machines or kiosks, and so forth).



Auftrag im Brandfall
nicht benutzen

Video



According to the World Cities Report, by 2070 almost the 60 percent of the world population will be living in urban contexts, increasing the need of making the built environment accessible for persons with different abilities and ages to accommodate varying needs of evolving population. The World Health Organization estimates that currently 16 percent of the world population lives with some kind of disability; UNDP calculates that by 2030, another 16 percent of the global population will be over 60 years old; and UNICEF approximates that the 25 percent is below the age of 15. More than ever, creating an inclusive built environment in our cities is becoming critical. The concept of Universal Accessibility focuses on making the built environment safety and comfortably usable for everyone, independently of their age, ability, or needs. This checklist aims to facilitate standardized and robust approach to review the universal accessibility provisions in building codes and regulations, through a set of diagnostic questions, for a more inclusive and safer built environment.



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