Sahel
Community Rating
System Handbook

Design, Construction and Operation

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1   Executive summary

Prioritizing accessibility and inclusion in both new and renovated communities unlocks a multitude of benefits that enhance community well-being and economic vitality. Accessible and inclusive neighborhoods not only attract businesses and stimulate economic growth but also boost tourism and increase demand for both visits and residency, drawing in investors eager to capitalize on these thriving environments.

When neighborhoods are designed to be accessible, inclusive, and easy to navigate, it can increase foot traffic for local shops and services. This boosts job creation and promotes overall economic vitality. Improved accessibility cultivates an inclusive environment where individuals of all abilities can fully participate in community life. Furthermore, accessible educational facilities, such as schools and universities, lead to better academic outcomes for students with disabilities, paving the way for future success.

Accessible and inclusive communities significantly enhance the quality of life for residents and visitors alike. Easy access to essential services, recreational facilities, cultural amenities and residential areas fosters more fulfilling lives, improving mental health and overall well-being for individuals and families. Enhancing accessibility in the neighborhood can lower insurance costs by reducing the likelihood of accidents, enhancing infrastructure resilience, and promoting community health.

Accessible and inclusive neighborhoods can lead to healthier lifestyles and lower healthcare costs. Investments in features such as well-maintained sidewalks and lighting not only reduce accident risks but also lower healthcare costs, as increased accessibility is linked to improved safety measures.

Communities designed with accessibility and inclusion in mind are better equipped to adapt to changing demographics and evolving needs over time. As populations age and the demand for accessible spaces increases, these structures will remain relevant and functional. Additionally, they play a vital role in addressing climate change and promoting a more sustainable environment.

Investments in accessible infrastructure, such as walkable and bike-friendly paths, reduce reliance on cars, thereby decreasing air pollution and traffic congestion. By promoting alternative modes of transportation, these initiatives support efforts to combat climate change and contribute to a more sustainable environment.

For developers, improving accessibility in neighborhoods with private villas or other residentials areas presents developers with a chance to earn substantial points in rating systems, showcasing their commitment to creating inclusive environments. Achieving this involves implementing various measures, including smooth sidewalks and ramps, providing accessible parking spaces, installing clear signage, offering inclusive amenities, incorporating universal design principles in landscaping, maintaining clear pedestrian paths, providing adequate lighting, fostering community engagement, and implementing inclusive policies. Engaging with accessibility experts and user groups throughout the process ensures that best practices are effectively integrated.

In conclusion, accessible and inclusive communities are not only more vibrant but also contribute to a sustainable future, making them essential for the well-being of all users.

Content

In the Sahel Community Rating System: Design, Construction and Operation can be found all the required information to understand and implement the Sahel Community Rating System in the community with the help of the following content:

a) The description of the Sahel Community Rating System, the objectives and its relationship with the Sahel Building Rating System and the Sahel Public Realm Rating System.

b) The methodology used in the system, including the rating system used and the assessment criteria in each of the contained category.

c) The applicability of the rating system in the community's initial development or redevelopment, and its renovation projects.

d) The rating system and the levels that can be achieved.

e) The rating process including the registration procedures, pre-certification rating, certification rating and renewal.

f) The key members involved in the rating process.

g) Finally, after an explanation of the scorecards to be used to guide the design, the implementation of accessibility and universal design, the assessment and the rating, the detailed content of each scorecard is presented being grouped into ten categories: Inclusive Integrated Design (IID), Transportation Access (TA), Interconnectivity and Circulation (IC), Ergonomic Furniture and Equipment (EFE), Environment Quality and Comfort (EQC), Hygiene and Care (HC), Digital Accessibility (DA), Orientation and Communication (OC), Emergency Systems and Procedures (ESP) and Considerate Maintenance (CM).

2   Introduction

2.1   Inclusion: Key to sustainable built environment

More than a billion individuals, accounting for about 15% of the global population[1] live with some disability. As the population continues to age, this number is expected to rise, leading to more people facing various challenges in the future. This substantial demographic underscores the necessity of developing inclusive environments that cater to a variety of needs. Disabilities encompass a wide spectrum, such as:

a) Individuals with mobility impairment
b) Individuals with a vision impairment
c) ndividuals with a hearing impairment
d) Individuals with a cognitive impairment or neurodivergent individuals

A disability can profoundly affect an individual's daily activities and opportunities. Moreover, creating an inclusive and accessible community benefits a wide range of user groups, including:

a) Elderly
b) Women (pregnant women and nursing mothers) and families with children
c) Obese and bariatric people
d) Individuals of foreign cultural background
e) Individuals with allergies

Creating accessible and inclusive communities is essential to ensure that everyone can participate fully and safely in society, regardless of their abilities, ages, or backgrounds. Failing to accommodate the diverse needs of the population perpetuates exclusion (Federal Law No. 29 of 2006 Concerning the Rights of People with Special Needs) and impedes social progress.

The 15-minute city concept ensures residents can access essential services within a short distance from home. By locating amenities near residential areas, communities become more inclusive, livable, and equitable. This approach breaks down barriers, promotes equal opportunities, and fosters community. Infrastructure must be designed with accessibility and inclusivity in mind, featuring well-maintained sidewalks and accessible public transportation, to promote environmental sustainability and reduce air pollution and greenhouse gas emissions.

Moreover, accessible and inclusive communities have a positive effect on individuals and families, improving mental health and overall well-being. By promoting healthier lifestyles, accessible environments also help reduce healthcare costs. Additionally, well-designed features like well-maintained sidewalks and adequate lighting enhance safety, minimizing the risk of accidents and creating a more secure environment for everyone.

By placing accessibility and inclusivity at the forefront of community design, cities can foster more sustainable, equitable, and resilient communities that benefit all citizens. This approach aligns with the United Nations' Sustainable Development Goals (SDGs), which promote inclusive and sustainable development worldwide. By designing neighborhoods that are accessible and inclusive, cities can make significant strides towards achieving the SDGs, ultimately creating a better quality of life for present and future generations. "Sustainable development is how we must live today if we want a better tomorrow, by meeting present needs without compromising the chances of future generations to meet their needs." [2]

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1   World Health Organization. World report on disability. World Health Organization. Retrieved from September 19, 2023, from http://www.who.int/publications/i/item/world-report-on-disability

2   United Nations. (2024, August). What is sustainable development? Retrieved from https://www.un.org/sustainabledevelopment/blog/2023/08/what-is-sustainable-development/

2.2 The Sahel Community Rating System and its objectives

2.2.1 The Sahel Rating System

Sahel, which means 'ease' or 'facileness' in Arabic, is an initiative launched by the Department of Municipalities and Transport (DMT) to develop and redevelop the built environment in the Emirate of Abu Dhabi, making it more socially sustainable for its residents and visitors.

The Sahel Rating System shall encourage all developers, asset owners and designers to design, create and maintain a built environment that can be used easily, effortless, safely and without facing barriers by all residents and visitors regardless of their needs and according to the 7 Principles of Universal Design developed by Ronald L. Mace[3].

a) Equitable use
b) Flexibility in use
c) Simple and intuitive use
d) Perceptible information
e) Tolerance for error
f) Low physical effort
g) Size and space for approach and use

This 'People First Paradigm' is an approach that prioritizes the needs and preferences of individuals, placing them at the heart of design and decision-making processes. This paradigm ensures that the unique abilities, challenges, and perspectives of all people are acknowledged and respected across various aspects of life, including technology, infrastructure, policies, and services. It embodies a steadfast commitment to human-centred design.

In alignment with this philosophy, the Sahel Rating System emphasizes the 'Human Scale' in new developments and redevelopments, as well as renovations. This focus tailors urban environments to align with human senses and mobility, considering how individuals perceive their surroundings and their comfort within both natural and built environments, relative to their size, proportion, and line of sight. At the city and neighborhood level, the system advocates for compact designs that enhance pedestrian mobility. At the block level, it fosters social interaction by creating intimate spaces between buildings and providing accessible amenities that promote a sense of community and connection.

The Sahel Rating System comprises the following documents:

a) Sahel Community Rating System: Design, Construction and Operation
b) Sahel Public Realm Rating System: Design, Construction and Operation
c) Sahel Building Rating System: Design, Construction and Operation

The Sahel Community Rating System aims to guarantee that the design requirements for a community meet the needs and expectations of all users by comprehensively planning all the services and amenities that they require.

The park and its surroundings area example below displays how the services and functions are located to guarantee their availability at reasonable walking distances (figures 1 to 12) and its connectivity with nearby areas.

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3   Universal Design Institute. (n.d.). The 7 principles of universal design. Retrieved from September 19, 2023, from http://www.udinstitute.org/principles

Figure 1: Pedestrian connectivity within 5- and 10-minutes walking

Legend:
- Pedestrian route
- Bicycle track
- Bus stop

Legend:
- Pedesting crossing
- Bus stop
- Bicycle track
- Coffee shop
- Drop of area
- Picnic area
- Parking
- Pedesting route
- Sports facility

Figure 2: Park Map
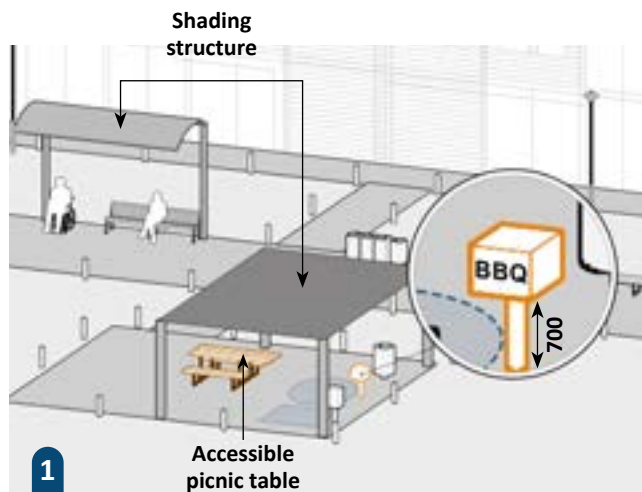
Figure 3: Picnic area
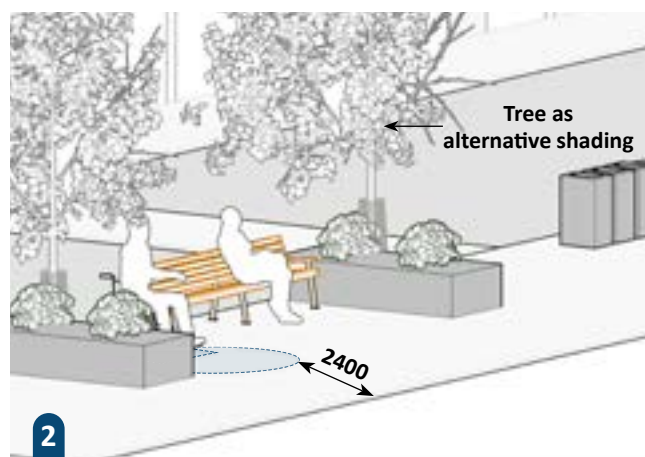
Figure 4: Rest point at residential area
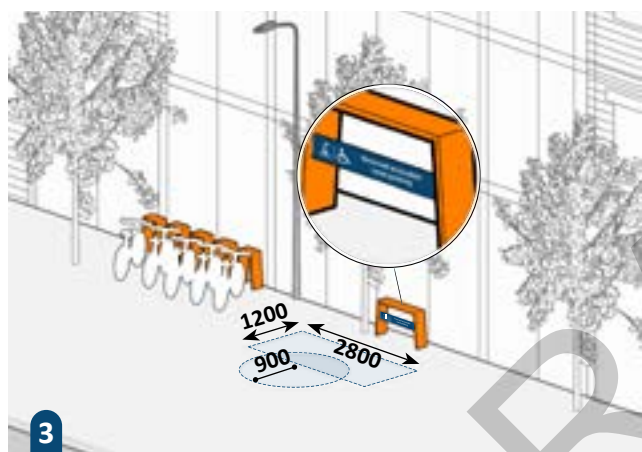
Figure 5: Cycle parking at building entrance
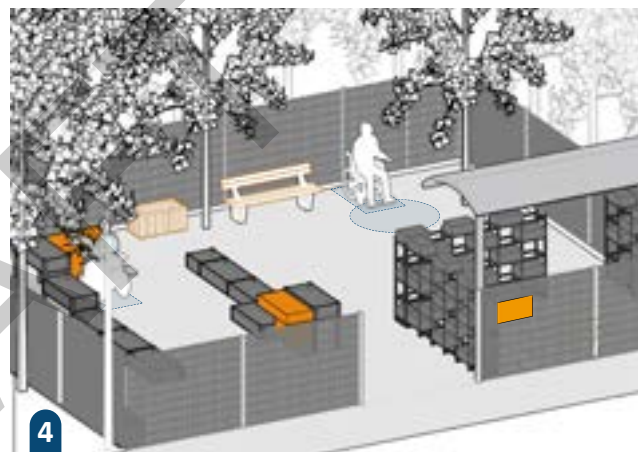
Figure 6: Garden beds at park
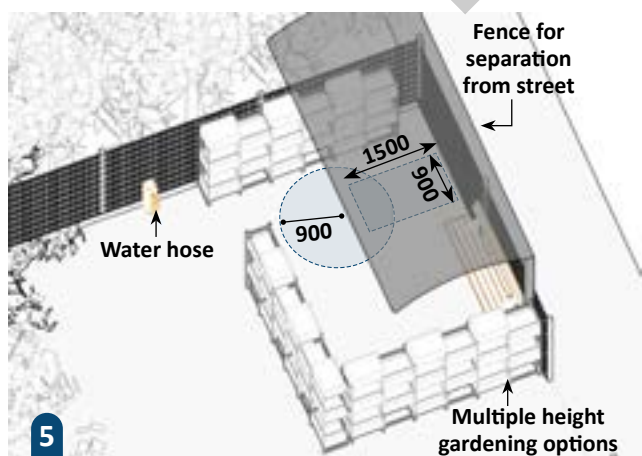
Figure 7: Gardening calm area at park
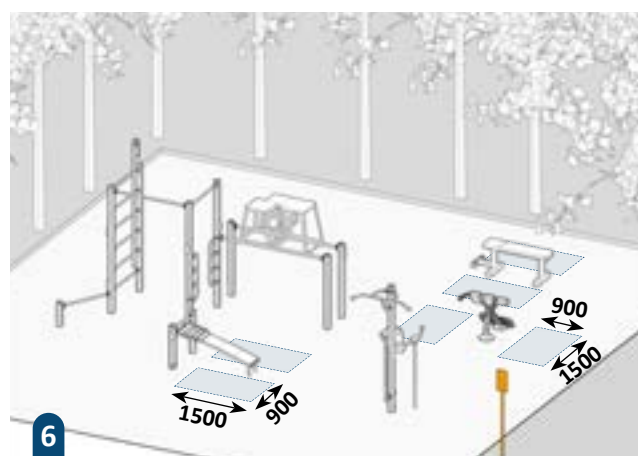
Figure 8: Outdoor gym
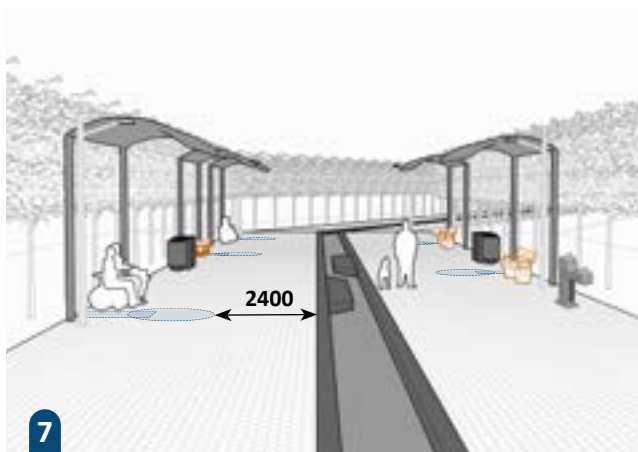
Figure 9: Accessible routes at park

Figure 10: Accessible passenger loading zone
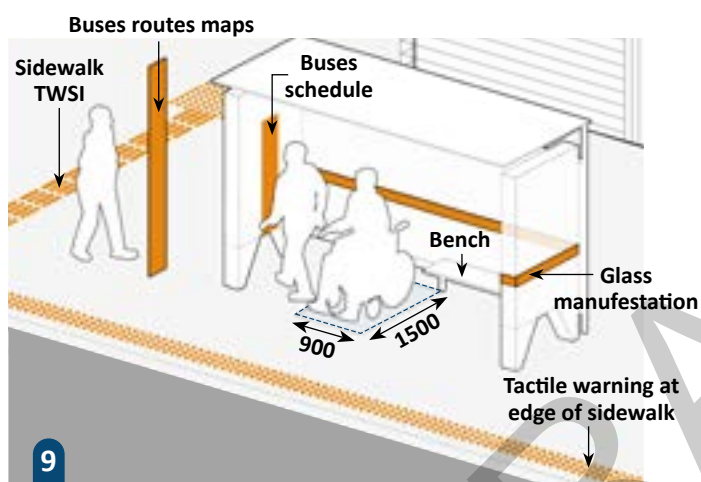
Figure 11: Bus shelter with tactile guidance
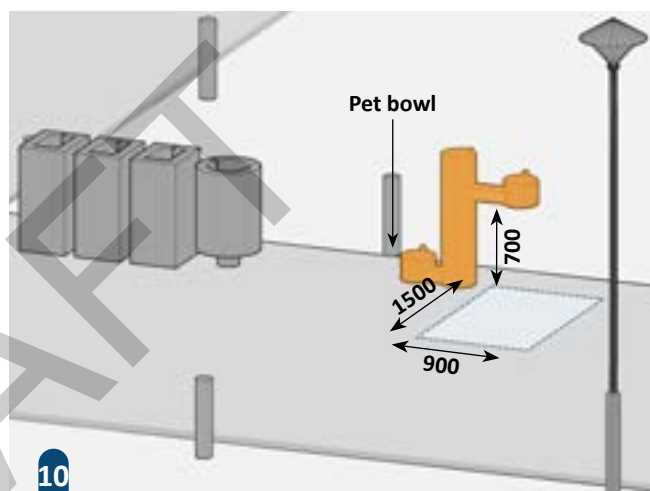
Figure 12: Drinking fountain with pet bowl at park

While, other types of areas, like the beach in the example below, address the universally designed functions and services required as well as their accessible connections (Figures 13 to 19)

Legend:
- ■ Rest point
- ▬ Pedestrian route
- ▬ Bicycle track
- ⬡ Bus stop
- ■ Toilets and shower
- ■ Parking lot
- ■ Underpass
- ■ Coffee shop
- ■ Bicycle parking
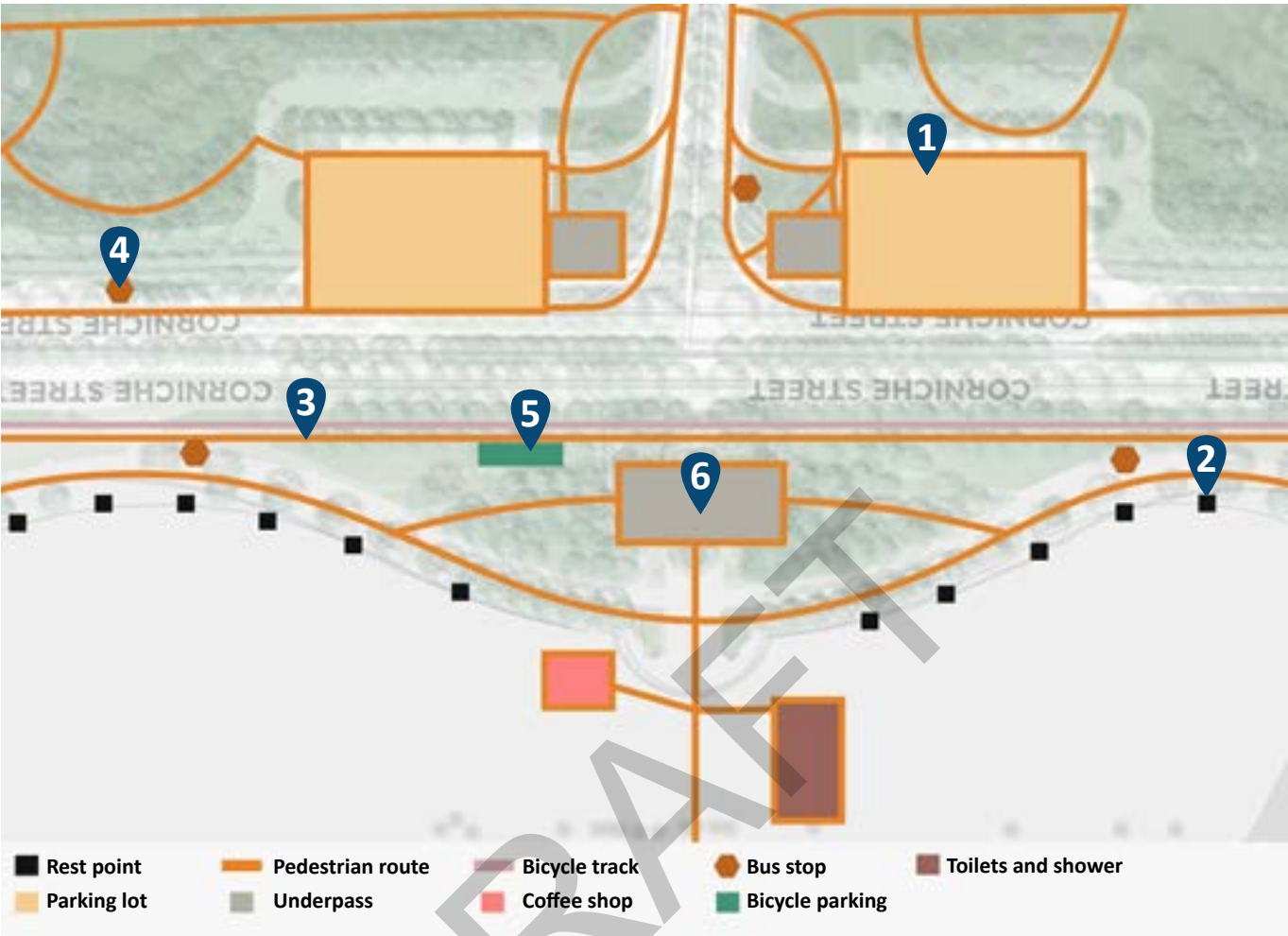
Figure 13: Beach area plan view
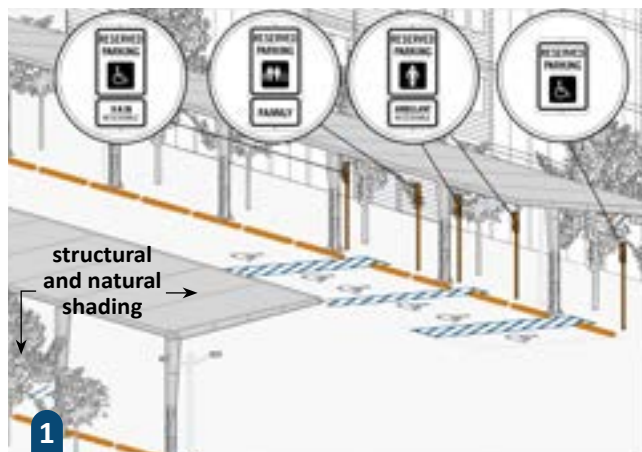
Figure 14: Accessible parking types in parking lot
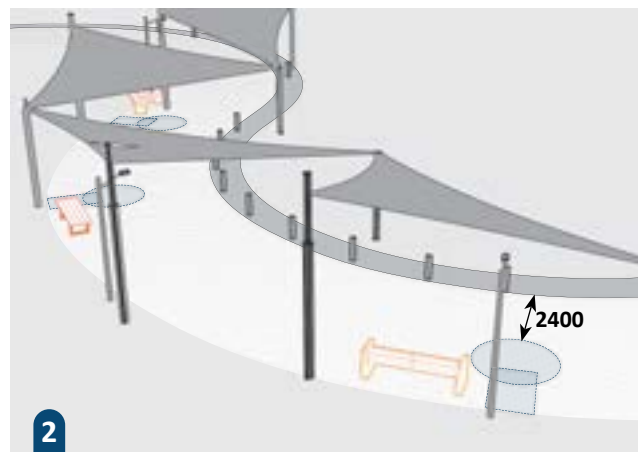
Figure 15: Rest points with different seating options
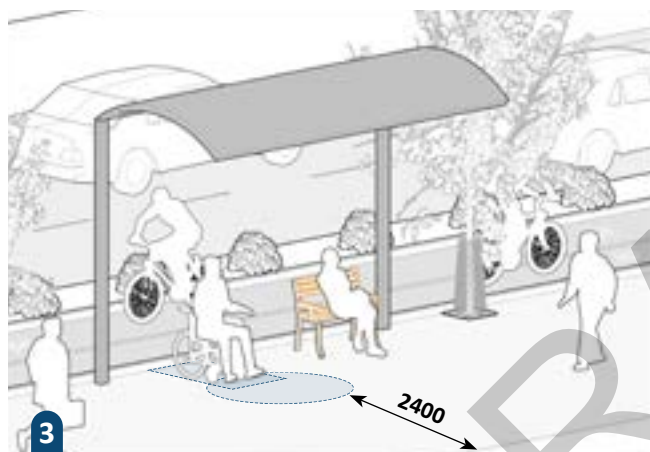
Figure 16: Rest point at sidewalk
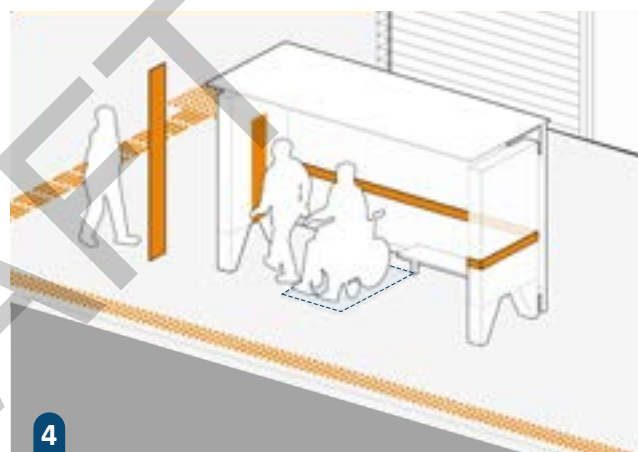
Figure 17: Climatized bus shelter
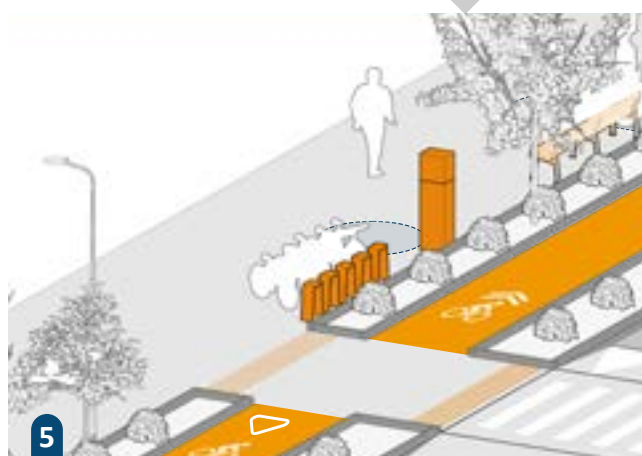
Figure 18: Cycle parking
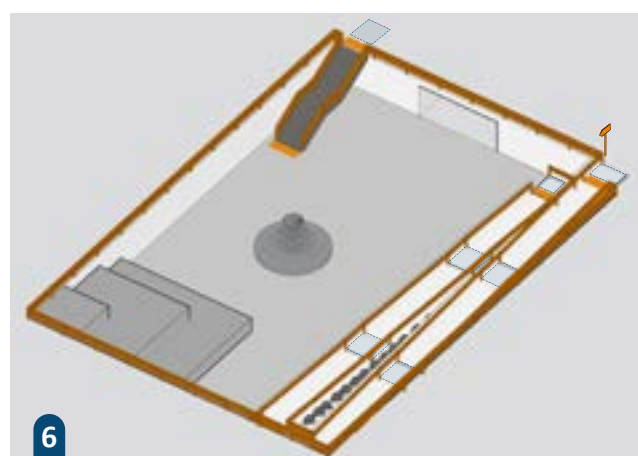
Figure 19: Underpass

The mixed-use areas are the best way to bring all fully accessible facilities close to all users (Figure 20).
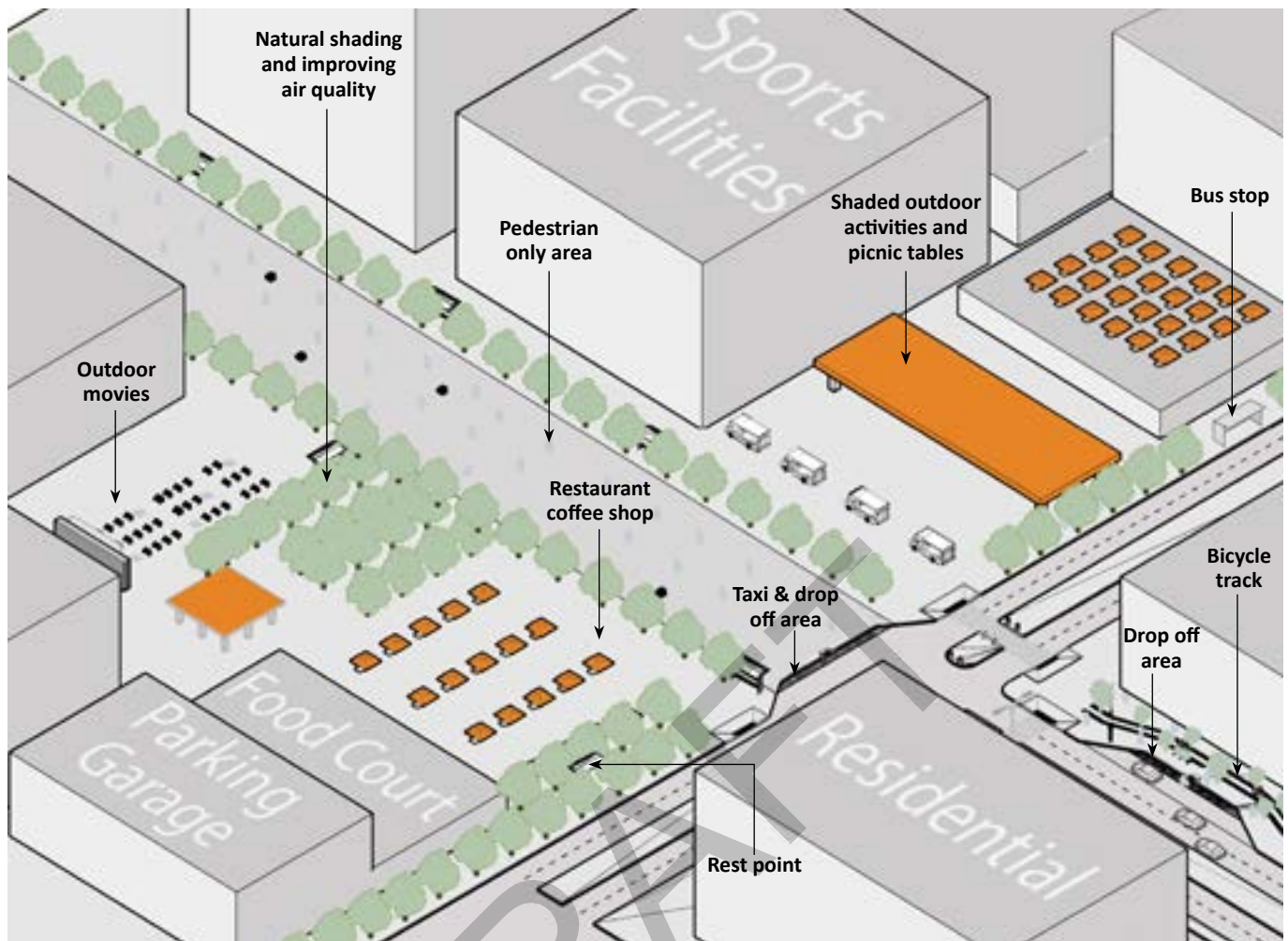
Figure 20: Community social area and pedestrian-only zone

2.2.2 Objectives

2.2.2.1 Promoting compliance with accessibility regulations

The Sahel Community Rating System has a bold ambition: to not only ensure compliance with accessibility regulations across entire neighborhoods, but to exceed them. By achieving recommended and best practices, the system strives to create neighborhoods that are truly inclusive and accessible to all users.

2.2.2.2 Encourage the renovation of communities

Promote the gradual yet decisive adaptation to the needs of all residents and visitors. Ensure that all renovations prioritize accessibility, that existing accessible features are maintained or enhanced, and that inaccessible areas are systematically upgraded.

2.2.2.3 Recognition of services and places based on accessibility levels

The Sahel Community Rating System aims to categorize the built environment based on its accessibility and inclusivity features. This comprehensive framework provides a clear understanding of the level of accessibility offered, empowering users to make informed decisions about their visits and participation in society. Whether a location is wheelchair-accessible, sensory-friendly, or accommodates diverse needs, this recognition enables individuals to choose spaces that cater to their unique requirements, fostering greater inclusion and social participation.

2.2.2.4 Creating value for accessible assets

By certifying neighborhoods as Accessible, Adaptable, Inclusive or Exemplar, the Sahel Community Rating System seeks to drive demand for these assets, from a minimum standard to a maximum aspiration. Recognizing the value of Exemplar neighborhoods incentivizes investment in their development and redevelopment, ultimately creating a more equitable and diverse built environment that benefits not only individuals with disabilities but everyone.

2.2.2.5 Raising awareness among stakeholders

The Sahel Community Rating System plays a crucial role in educating owners, occupants, designers, and operators about the advantages of Accessible, Adaptable, Inclusive or Exemplar neighborhoods. It emphasizes the positive impact on the quality of life, social inclusion, and overall well-being of the Emirate. By spreading awareness, it fosters a collective commitment to creating spaces that cater to everyone.

2.3   The methodology – A robust and consistent cross-tier approach

The system relies on one set of rules covering different aspects of accessible and universal design. It's divided into three tiers: one for buildings, another for public realm and a third for communities. This setup ensures assessment integrity while accounting for the differences between these types of assets.

2.3.1   Rating tiers

2.3.1.1   Community

The Sahel Community Accessibility Rating System provides a tool to determine the level of accessibility across community spaces and infrastructure. Its purpose is to integrate accessibility principles into master planning, ensuring a cohesive and systematic approach to accessibility challenges on a larger scale. By encouraging comprehensive evaluations, the system aims to embed accessibility into the planning process, resulting in environments that support inclusivity and equitable access for all community members.

2.3.1.2   Public Realm

The Sahel Public Realm Rating System provides a tool to determine the level of accessibility in designated outdoor spaces and their associated facilities, such as plazas, parks, playgrounds, public toilets and kiosks, and others, which are all utilized independently from buildings. The Sahel Public Realm Rating System aims to evaluate the urban spaces connecting these areas and ensures these spaces are perceived as one cohesive place, providing a unified user experience.

2.3.1.3   Buildings

The Sahel Building Rating System provides a tool to determine the level of accessibility in all building allocation types, particularly those that are meant for public access. The Sahel Building Rating System can also be used to certify all types of dwellings and heritage buildings.

Figure 21: Community zone

2.3.2 Sahel Community Rating System for development and renovation

2.3.2.4 Focus:

The Sahel Community Rating System for development and renovation is designed to foster vibrant, accessible, and inclusive communities that prioritize environmental sustainability and connectivity. This objective revolves around the comprehensive enhancement of entire neighborhoods to cater to the needs of all residents.

The primary focus is on developing a community that includes accessibility, inclusivity, and liveliness, fostering strong community cohesion and providing optimal living conditions. This entails creating spaces that not only support physical and mental well-being but also encourage social interaction, thereby elevating the overall quality of life.

To achieve this goal, the integration of accessibility and inclusivity is crucial at every stage, spanning initial planning to development and ongoing operations. This approach ensures that all community members can actively participate and reap the benefits of neighborhood enhancements.

For whom it is intended:

   a) **Master Plan:** The Sahel Community Rating System and its categories are utilized to define accessible and inclusive strategies for both the Concept Master Plan (CMP) and the Detailed Master Plan (DMP).
   b) **Planning stage:** The Sahel Community Rating System is available for community-scale projects at any stage of planning and design, but no later than the concept design stage.
   c) **Built environment:** The Sahel Community Rating System is designed for community-scale projects that were completed in the past or prior to handover after construction.

The Sahel Community Rating System is designed to be used both for new developments and renovation projects. There is no maximum size of project which may apply for a Sahel Community Rating System. However, for projects larger in size than a District (which usually includes several neighborhoods), the project is to be divided into individual Districts and a separate application made for each of these Districts.

2.3.2.5 Level of accessibility for buildings and public realm in renovation process

Renovating an existing non-accessible community into an accessible and universally designed community includes establishing a multi-year action plan that determines the spaces and services that will be improved in each stage.

Each of the stages will be subject to its relative rating system that will recognize the level of accessibility achieved. For example, if a community has 42 playgrounds and submits 21 of them for certification rating, obtaining the Sahel Inclusive level, the community will be able to announce that 50% of its playgrounds are accessible at the Sahel Inclusive level.

The rating levels of different stages in the renovation process can be easily visualized within the Geographic Information System (GIS) and appreciated by neighbors and visitors.

2.3.3 Submission requirements

Submission requirements for each of the stages of the Sahel Community Rating System are outlined under each credit area.

2.3.4 Assessment criteria – Categories

People with diverse access needs, whether due to physical or mental conditions, may encounter challenges in city life like transportation, communication, education, employment, or social activities. Hence, the rating system is structured into different thematic categories as mentioned in the table below, to address these issues comprehensively. These categories are interconnected, so applicants should aim to address multiple aspects rather than focusing on just one. This approach demonstrates a holistic and inclusive strategy to enhance the quality of life for everyone.

The rating system is organized into thematic categories, as outlined in the table below, to address the diverse challenges faced by individuals with varying needs, whether related to physical or mental conditions. These categories are interrelated, and applicants are encouraged to address multiple areas rather than concentrating on a single aspect. This integrated approach promotes a comprehensive, inclusive strategy aimed at improving the overall quality of life for all.

Within each category listed below, there are sub-categories focused on different aspects. Within subcategories, the rating system distinguishes between two types of requirements:

a) Mandatory requirements –being the obligatory minimum for new and existing developments but providing the opportunity to gain credits in existing communities by improving their accessibility while quantifying the gap between what is existing and the minimum requirements.

b) Enhanced requirements – providing an opportunity to gain credits for "enhanced" provisions – hence the differentiation in the title.

Table 1: Rating Categories

Number	Credit Reference	Credit Title
1	c	Inclusive Integrated Design
2	TA	Transportation Access
3	IC	Interconnectivity and Circulation
4	EFE	Ergonomic Furniture and Equipment
5	EQC	Environment Quality and Comfort
6	HC	Hygiene and Care
7	DA	Digital Accessibility
8	OC	Orientation and Communication
9	ESP	Emergency Systems and Procedures
10	CM	Considerate Maintenance

2.3.5 Applicability of assessment criteria

The rating system checks a broad variety of accessibility aspects as shown above in the categories. It is however acknowledged that there may be instances where some criteria may not be applicable due to:

a) lack of clarity regarding the items to be assessed within the boundaries of the area to be certified. The areas of the community that are to be renovated shall include all the services and spaces necessary for the use of the asset subject to certification.

or

b) the nature of certified assets

Both mandatory and voluntary requirements have a defined applicability. Based on the description of applicability one can confirm if the asset needs to comply with the given criteria or is entitled to gain extra credits.

In consequence, the rating process starts with an applicability check, determining the list of applicable rating criteria.

2.3.6 Rating scores

The Sahel Rating System recognizes the quality of the asset in terms of overall accessibility at the following levels:

Table 2: Sahel Community Rating System levels

Awarded Rating	Minimum Requirements
Accessible (R)	In new communities/developments: All mandatory credits Existing communities: At least all available credit points in mandatory credits.
Adaptable	In all developments: All mandatory credits +30% of recommendations or best practices.
Inclusive	In all developments: All mandatory credits +60% of recommendations or best practices.
Exemplar	In all developments: All mandatory credits + at least 90% of recommendations or best practices.

The scores depend on the number of credits achieved by meeting the applicable criteria defined as percentage.

Meeting mandatory criteria is not awarded with credits in new assets; however, they contribute to the number of applicable requirements.

In existing communities, credits obtained by meeting mandatory requirements will confirm that all mandatory criteria are met or will identify the gap between the current situation and the requirements that shall be met to achieve all mandatory criteria, identifying aspects that need improvements.

An example of credits given for the Sahel Rating System is given in the table below:

Table 3: Credit Scores Summary

Code	Credit section	Credits available	Pre-certificate rating credits	Certificate rating credits
IID	Inclusive Integrated Design	25	25	25
TA	Transportation Access	11	8	11
IC	Interconnectivity and Circulation	230	140	140
EFE	Ergonomic Furniture and Equipment	90	50	90
EQC	Environment Quality and Comfort	205	115	175
HC	Hygiene and Care	70	55	70
DA	Digital Accessibility	28	3	6
OC	Orientation and Communication	40	10	20
ESP	Emergency Systems Procedures	230	80	80
CM	Considerate Maintenance	8	8	8

Total:		937	494	625
Percent:		100%	53%	67%

Pre-certificate rating	Adaptable
Certificate rating	Inclusive

The table below summarizes the conditions to be met for each of the Sahel Community Rating System levels:

Table 4: Certification Scores per Level

	Accessible	Adaptable	Inclusive	Exemplary
Mandatory requirements met	100%	100% +	100% +	100% +
Recommended & Best Practice requirements met	Minimum	30%	60%	90%

Example: The project has met 67% of the applied requirements. This is above the 60% threshold, so the proposed score is Inclusive.

2.3.7 Rating level to achieve

Both new and existing projects shall aim to reach the Sahel Accessible level at the pre-certification rating stage to obtain the municipal permit to build.

All new government and semi-government projects should aim to achieve Adaptable level as a minimum.

2.3.8 Rating process

2.3.8.1 Rating steps

The Sahel Community Rating System covers the design, implementation, operation, renovation and expansion of certified communities and enables confirmation of their accessible character in four steps:

2.3.8.2 Registration, enquiry, and applicability check

In the initial rating stage, the project is supposed to be registered by submitting a digital form to the portal on TAMM.

Once the form is analyzed by the Sahel Rating Team, a meeting is organized between the owner/developer, his Sahel Qualified Professional and the representative of the certifying institution.

Based on the general project information containing data such as location, estimated size and initial design brief, in new developments, or area or services to be renovated, in existing assets, characterizing its primary functions, the owner/developer can confirm with the rating institution, which rating variant is suitable and what are the applicable credits. This will allow the Sahel Qualified professional, together with the design team to include the Sahel Rating System strategies within the Concept Master Plan (CMP) and the Detailed Master Plan (DMP).

2.3.8.3 Pre-certificate Rating

The pre-certificate rating is associated with the design stage and recognizes the intended level of accessibility. The basis for the pre-certificate rating is an Accessibility Statement and Strategy – a document confirming designed accessibility and universal design features and intentions. The pre-certificate rating should support owners/developers in obtaining the necessary permits and funding for creating accessible communities.

2.3.8.4 Certificate Rating

Only the assets for which the construction or renovation has been completed and successfully handed over for operation are entitled to apply for a certificate, including those of existing communities. Accessibility is assessed based on as-built documentation, situation, and operational procedures.

For assets of significant accessibility importance, such as community projects, the certificate rating depends on a successful on-site audit.

2.3.8.5 Certificate renewal

The first certificate is valid for 5 years. After that period, to maintain the status of a certified asset the level of accessibility needs to be confirmed. This is done by submitting the records of maintenance records and users' feedback. The Assessor will then decide the type of assessment required before issuing the renewed certificate.

2.3.9 The Sahel Rating System process chart

Planning
- Enquiry Master Plan
- Concept Preparation for Master Plan
- Concept Review
- Detailed Preparation for Master Plan
- Detailed Review

Municipal Permitting Progress
- Enquiry Meeting
- Pre-Concept Stage
- Concept Planning Review
- Detailed Planning Review

Construction Rating
- Construction
- Handover

Post-Construction

Master Plan
Input Sahel Community Rating System Strategies into the Master Plan
- Enquiry Master Plan
- Register Development
- Appoint Sahel Qualified Professional
- Conduct Workshops

Design Stage Assessment

Concept Master Plan
Input Sahel Rating System Strategies into the Concept Master Plan

Detailed Master Plan
Input Sahel Rating System Strategies into the Detailed Master Plan

Preparation
- Register Development
- Appoint Sahel Qualified Professional
- Conduct Workshops

Pre-certificate
- Review and Update
- Issue Design Submission
- Review by Sahel Assessor
- Achieve Pre-Certificate

Sahel Rating Systems

Sahel Public Realm Rating System

Preparation
- Register Development
- Appoint Sahel Qualified Professional
- Conduct Workshops

Pre-certificate
- Review and Update
- Issue Design Submission
- Review by Sahel Assessor
- Achieve Pre-Certificate

Certificate
- Review and Update
- Issue Construction Submission
- Review by Sahel Assessor
- Achieve Certificate

Renewal Certificate
- Appoint Sahel Qualified Professional
- Review and Update
- Issue Certificate Renewal Submission
- Review by Sahel Assessor
- Achieve Renewal Certificate

Sahel Building Rating System

Preparation
- Register Development
- Appoint Sahel Qualified Professional
- Conduct Workshops

Pre-certificate
- Review and Update
- Issue Design Submission
- Review by Sahel Assessor
- Achieve Pre-Certificate

Certificate
- Review and Update
- Issue Construction Submission
- Review by Sahel Assessor
- Achieve Certificate

Renewal Certificate
- Appoint Sahel Qualified Professional
- Review and Update
- Issue Certificate Renewal Submission
- Review by Sahel Assessor
- Achieve Renewal Certificate

Sahel Community Rating System

Certificate
- Review and Update
- Issue Construction Submission
- Review by Sahel Assessor
- Achieve Certificate

Renewal Certificate
- Appoint Sahel Qualified Professional
- Review and Update
- Issue Certificate Renewal Submission
- Review by Sahel Assessor
- Achieve Renewal Certificate

Figure 22: The Sahel Rating System process chart

2.4 Key team members

Figure 23: Sahel team members

2.4.1 Asset Owner

It is an entity that owns the asset or project and finally applies for the pre-certificate and certificate – typically a developer or owner.

The asset owner assumes responsibility for applying for the certificate and signing the Accessibility Statement and Strategy. This responsibility, including compliance with Sahel Rating System criteria, only transfers during a change in asset ownership, regardless of whether the asset is managed by or leased to another party.

2.4.2 Asset Developer

An Asset Developer, which may also be an asset owner, is involved in the process of planning, financing, management and overseeing the construction of a diversity of assets. Overall, developers play a critical role in shaping the asset's function at an early design stage.

2.4.3 Sahel Qualified Professional

A Sahel Qualified Professional (SQP) is an individual, who has undertaken a training conducted by the DMT and has passed the assessment. Every project should have a SQP as a team member to follow up on all Sahel Rating System processes during the project's design, construction and operational stage. Their responsibility is to ensure that the asset fulfils all requirements agreed in the applicability check stage along the pre-certificate rating, certificate rating and certificate renewal rating process.

A SQP is involved in the Concept and Detailed Master Plan and ensures that Accessibility Strategies are included and submitted to the Assessor.

2.4.4 Assessor

The Sahel Rating System Assessor, a representative body appointed by the DMT, conducts on-site audits, reviews design documents and Accessibility Statements and Strategies. This process shall be agreed upon at the project's inception stage.

The Assessors can challenge Statements and Strategies by conducting on-site audits or design reviews.

The DMT shall certify the asset upon confirmation from the Assessor who conducted the Accessibility Statement and Strategy review or on-site audit of the certified asset.

2.4.5 Accessibility Consultant

An individual with expertise in accessibility and inclusive design holds a degree, diploma, or certificate recognized by the relevant certifying institution. Additionally, this individual may be accredited by a national or international accreditation or regulatory body, demonstrating a certain level of competence and expertise.

The Sahel Rating System rewards their contribution to the design or construction process. The main responsibility of the Accessibility Consultant is to provide guidance for the design and asset management team to timely and accurately implement adequate accessibility solutions and this person engages with the SQP.

The same person can also perform the role of a SQP.

2.4.6 Accessibility Body

This may consist of various professional experts in different fields, representatives of the administration and/or companies, users with specific needs or neighbors of a community who express their needs and expectations for a future renovation of their neighborhood. The Accessibility Bodies are consulted when the Accessibility Consultant, SQP, Sahel Rating System Assessor or DMT consider it necessary.

2.4.7 Certifying Institution

An organization responsible for maintaining, managing and operating the Sahel Rating System, providing training and issuing certificates and credentials to professionals. DMT may perform the role of Certifying Institution.

Table 5: Qualifications, Roles and Responsibilities

	Sahel Qualified Professional	Accessibility consultant	Accessibility body
Pre-qualification	• Trained in the Sahel Rating System process in the three tiers (Communities, Public Realm and Buildings), certified by DMT • Understanding fundamental principles of universal design. • Understanding the Sahel Rating System requirements and the professionals involved to meet them. • Desirable: Experienced in multiple building types and urban planning developments, able to propose solutions that cater to diverse abilities and population groups. • Field of expertise: (from DMT Specialties and Subspecialties on EPLS) ◦ Architecture Engineering ◦ Interior Design Engineering ◦ Landscaping Engineering ◦ Urban Planning ◦ Sustainable Architecture ◦ Environmental Architecture ◦ Building Restoration Engineering ◦ Access Engineering, Safety and Evacuation ◦ Landscaping Engineering ◦ Sustainable Architecture ◦ Environmental Architecture ◦ Sustainability and Green Building Engineering ◦ Management and Building Materials ◦ Fire Protection Engineering and Firefighting Systems ◦ Engineering of Sanitary Installations	• Knowledgeable in local legislation, regulations, codes and standards in accessibility and universal design. • Experienced in diverse building types and urban planning, capable of assessing the needs of various abilities and disabilities across the spectrum of human functioning. • Expert knowledge of industry standards. • Field of expertise: (from DMT Specialties and Subspecialties on EPLS) ◦ Architecture Engineering ◦ Interior Design Engineering ◦ Urban Planning ◦ Civil, Construction and Infrastructure Engineering	• Individuals or different users groups in the community • Accessibility experts • Advocacy organizations • Government agencies • Industry representatives and relevant professionals

	Sahel Qualified Professional	Accessibility consultant	Accessibility body
Educational background	• Locally recognized bachelor's degree academic qualification in architecture/landscape/urban planning/civil engineering. • UAE attested educational certificates and international degrees	• Locally recognized master's degree academic qualification in architecture/landscape/Urban planning. • UAE attested educational certificates and international degrees	
Experience required	• 5 years professional experience within their respective field. • n addition to DMT Training Course, basic and general knowledge in accessibility and universal design is a plus. • Perform assessments, create reports, and offer advice on respective field.	• 5-10+ years professional specializing in accessibility and universal design in their respective field such as architecture, engineering, urban planning, etc.) • Engage in design, assessment, policy development, and training across all domains. • Senior level in the field of accessibility either through policy development and/or standards or as a lead consultant to the professional development of other accessibility professionals. • Membership in international organizations with certifications/supporting documents showing Professional Associations (if any)	
Responsibilities in Sahel Rating System	• For all-sized projects. • Organizes and plans community engagement. • Client side or nominated within the design or construction team.	• Extensive technical knowledge and experience. • Qualified accessibility expert/consultant. • Client side/Nominated within the design or construction team.	• To champion accessibility initiatives by advocating for the needs of different user groups or other access challenges.

	Sahel Qualified Professional	Accessibility consultant	Accessibility body
	• Conducts detailed design reviews of projects including specification and product assessments, site visits and report writing. • For existing buildings, conducts audits to identify potential challenges and improvements to pass the rating system • Conducts commissioning exercises and provides verification reports. • Engaged throughout the project life cycle. • Prepares/reviews Accessibility Strategy and Statement and submits to the Assessor • Prepares/review project brief.	• Conducts detailed design reviews of projects including specification and product assessments, site visits and report writing. • For existing buildings, conducts audits to identify potential challenges and improvements beyond the minimum standards to score higher points in the rating system. • Conducts commissioning exercises with fully equipped tools and provides verification reports. • Provides alternative solutions and specialist advice at each project stage. • Reviews accessibility strategy and agree with the client. • Reviews project brief. • Attend meetings with clients, collaborators, stakeholders, and partners. • Insured (for liability).	• Provide firsthand insights and feedback on accessibility features and usability. • Attend meetings (use feedback, decisions to be made on local level e.g. surveys) • Advise on the use of technologies and test products • Consulted for additional advice for local contacts
Training background	• DMT Training on the Sahel Rating System and on accessibility.	• Local and international training certifications with supporting documents (if any). • Regular attendance of industry CPDs.	

2.5 Handbooks explained – Mandatory requirements

Handbook explained – Obligatory credits

TA.2.1.6 Accessible e-vehicles charging stations

2.1.6.1 Intent:

To support and facilitate sustainable transportation practices, including the adoption of electric accessible vehicles, and enhance the convenience of charging infrastructure, allowing users to charge their vehicles while parked for other activities.

2.1.6.2 Requirements:

Mandatory:

Demonstrate a strategy for accessible electric vehicle charging stations provision within the assessed community including:

   a. As a minimum, the following locations are required to have accessible EV charging station:
      i. Emirate, municipality, and district-level open spaces
   …

   b. Accessible E-vehicles charging stations shall be in accordance with **"Sahel Building Rating System – TA.1.07 Accessible e-vehicles charging stations"**

2.1.6.3 Pre-certificate rating credits:

This is a requirement for new project. There are no credit points awarded.

Credit points awarded for renovation projects: 10. For credits breakdown refer to **"Sahel Building Rating System – TA.1.07 Accessible e-vehicles charging stations"**

2.1.6.4 Certificate rating credits:

This is a requirement for new project. There are no credit points awarded.

Credit points awarded for renovation projects: **10. For credits breakdown refer to "Sahel Building Rating System – TA.1.07 Accessible e-vehicles charging stations"**

2.1.6.5 Pre-certificate rating submission:

An analysis report evaluating the future demands in EV charging infrastructure including their usage, trends, and feedback at concept stage.

…

2.1.6.6 Certificate rating submission:

An updated strategy of the implemented accessible electric vehicle charging stations within the assessed community which includes the number and distribution per parking space and the types of accessible parking spaces (standard, limited mobility, family, and accessible van).

…

2.1.6.7 References:

ROW-603 Abu Dhabi Urban Street Design Manual

…

Credit code and title.

The intent behind the credit.

Description of the requirements that must be achieved to fulfill the credit's intent.

Descriptions of the materials that must be submitted to prove compliance with the credit requirements at the certificate application level.

Description of how the credit points are awarded on the pre-certificate application level for both "Recommended" and "Best practice" requirements.

Descriptions of the documents that must be submitted to prove compliance with the credit requirements at the pre-certificate application level.

Figure 24: Criterion from the Sahel Community Rating System

3 Communities

3.1 IID.3 Inclusive Integrated Design

This category evaluates the incorporation of inclusive design principles, which means designing for the diversity of all users. It focuses on incorporating inclusive design practices at early project stages, such as developing an accessibility strategy and statement, including accessibility bodies and consultants in the design process, and quality checks of accessibility-sensitive and universally designed asset elements throughout the construction process of new developments and renovations.

Table 6: Inclusive Integrated Design

IID	Inclusive integrated design	Requirement type	Credit points applicability	
			New community developments/ redevelopment	Existing community renovation
IID.3.01	Accessibility strategy at the early design stage of the development/ redevelopment	Mandatory	R	75
IID.3.02	Consulted accessibility pre-design statement for development/ redevelopment	Recommended	25	25
IID.3.03	Accessibility Consultant from the early design stage of development/ redevelopment	Recommended	10	10
IID.3.04	Accessibility Consultant at the construction stage of development/ redevelopment	Recommended	30	30
	Total		**65**	**140**

3.1.1 IID.3.01 Accessibility strategy at the early stage of the development/renovation

3.1.1.1 Applicability:

Applicable to:

a) All new communities

b) All communities undergoing renovations

3.1.1.2 Intent:

To promote accessibility and universal design considerations and goals from the early stage of the development/renovation.

3.1.1.3 Requirements:

Mandatory:

The Sahel Strategy shall be prepared for the Concept Master Plan and Detailed Master Plan for multiple buildings/ multiple plots. Ideally at pre-design but no later than the concept design stage of the development/renovation of the Sahel Rating System process, the SQP (Sahel Qualified Professional) shall prepare an Accessibility Statement and Strategy. Both the Accessibility Strategy and Accessibility Statement shall include the following:

a) 10 credits in renovation.

i. Appointment of a SQP (the designated team member responsible for the follow up the Accessibility Strategy for the Master Plan at Concept Master Plan and Detailed Master Plan stage).

ii. Appointment of a SQP (the designated team member responsible for the follow up of the Sahel Community Rating System process).

iii. The SQP shall follow up and give guidance to design, construction and management teams at the following appropriate stages:

iv. Master Plan level:

a. Set up an IID Implementation Strategy process chart, team structure and roles which demonstrate the transition between development stages and manage the contribution from all disciplines when implementing accessibility into the design.

b. Set up workshops with different team members.

c. cCheck drawings and designs.

d. Consider how potential change in using the land may affect accessibility and universal design in the future.

e. Consider how the Master Plan can be split into different communities to apply the Sahel Community Rating System.

f. Check all specifications.

g. gUtilize scorecards of the Sahel Community Rating System as a benchmark guidance to evaluate the development/renovation of the community during the Concept Master Plan and Detailed Master Plan stage.

h. Review and update credit submissions on a regular basis throughout the design process of the Master Plan.

i. Write and submit a report with all Accessibility Strategies based on the Sahel Community Rating System for Concept Master Plan and Detailed Master Plan.

j. Issue the final Master Plan credit submissions and report to the Assessor.

v. Design stage:

    a. Set up a team structure and roles (Check if an Accessibility Consultant or Accessibility Body is involved if required) which demonstrate the transition between development stages and manage the contribution from all disciplines when implementing accessibility into the design.

    b. Set up workshops.

    c. Check drawings and design.

    d. Check all specifications.

    e. Utilize scorecards and write an Accessibility Statement and Strategy.

    f. Review and update credit submissions and Accessibility Statement and Strategy on a regular basis throughout the design process.

    g. Issue the final pre-certificate credit submission and Accessibility Statement and Strategy to the Assessor.

vi. Construction stage:

    a. Set up a team structure and roles (Check if an Accessibility Consultant or Accessibility Body is involved if required) which demonstrate the transition between development stages and manage the contribution from all disciplines when implementing accessibility into the construction.

    b. Set up workshops.

    c. Address changes or comments received from the Assessor at the design stage.

    d. Check modified drawings and designs (if applicable).

    e. Check all specification and samples provided by the contractor.

    f. Utilize scorecards and write an Accessibility Statement and Strategy.

    g. Site visits/assessment and what needs to be modified. To undertake this task, it will be necessary to visit the site at least three times:

        • When space dimensions and levels (including levels between building entrances and building plot exteriors) are defined.

        • When doors, openings and circulation corridors are defined and, at the same time, all fittings' characteristics (sanitaryware, ironmongery, flooring materials, etc.) shall be checked.

        • Before the handover.

    h. Review and update credit submissions and Accessibility Statement and Strategy on a regular basis throughout the construction process.

    i. Issue the final certification credit submission and Accessibility Statement and Strategy to the Assessor.

    j. Certificate renewal stage:

    k. Verify that all elements of the sections from CM.3.01 to CM.3.08 are implemented and reviewed annually to ensure ongoing compliance and performance. This review should also be conducted following tenant relocation or partial building vacancy.

    l. Check if, in the event of any changes in occupancy, structure and or extensions and the applied chapters TA.3, IC.3, EFE.3, EQC.3, HC.3, DA.3, OC.3 and ESP.3 achieve the minimum credits required.

    m. Utilize scorecards and update the Accessibility Statement and Strategy.

    n. Review and update credit submissions.

    o. Issue the final renewal certificate credit submission to the Assessor.

b) 15 credits in renovation.

   i. Information on all buildings planned within the masterplan area/community dependent on zones and building types (if present) and the surface required to meet the accessibility requirements of the Sahel Community Rating System and Sahel Building Rating System.

   ii. Information on all public realm objects planned within the masterplan area/community dependent on zone and object type, and the surface required to meet the accessibility requirements of the Sahel Community Rating System and Sahel Public Realm Rating System.

   iii. If housing is present and applicable, include the minimum percentage of accessible housing/type c units (units designed to offer accessible entry and functionality regardless of who the residents will be) in new developments according to the Sahel Building Rating System.

   iv. Information on meetings and/or workshops with design team members and relevant stakeholders in relation to the universal design challenges and opportunities.

   v. Narrative describing accessible and universal design solutions addressing various user groups, covering location and site-specific requirements (e.g., site slope gradients, sun exposure, existing and/or native planting, existing buildings, public realm or infrastructure, and heritage status).

   vi. Refer to required standards (e.g., DMT manuals, international best practices and other documents to be used which impacts accessibility and universal design).

c) 50 credits in renovation.

   i. A breakdown of the timeframe for implementing developments/redevelopments and renovations.

3.1.1.4 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **75**.

3.1.1.5 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **75**.

3.1.1.6 Pre-certificate rating submission:

   a) A report outlining the proposed Accessibility Statement and Strategy at the design stage providing information of the development/renovation providing information according to the mandatory requirements, to meet at least the minimal level of Sahel Community Rating System or the minimum requirements to meet at least the rating level that is envisioned.

   b) Process chart for the IID developed at project inception, detailing:

   i. Team structure listing team members and their roles.

   ii. Design milestones and workshops listing participants, goals, expected outcomes, required actions with tasks assignments;

   iii. Methodology for ensuring appropriate stakeholders are involved, including relevant regulatory authorities and permit agencies.

   c) Narrative summarizing initial vision, objectives and targets set jointly by the project team for the project.

   d) Implementation strategy for achieving transition between project stages and project packages.

   e) Meeting minutes, action items and team member responsibilities from key

   f) workshops held as part of the IID.

   g) Narrative highlighting the reasons for any changes from the initial IID process chart.

   h) Scorecards and Accessibility Statement and Strategy to provide proof of achievement.

3.1.1.7 Certificate rating submission:

a) A comprehensive report confirming that the Accessibility Statement and Strategy derived at the design stage of the development/renovation has complied and with mandatory and aimed enhanced requirements in the construction and completion stage, meeting at least the minimal level of Sahel Community Rating System or the minimum rating level that is envisioned.

b) Process chart for the IID developed at construction stage, detailing:

c) Team structure listing team members and their roles.

d) Construction milestones and workshops listing participants, goals, expected outcomes, required actions with tasks assignments; and

e) Methodology for ensuring appropriate stakeholders are involved.

f) Implementation strategy for achieving transition between project stages and project packages.

g) Meeting minutes, action items and team member responsibilities from key

h) workshops held as part of the IID.

i) Narrative highlighting the reasons for any changes from the initial IID process chart and listing successes and challenges during construction stage.

j) Scorecards and Accessibility Statement and Strategy to provide proof of achievement.

3.1.1.8 References:

a) ADG-009 Abu Dhabi Guideline for Engineering Value

b) RIBA Plan of Work: Inclusive Design Overlay

c) Barrier-free Concept, Germany

3.1.2 IID.3.02 Consulted accessibility pre-design and statement for development/renovation

3.1.2.1 Applicability:

Applicable to:

    a) All new communities.

    b) All communities undergoing renovations.

3.1.2.2 Intent:

To ensure that accessibility, universal design considerations and goals are integrated from the pre-design stage of development /redevelopment by engaging Accessibility Bodies, representing diverse user groups, including families, seniors, and individuals with varying abilities and disabilities, and an Access Consultant to ensure that all actions are implemented in a timely manner.

3.1.2.3 Requirements:

Recommended:

At pre-design stage, the SQP prepares an Accessibility Statement and Strategy providing information which should:

For new assets developments/redevelopments:

    a) Be consulted with an Accessibility Consultant at the pre-design stage. The consultation may be a report on an Accessibility Statement and Strategy proposal with comments and suggestions from the consulting party or minutes from a meeting with the Accessibility Consultant. In either case, the SQP and/or design team needs to confirm in writing having consulted an Accessibility Consultant at the pre-design stage.

For renovation projects:

    b) Be consulted with an Accessibility Body at the pre-design stage. The consultation may be a report on an Accessibility Statement and Strategy proposal with comments and suggestions from the consulting party or minutes from a meeting with the Accessibility Body. In either case, the SQP and/or design team needs to confirm in writing having consulted an Accessibility Body at the pre-design stage.

    c) Demonstrate that all actions are planned and can be implemented in a timely manner in redevelopments, including a detailed breakdown of the timeframe for implementing new accessibility and universal design developments or modifications to existing ones, including specific stages and milestones, as in the example that follows:

Table 7: Milestones timeframe for redevelopments

Objects	Quantities	Deadlines
Sidewalks and crossings	5432m (100%) 190 (100%)	3 years
Playgrounds	21 (50%)	3 years
Playgrounds	42 (100%)	4 years
Bus Shelters	15 (33%)	2 years
Bus Shelters	45 (100%)	7 years
Public buildings	2 (50%)	5 years
Public buildings	4 (100%)	5 years

Once planned, submit each stage of the action plan to Sahel Community Rating System to obtain the pre-certificate and certificate rating credits for each stage.

3.1.2.4 Pre-certificate rating credits:

Table 8: IID.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
25	0	Consult the Accessibility Statement and Strategy with an Accessibility Consultant at the pre-design stage.
0	5	Consult the Accessibility Statement and Strategy with an Accessibility Body representing persons with access needs at the pre-design stage.
0	20	Prepare a timeframe from the commencement of project outlining when the accessible and universal design provisions will be implemented in the redevelopment.

3.1.2.5 Certificate rating credits:

Table 9: IID.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
25	0	Demonstrate that any changes made during the pre-design stage will be communicated to the Accessibility Consultant.
0	5	Demonstrate that any changes made during the pre-design stage will be communicated with to Accessibility Body.
0	20	Provide evidence that the project timeline for implementing accessible and universal design provisions in the redevelopment has been met or explain any changes to the original timeframe and provide Updated implementation schedule.

3.1.2.6 Pre-certificate rating submission:

a) Report detailing the consultation with an Accessibility Consultant or Accessibility Body representing persons of special needs, families, and the elderly during the pre-design stage, including their expertise (name, portfolio and company's registration or profile) and details of the survey if conducted such as time, date, subject matter, and survey questions, summary of discussions, feedback, and recommendations provided during the consultation.

b) A written record of any adjustments or modifications made to the pre-design based on the consultation.

c) A policy report detailing the timeframes, action plans and specific milestones to be achieved at each stage.

3.1.2.7 Certificate rating submission:

a) A comprehensive report confirming that the Accessibility Consultant and Accessibility Body have been informed about any changes made in the pre-design stage.

b) Report and handover certificates with start and finish dates of conducted implementation in redevelopments, details confirming the timeframes and milestones achieved at each stage during the construction and completion.

3.1.2.8 References:

a) ADG-009 Abu Dhabi Guideline for Engineering Value
b) RIBA Plan of Work: Inclusive Design Overlay
c) Barrier-free Concept, Germany

3.1.3 IID.3.03 Accessibility Consultant from the early design stage of development/renovation

3.1.3.1 Applicability:

Applicable to:

  a) All new communities.
  b) All communities undergoing renovations.

3.1.3.2 Intent:

To ensure that SQPs and design teams incorporate accessibility expertise throughout the design process, particularly for complex projects, an Accessibility Consultant will be engaged to provide guidance on innovative solutions that exceed the requirements of the Sahel Rating System and align with international best practices. The Accessibility Consultant may also collaborate with an Accessibility Body during the design stage to ensure that diverse perspectives are considered.

3.1.3.3 Requirements:

Recommended:

An Accessibility Consultant shall be appointed for the project's design stage and will be responsible for ensuring that the project is accessible and universally designed following international best practice and considering the latest assistive technology. The Accessibility Consultant with recognized training and practice in accessibility and universal design can also be the SQP if accredited by DMT.

3.1.3.4 Pre-certificate rating credits:

Table 10: IID.3.03 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
10	10	Appointment of Accessibility Consultant

3.1.3.5 Certificate rating credits:

Table 11: IID.3.03 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
10	10	Appointment of Accessibility Consultant

3.1.3.6 Pre-certificate rating submission:

  a) Contract with an Accessibility Consultant for the subject project with a defined engagement date matching design period.
  b) Details of the Accessibility Consultant's qualifications, certifications, and relevant experience.
  c) Brief overview of the Accessibility Consultant's role within the design team and their responsibilities in ensuring accessibility compliance.

3.1.3.7 Certificate rating submission:

No submission required.

3.1.3.8 References:

a) ADG-009 Abu Dhabi Guideline for Engineering Value
b) RIBA Plan of Work: Inclusive Design Overlay
c) Barrier-free Concept, Germany

3.1.4 IID.3.04 Accessibility Consultant at the construction stage of the development/renovation

3.1.4.1 Applicability:

Applicable to:

  a) All new communities.
  b) All communities undergoing renovations.

3.1.4.2 Intent:

To ensure that SQP and construction teams incorporate accessibility expertise throughout the design process, particularly for complex projects, an Accessibility Consultant will be engaged to provide guidance on innovative solutions that exceed the requirements of the Sahel Rating System and align with international best practices. The Accessibility Consultant may also collaborate with an Accessibility Body during the construction stage and pre-completion checks to ensure that diverse perspectives are considered.

3.1.4.3 Requirements:

Recommended:

An Accessibility Consultant is appointed to perform construction, and pre-completion checks of implemented accessibility and universal design in the community. Their responsibility is to ensure that the construction site is accessible, safe and usable for all. If required, the Accessibility Consultant will contact an Accessibility Body. The requirements for the Accessibility Consultant position are outlined below:

  a) Check material submitted by contractors.
  b) Check mock-up areas and involve an Accessibility Body if required.
  c) Advise on accessibility and universal design solutions requested during the construction stage, if required.
  d) Support with pre-completion checks.

3.1.4.4 Pre-certificate rating credits:

Table 12: IID.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
30	30	Confirm that an Accessibility Consultant will be appointed at the construction stage.

3.1.4.5 Certificate rating credits:

Table 13: IID.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended**
30	30	Confirm the appointment of Accessibility Consultant at the construction stage.

3.1.4.6 Pre-certificate rating submission:

Submit an intent to involve an Accessibility Consultant at the construction stage as part of the report created by the SQP to the Assessor.

3.1.4.7 Certificate rating submission:

a) Contract with an Accessibility Consultant for the subject project with a defined engagement date matching design period.
b) Details of the Accessibility Consultant's qualifications, certifications, and relevant experience.
c) Brief overview of the Accessibility Consultant's role within the construction team and their responsibilities in ensuring accessibility compliance.
d) Reports of visits and advice provided throughout the construction stage along with date, time and concerns raised, or agreements made.
e) Construction report concerning compliance accessibility and universal design.

3.1.4.8 References:

a) ADG-009 Abu Dhabi Guideline for Engineering Value
b) RIBA Plan of Work: Inclusive Design Overlay
c) Barrier-free Concept, Germany

3.2   TA.3 Transportation Access

This category assesses the provisions for access and mobility of all users in public and private transportation stops and modes, such as buses, trams, gangways, ferries, taxis, and cycles. Transportation Access addresses aspects such as availability, safety, convenience, and comfort of transportation and parking options and their connection within and between communities.

Table 14: Transportation Access

TA	Transportation Access	Requirement type	Credit points applicability	
			New community development	Existing community renovation
TA.3.01	Accessible parking	Mandatory	R	150
TA.3.02	Enhanced accessible parking	Recommended	10	160
		Best Practice	45	60
TA.3.03	Accessible non-standard cycle parking	Mandatory	R	40
TA.3.04	Enhanced accessible non-standard cycle parking	Recommended	5	5
TA.3.05	Accessible passenger loading zone and accessible taxi stands	Mandatory	R	80
TA.3.06	Enhanced accessible passenger loading zone and accessible taxi stands	Recommended	4	30
		Best Practice	4	60
TA.3.07	Accessible e-vehicle charging stations	Mandatory	R	10
TA.3.08	Accessible public transportation stops network	Mandatory	R	60
TA.3.09	Accessible public transportation shelter design	Mandatory	R	100
	Total		**68**	**755**

3.2.1 TA.3.01 Accessible parking

3.2.1.1 Intent:

To ensure enough designated parking spaces for private vehicles are provided near community-level public-use facilities, and to allow equitable and independent access for all users at convenient and accessible locations.

3.2.1.2 Requirements:

Mandatory:

Demonstrate a strategy for all accessible parking (Figure 25) within the masterplan area ensuring that, to be in accordance with **Abu Dhabi Urban Street Design Manual (ROW 603), Abu Dhabi International Building Code, 2013, Standards Guideline for Standard Drawings TR- 541 (Part 1), ADG 39 Abu Dhabi Transport Impact Study Guidelines, TR-514: Road Geometric Design Manual** and relevant ITC guidelines ensuring:

a) **30 Credits in renovation.**
   i. Standard accessible parking spaces and accessible van parking spaces shall be provided in all buildings and facilities of public use, in accordance with **Abu Dhabi International Building Code, 2013** and **"Sahel Building Rating System – TA.1.01 Accessible parking"**.

b) **50 credits in renovation.**
   i. Standard accessible parking spaces including van accessible parking spaces (if applicable), shall be provided in buildings and facilities of public use in accordance with the **"Sahel Building Rating System – TA.1.01 Accessible parking"**, within 50m from the accessible entrances, calculated via the Direct Route Indices Method, in the following land uses (As per Abu Dhabi Trip Generation Manual), but not limited to:
      a. Commercial group - Regional Shopping Centers and malls, Local Shopping Centre, Superstore, souk, high-end restaurants, furniture stores.
      b. Office group
      c. Immigration Centers and visa offices
      d. Governmental offices and institutional facilities
      e. Exhibition galleries, Museums
      f. Lodging facilities – 3-star hotels and below, 4-star hotels and above, suites and apartment hotels
      g. Recreational group: wedding halls, parks, social clubs, sports club, special sports center, arenas
      h. Government and private hospitals and clinics
      i. Book stores, arts and crafts centers.
      j. Educational institutions
   ii. Family parking and ambulant parking spaces, shall be provided in buildings and facilities of public use in accordance with the **"Sahel Building Rating System – TA.1.01 Accessible parking"** within 50m from the accessible entrances, calculated via the Direct Route Indices Method, in the following land uses (As per Abu Dhabi Trip Generation Manual), but not limited to:
      a. Commercial group - Regional Shopping Centers and malls
      b. Museums
      c. Transportation hubs
      d. Recreational group: arenas, stadiums and amusement parks
      e. Government and private hospitals

iii. For residential developments, standard accessible parking spaces and accessible van parking spaces shall be provided within 50m from the accessible entrances of the residential building (including both villas and apartments), calculated via the Direct route indices method.

iv. In existing residential buildings, where there is no provision for accessible parking or where the distance between the accessible parking and accessible entrance is higher, accessible passenger loading zones shall be provided within 100m from the accessible entrance, calculated via the Direct Route Indices Method.
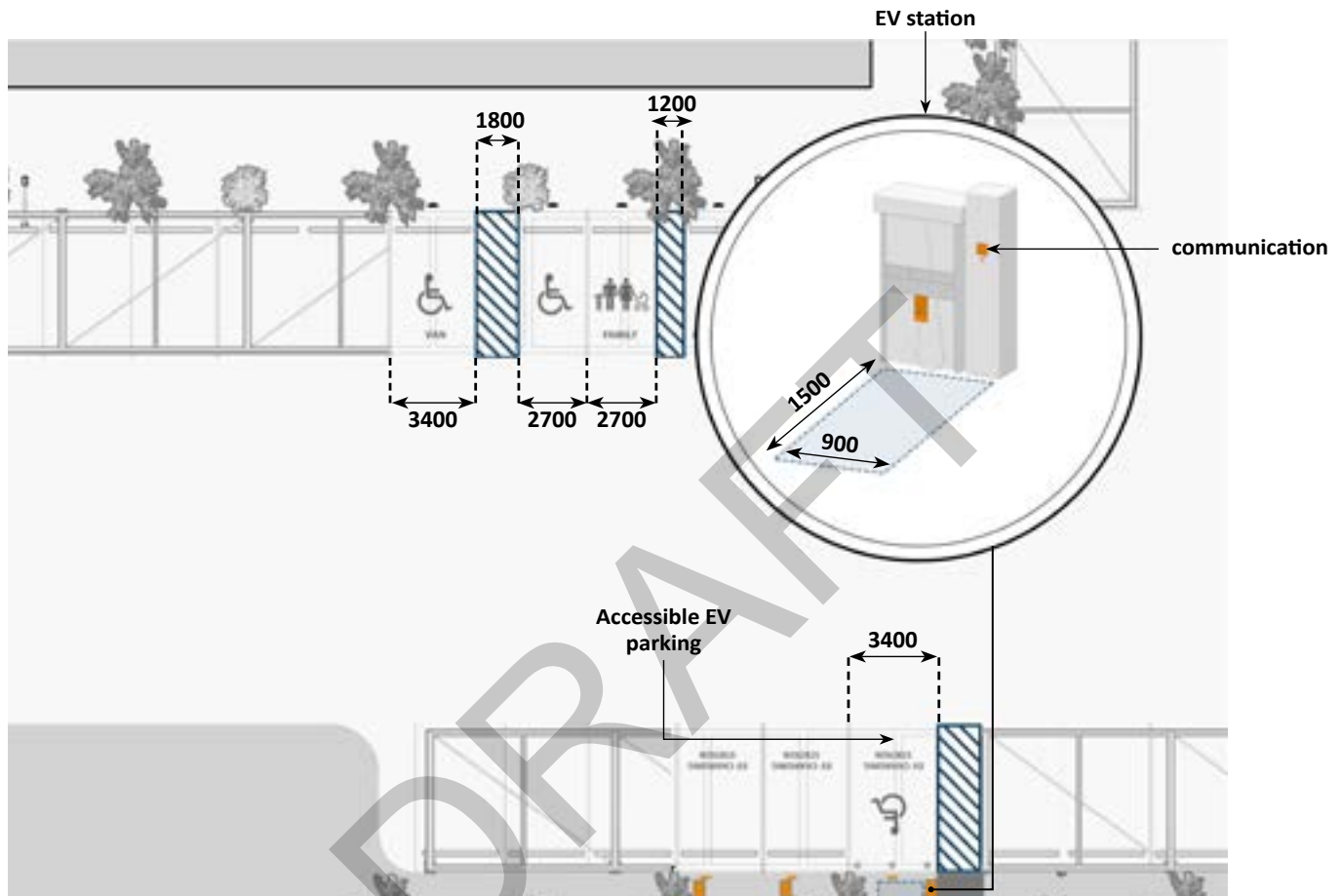

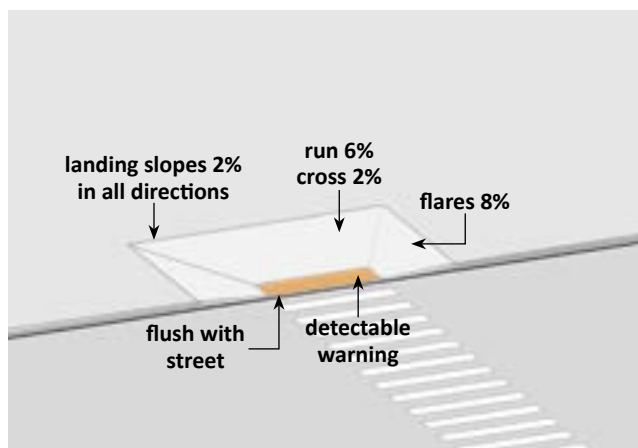**Figure 25:** Off street accessible parking spaces (plan view)

Figure 26: Curb Ramp

    c) 30 Credits in renovation.

      i. Accessible on-street parking spaces shall be strategically located near key destinations, not more than 350m (within a 5 to 10-minute walk), near facility or buildings of public use including supermarkets, healthcare facilities, parks, religious facilities, major transportation hubs, educational facilities, etc., calculated via the Direct Route Indices Method,

      ii. To prioritize safety, accessible on-street parking spaces shall be placed away from busy intersections, narrow streets with heavy traffic, or locations with limited visibility.

    d) 12 Credits in renovation.

      i. An effective GIS system shall locate the availability of all types of accessible on-street and off-street parking facilities at different community levels.

    e) 5 Credits in renovation.

      i. The on-street accessible parking shall be in accordance with "Sahel Public Realm Rating System – TA.2.01 Accessible parking".

    f) 23 Credits in renovation.

      i. The entry and exit access between the parking lot and public realm (accessible pedestrian paths shall be located away from intersections and shall be designed for low vehicular speed and shall be well lit.

3.2.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **150**.

3.2.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **150**.

3.2.1.5 Pre-certificate rating submission:

a) Conceptual masterplan and narratives illustrating the proposed locations, shading strategies, dimensions and provisional requirements including their types and share in the total parking space of off-street and on-street accessible parking spaces, ambulant, family, and accessible van parking spaces.

b) A detailed strategy showing how the accessible parking spaces, including family parking spaces, ambulant parking spaces, and accessible van parking form a network coordinated with the occupancies within the community and the distance or time covered to reach them, to ensure proximity to the nearest accessible entrance to a building or facility, and other key destinations within the masterplan area.

3.2.1.6 Certificate rating submission:

a) As-built drawings and comprehensive report along with photographic evidence confirming the compliance to exact locations, shading designs, dimensions and provisional requirements in providing all necessary types and shares of off-street and on-street accessible parking spaces, ambulant, family, and accessible van parking spaces within the total parking spaces, including any changes and approval made during the construction stage.

b) Updated strategy and photographs of the accessible parking spaces, including family parking spaces, ambulant parking spaces, and accessible van parking highlighting their actual distances from the accessible entrances of the building or facility and other key destinations within the assessed community, and the continuous accessible routes between them.

3.2.1.7 References:

a) ROW-603 Abu Dhabi Urban Street Design Manual
b) TR-541: Standard Drawing Guidelines
c) Abu Dhabi International Building Code, 2013
d) Abu Dhabi International Accessibility Standards, 2013
e) Abu Dhabi Public Realm Design Manual
f) DP-306_Estidama Pearl Building Rating System
g) DP-307-Estidama Pearl Community Rating System
h) Abu Dhabi Urban Street Design Manual (ROW 603)
i) Abu Dhabi International Building Code, 2013
j) ADG 39 Abu Dhabi Transport Impact Study Guidelines
k) TR-514: Road Geometric Design Manual
l) Abu Dhabi Trip Generation Manual

3.2.2 TA.3.02 Enhanced accessible parking

3.2.2.1 Intent:

To ensure a substantial number of designated parking spaces for private vehicles are provided near community-level public-use facilities, to allow for enhanced, equitable and independent access for all users at convenient and accessible locations.

3.2.2.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a strategy for all accessible parking within the masterplan area should ensure:

a) Standard accessible parking spaces, accessible van parking spaces, family parking, and ambulant parking spaces, are provided within 50m from the accessible entrances, calculated via the Direct Route Indices Method, in:
   i.   All public open spaces
   ii.   All buildings and facilities of public use
   iii. Residential buildings and developments.
b) For residential developments, standard accessible parking spaces and accessible van parking spaces should be provided within 30m from the accessible entrances of the residential building (including both villas and apartments), calculated via the Direct Route Indices Method.

Best Practice:

a) All enhanced requirements (Best Practice) should demonstrate that all accessible parking spaces within the certification boundary should be in accordance with **"Sahel Building Rating System – TA.1.02 Enhanced accessible parking"**.

3.2.2.3 Pre-certificate rating credits:

Table 15: TA.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	160	Design the parking areas close to entrances of defined building types for all parking types (standard accessible parking, accessible van parking, family parking and ambulant parking)
		Best Practice:
45	60	Design number of spaces, dimensions and other improvements in accordance with **"Sahel Building Rating System – TA.1.02 Enhanced accessible parking"**.

3.2.2.4 Certificate rating credits:

Table 16: TA.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	160	Provide the parking areas close to entrances of defined building types for all parking type (standard accessible parking, accessible van parking family parking and ambulant parking)
		Best Practice:
45	60	Provide number of spaces, dimensions and other improvements in accordance with **"Sahel Building Rating System – TA.1.02 Enhanced accessible parking"**.

3.2.2.5 Pre-certificate rating submission:

Recommended:

Conceptual masterplan and narratives illustrating the proposed locations, dimensions and provisional requirements including their types and improved share in the total parking space of off-street and on-street standard accessible parking spaces, ambulant, family, and accessible van parking spaces.

3.2.2.6 Certificate rating submission:

Recommended:

As-built drawings and comprehensive report along with photographic evidence confirming the compliance to exact locations, dimensions and provisional requirements in providing all necessary types and increased shares of off-street and on-street standard accessible parking spaces, ambulant, family, and accessible van parking spaces within the total parking spaces, including any changes and approval made during the constructionstage.

3.2.3 TA.3.03 Accessible non-standard cycle parking

3.2.3.1 Intent:

To ensure equitable access to cycle parking for all, providing safety and convenience, fostering independence, and facilitating mobility, ultimately creating inclusive environment and active and healthy lifestyles within the community through the establishment of sustainable and inclusive modes of travel.

3.2.3.2 Requirements:

Mandatory:

Demonstrate a strategy for a cycle parking network within the masterplan area/community ensuring that cycle parking spaces Figure 27, 28) including accessible non-standard cycle parking spaces shall be in accordance with **Abu Dhabi Urban Street Design Manual (ROW 603)** and shall:

a) 8 Credits in renovation.
   i. Be provided and designed in accordance with **"Sahel Building Rating System – TA.1.03 Accessible non-standard cycle parking"**.

b) 10 Credits in renovation.
   i. Be positioned in the furnishing zone, adjacent to the cycle lane and accessible pedestrian paths, without protruding into them.
   ii. Be provided within 15m distance from the entrances to buildings, calculated via the Direct Route Indices Method, to encourage cyclists to use their cycles for short trips and errands. As a minimum, the following locations are required to have accessible non-standard cycle parking spaces:
   a. Emirate, municipality, and district-level open spaces
   b. City or town level streetscape (only where charging ports are present)
   c. Public-use buildings such as police stations, gas stations, hospitals
   d. Shopping centers and cultural buildings
   e. Major Transportation hubs
   f. residential occupancy groups

c) 12 Credits in renovation.
   i. Be strategically integrated along the commuter routes within 5 to 10-minute walking distance from the streetscapes, sidewalks, public open spaces, and transit stations and stops to encourage sustainable and inclusive multi-modal transportation options. This includes rental cycle parking and park and & ride facilities.

d) 10 Credits in renovation.
   i. Be provided with shaded rest points strategically positioned along cycling route and near cycle racks, in accordance with Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi (ADG 027).
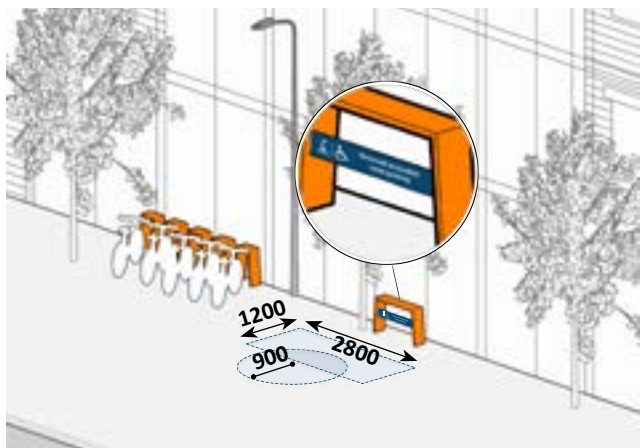
Figure 27: Non-standard cycle parking

3.2.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **40**.

3.2.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **40**.

3.2.3.5 Pre-certificate rating submission:

a) A draft strategy outlining proposed locations and distribution of accessible cycle parking spaces within the total cycle parking space and their proximity to facilities of public use, including transit stations and stops for an inclusive and sustainable mode of transportation network within the masterplan area, as well as changing facilities at the end of rides (if applicable).

b) Concept drawings demonstrating how the cycle parking spaces form a network coordinated with the cycle tracks within the masterplan area, along with their dimensions and shading plans (if outdoors).

3.2.3.6 Certificate rating submission:

a) As-built drawings and comprehensive report along with photographic evidence confirming the compliance to the exact locations and distribution of accessible non-standard cycle parking spaces within the total cycle parking space, and their proximity to facilities of public use, transit stops and stations within the assessed community, as well as changing facilities at the end of rides (if applicable).

b) As-built situations and photographs confirming the locations of cycle parking spaces, including accessible non-standard cycle parking spaces, and the implemented dimensions and shading strategies (if outdoors), focusing on their connectivity with the cycle lanes and continuous accessible paths of travel within the assessed community.

3.2.3.7 References:

a) ROW-603 Abu Dhabi Urban Street Design Manual
b) PR-401 Abu Dhabi Public Realm Design Manual
c) TR-530 Walking and Cycling Master Plan – Network Design
d) ADG-027 - Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi
e) Abu Dhabi International Accessibility Standards, 2013
f) Abu Dhabi International Building Code, 2013

3.2.4 TA.3.04 Enhanced accessible non-standard cycle parking

3.2.4.1 Intent:

To ensure equitable access to cycle parking for all, providing safety and convenience, fostering independence, and facilitating mobility, ultimately creating inclusive environment and active and healthy lifestyles within the community through the establishment of enhanced sustainable and inclusive modes of travel with advanced commitments.

3.2.4.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a strategy for a cycle parking network within the masterplan area ensuring that cycle parking spaces including accessible non-standard cycle parking spaces should be in accordance with **"Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking"**.

3.2.4.3 Pre-certificate rating credits:

Table 17: TA.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
1	1	Design accessible non-standard cycle parking area with 10% of all cycles
3	3	Design accessible non-standard cycle parking area with 10% of all rental parking spaces
1	1	Design accessible non-standard cycle parking area with 5% in residential areas.

3.2.4.4 Certificate rating credits:

Table 18: TA.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
1	1	Confirm provision of accessible non-standard cycle parking area with 10% of all cycles
3	3	Confirm provision of accessible non-standard cycle parking area with 10% of all rental parking spaces
1	1	Confirm provision of accessible non-standard cycle parking area with 5% in residential areas.

3.2.4.5 Pre-certificate rating submission:

Recommended:

    a) Design drawings for enhanced number of the cycle parking spots.

3.2.4.6 Certificate rating submission:

Recommended:

    a) Updated specifications if any changes were made during the construction stage.
    b) Photographs of cycle parking spots.

3.2.5 TA.3.05 Accessible passenger loading zone and accessible taxi stands

3.2.5.1 Intent:

To facilitate safe, efficient, inclusive, and convenient points of access to major public-use facilities or buildings at a community-level, by offering momentary stops as close as possible to the accessible entrances of the facilities for all users.

3.2.5.2 Requirements:

Mandatory:

Demonstrate a strategy for an accessible passenger loading zone network and accessible taxi stands network within the community, in accordance with Abu Dhabi Urban Street Design Manual (ROW 603) and shall:

a) **30 Credits in renovation.**
   i. Be provided at public-use facilities and buildings such as:
      a. Emirate, municipality, and district-level public open spaces
      b. City or town level streetscape
      c. Community facilities
      d. Government and civil entities
      e. Religious facilities
      f. Heritage and cultural facilities
      g. All transportation hubs
      h. Educational facilities
      i. Hospitals and clinics
      j. Hospitality facilities such as hotels, resorts, etc.,
      k. Shopping malls and multi-use retail
      l. Car-free zones (or pedestrian zones)

b) **15 Credits in renovation.**
   i. At least one of the accessible passenger loading zones within a building or facility plot, to be located as close as possible to the nearest accessible entrance, within a maximum of 30 m, calculated via the Direct Route Indices Method, in accordance with Abu Dhabi International Accessibility Standards, 2013.

c) **20 Credits in renovation.**
   i. Be provided, at least one on-street passenger loading zones and accessible taxi stands, within a 350 m distance (within a 5 to 10-min walk) calculated via the Direct Route Indices method.
   ii. Be connected to the adjacent accessible route while staying clear of vehicular travel lanes.

d) **15 Credits in renovation.**
   i. Be designed and planned in accordance with **"Sahel Public Realm Rating System – TA.2.05 Accessible passenger loading zone and accessible taxi stands"**.
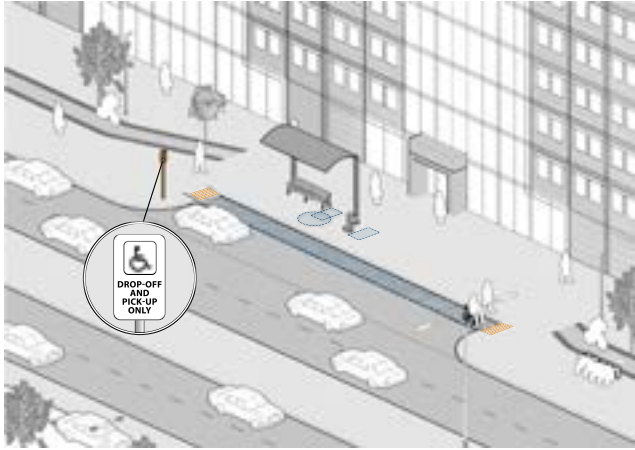
Figure 28: Accessible passenger loading zone

3.2.5.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.2.5.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.2.5.5 Pre-certificate rating submission:

Draft strategy and concept drawings outlining the proposed locations and distribution of accessible loading zones and accessible taxi stands and its proximity to key destinations and high-priority areas, minimum dimensions, and shading strategies, along with a thorough analysis of their potential effectiveness within the community.

3.2.5.6 Certificate rating submission:

Updated strategy and as-built drawings with photographic evidence confirming the exact locations and distribution of accessible loading zones and accessible taxi stands and its proximity to key destinations and high-priority areas, the actual dimensions, shading strategies and their connection with accessible routes, along with a final analytical report of the effectiveness within the community due to the provision of accessible passenger loading zones.

3.2.5.7 References:

a) Abu Dhabi International Accessibility Standards, 2013
b) ROW-603 Abu Dhabi Urban Street Design Manual
c) Guide Drawings on locating Bus stops on Urban Roads
d) TR-520 Technical Circular - Bus Stop Design Standards
e) TR-533 Bus Rapid Transit Planning Standard

3.2.6 TA.3.06 Enhanced accessible passenger loading zone and accessible taxi stands

3.2.6.1 Intent:

To facilitate safe, efficient, inclusive and convenient points of access to all public-use facilities or buildings at community-level, by offering momentary stops as close as possible to the accessible entrances of the facilities for all users.

3.2.6.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

All enhanced requirements (recommended) of the accessible passenger loading zone and accessible taxi stands network within the assessed community should be in accordance with **"Sahel Public Realm Rating System – TA.2.06 Enhanced accessible passenger loading zone and accessible taxi stands"**.

Best practice:

The network of accessible passenger loading zones and accessible taxi stands within the assessed community should include a strategy to position them:

    a) in 50% of all the public transportation stops within the development.
    b) in close proximity to offices, sports facilities, hotels, and retail or shopping buildings that are larger than 2000 sqm.

3.2.6.3 Pre-certificate rating credits:

Table 19: TA.3.06 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
4	30	Design a strategy for the accessible passenger loading zone network and/or accessible taxi stands network that prioritizes all end stops of each public transportation line and provision of drinking fountain at each loading zone
		Best Practice:
2	30	Design a strategy for the accessible passenger loading zone network and/ or accessible taxi stands network that prioritizes 50% of all the public transportation stops within the development.
2	30	Design a strategy for the accessible passenger loading zone network and/ or accessible taxi stands network that prioritizes proximity to offices, sport facilities, hotels, retail, and shopping buildings above 2000 sqm.

3.2.6.4 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
4	30	Confirm the provision of accessible passenger loading zone and/or accessible taxi stands network at all end-stops of each public transportation line and provision of drinking fountain at each loading zone
		Best Practice:
2	30	Confirm that 50% of all the public transportation stops within the development count with accessible passengers loading zones.
2	30	Confirm the installation of accessible passenger loading zone and/or accessible taxi stands network in proximity of offices, sport facilities, hotels, retail, and shopping buildings above 2000 sqm.

3.2.6.5 Pre-certificate rating submission:

Recommended and Best Practice:

a) Draft strategy and concept drawings outlining the proposed locations and distribution of accessible loading zones and accessible taxi stands and its proximity to key destinations and high-priority areas, minimum dimensions, and shading strategies, along with a thorough analysis of their potential effectiveness within the community.

b) Masterplan illustrating the proposed locations of passenger loading zones in relation to 50% of all the public transportation stops within the development, offices, sport facilities, hotels, retail, shopping buildings above 2000 sqm and all end stops of the transit line.

3.2.6.6 Certificate rating submission:

Recommended and Best practice:

a) Updated strategy and as-built drawings with photographic evidence confirming the exact locations and distribution of accessible loading zones and accessible taxi stands and its proximity to key destinations and high-priority areas, the actual dimensions, shading strategies and their connection with accessible routes, along with a final analytical report of the effectiveness within the community due to the provision of accessible passenger loading zones.

b) As-built situations illustrating the proposed locations of passenger loading zones in relation to 50% of all the public transportation stops within the development, offices, sport facilities, hotels, retail, shopping buildings above 2000 sqm and all end stops of the transit line along with provision of drinking fountains at each loading zone.

3.2.7 TA.3.07 Accessible e-vehicle charging stations

3.2.7.1 Intent:

To support and facilitate sustainable transportation practices, including the adoption of accessible electrical vehicles, and enhance the convenience of charging infrastructure, allowing users to charge their vehicles while parked for other activities.

3.2.7.2 Requirements:

Mandatory:

Demonstrate a strategy for accessible electric vehicle charging stations provision within the assessed community including:

a) **4 Credits in renovation.**
   i. As a minimum, the following locations are required to have accessible EV charging station:
      a. Emirate, municipality, and district-level open spaces
      b. City or town level streetscape (only where charging ports are present)
      c. Public service buildings such as police stations, gas stations, hospitals.
      d. Shopping centers or commercial districts.
      e. Major Transportation hubs.
      f. Residential occupancy groups
   ii. Accessible e-vehicle charging stations shall be located as close as possible, within a maximum distance of 50m calculated by Direct Route Indices Method from the nearest accessible entrance of the facility or building.

b) **6 Credits in renovation.**
   i. Accessible e-vehicle charging stations shall be located and provided in accordance with **"Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations"**, wherever applicable at Community level.

3.2.7.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **10**.

For credits breakdown refer to **"Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations"**.

3.2.7.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **10**.

For credits breakdown refer to **"Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations"**.

3.2.7.5 Pre-certificate rating submission:

a) A narrative outlining the proposed strategy for providing accessible electric vehicle charging stations within the assessed community, including the proposed number/share per parking space, the distribution of it and the types of accessible parking spaces (standard, ambulant, family, and accessible van) that will have at least one accessible charging station.

b) Concept drawings showing the proposed locations of the electric vehicle charging stations, its dimensions and proximity to the nearest accessible entrances to facilities/buildings of public use.

c) An analysis report evaluating the future demands in EV charging infrastructure including their usage, trends, and feedback at concept stage.

3.2.7.6 Certificate rating submission:

a) Updated strategy of the implemented accessible electric vehicle charging stations within the assessed community which includes the number and distribution per parking space and the types of accessible parking spaces (standard, ambulant, family, and accessible van).

b) Concept drawings and photographs confirming the installed electric vehicle charging stations, its locations and distribution within the parking spaces, dimensions, and proximity to the nearest accessible entrances to facilities/buildings of public use.

c) Updated report and as-built drawings confirming the required and implemented number of accessible charging stations to meet the future demands after careful analysis in concept stage.

3.2.7.7 References:

a) ROW-603 Abu Dhabi Urban Street Design Manual
b) Abu Dhabi International Building Code, 2013
c) Abu Dhabi International Accessibility Standards, 2013
d) Technical Circular 2017-TMM-0050

3.2.8 TA.3.08 Accessible public transportation stops network

3.2.8.1 Intent:

To optimize the independent use of public transportation, and to reduce single occupancy vehicle use, by managing the demand for travel and through inclusive multi-modal transportation system and its integration with pedestrian and public realm increasing connectivity in the community.

3.2.8.2 Requirements:

Mandatory:

Demonstrate a strategy for accessible public transportation stop network within the assessed community. An accessible and universally designed public transportation stops network shall be in accordance with the Abu Dhabi Standard drawing Guidelines – Part 1 (TR 520) and Abu Dhabi Urban Street Design Manual (ROW 603), and shall:

a) **5 Credits in renovation.**
   i. Distance between the public and private water taxi stops and the land-based taxi stops, passenger loading zones, cycle parking, accessible parking and public transportation stops shall be no more than a short walking distance up to 150m (distances are calculated via the Direct Route Indices method) as in accordance with Land and Water Access Plan (LWAP), Waterfronts Development.

b) **10 Credits in renovation.**
   i. In a community, ensure at least one public transportation stop in each direction to facilitate to everyone in the community easy commuting, and encourage sustainable and inclusive transportation mode for the following:
      a. Emirate, municipality, and district open spaces
      b. Community centers
      c. Retail and commercial facilities
      d. Sports and recreational facilities
      e. Heritage and cultural facilities
      f. Residential buildings
      g. Government facilities
      h. Educational facilities
      i. Healthcare facilities

c) **10 Credits in renovation.**
   i. Where more than one public transportation facility (bus, tram, etc.,) is available to serve a community, ensure at least one type of public transportation stop is available within a walking distance of 350m (5-10 minutes) as calculated via the Direct Route Indices method.

d) **10 Credits in renovation**
   i. Ensure a public transportation stop is available within a 350 m (5-10 minutes) from a public-use building in high and medium population density areas, and within 600 m (within a 10 to 15-minute walk) in low population density areas, calculated via the Direct Route Indices method.

e) **10 Credits in renovation.**
   i. Public transportation stops are located at every 400 m – 600 m interval along a bus/tram/water taxi route for enhanced accessibility and operational efficiency (Figure 31, 32, 33, 34).
   ii. Given that there is no ground availability, or the conditions don't favor positioning the public transportation stop at the proposed location, it can be relocated nearby, as existing utility lines and facilities take precedence.

f) **10 Credits in renovation.**
   i. Encourage multi-modal transportation by integrating and seamlessly connecting with accessible park-and-ride facilities, rental cycle stations and other transportation hubs or stations.

g) **5 Credits in renovation.**
   i. The design of accessible bus stop shall be in accordance with **"Sahel Public Realm Rating System – TA.2.08 Accessible public transportation stops network"** (Figure 29,30).
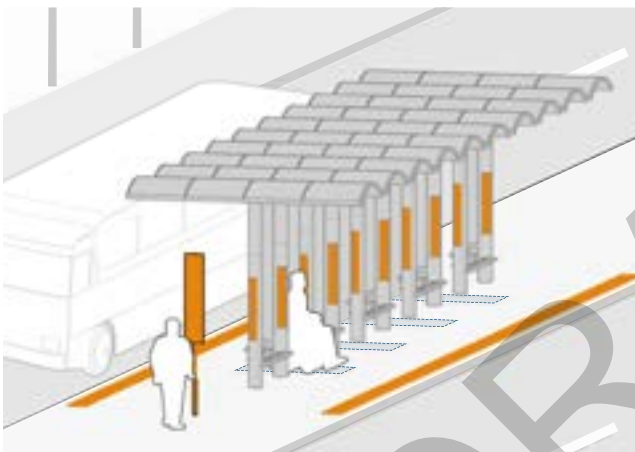
Figure 29: Bus stop at bus station

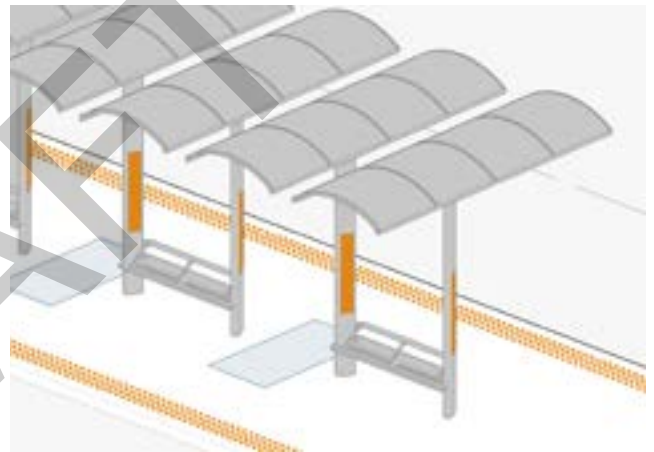**Figure 30:** Shaded waiting area at bus station

3.2.8.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **60**.

3.2.8.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **60**.

3.2.8.5 Pre-certificate rating submission:

a) A draft strategy for the proposed accessible and universally designed public transportation stop/shelter network within the assessed community. This should include the indicative locations of the accessible public transportation stops in conjunction with buildings and facilities of public-use or public realm, no later than concept stage in coordination with the Integrated Transportation Centre (ITC), the proposed occupancies within the assessed community, while considering the population density, land uses, and demands within the masterplan area.

b) Concept masterplans showing the proposed locations of the accessible public transportation stops, indicating how they form a network and their distances to major facilities of public use, including connections with other transportation hubs or stations, park-and-ride facilities, and rental cycle stations.

3.2.8.6 Certificate rating submission:

a) Updated narrative describing how the implemented strategy meets the requirements for providing an accessible and universally designed public transportation stop/shelter network. This should include the final locations of the bus stops, confirmed in conjunction with major buildings or public realm planned at adjacent plots to achieve seamless connectivity.

b) As-built situations and photographic evidence confirming the actual locations of the accessible and universally designed public transportation stops, indicating how they are connected with accessible routes, sidewalks, traffic islands, the transportation hub/station, park-and-ride facilities, and rental cycle stations, within the assessed community.

3.2.8.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Standards, 2013
c) TR-520 Technical Circular - Bus Stop Design Standards
d) TR-521 Guide Drawings on locating Bus stops on Urban Roads
e) TR-533 Bus Rapid Transit Planning Standards
f) TR-534 Bus Services Planning Standards
g) TR-535 Metro Planning Standards
h) TR-536 - Railway Planning Standards
i) TR-537 Tramways Planning Standards

3.2.9 TA.3.09 Accessible public transportation shelter design

2.2.9.1 Intent:

To optimize the design and accessibility of public transportation shelters, promoting sustainable urban mobility and providing alternatives to car travel to enhance the quality of life for all, while also creating inclusive spaces that accommodate diverse needs, ensuring equal access and enhancing the overall experience for all users.

3.2.9.2 Requirements:

Mandatory:

Demonstrate a strategy for accessible and universally designed public transportation shelter provision within the assessed community. These accessible public transportation shelters shall:

a) 50 Credits in renovation.

   i. Be provided as a minimum in all master-plan plots and water transit (water taxi stops and ferry stops) including the following zones:
- **a.** City or town-level streetscape
- **b.** Emirate, municipality, and district open spaces
- **c.** Central business district
- **d.** Corporate/Business district
- **e.** Residential areas

b) 20 Credits in renovation.

   i. Be connected to but located away from accessible paths of travel, to not impede them.

c) 30 Credits in renovation.

   i. Be designed and planned in accordance with **"Sahel Public Realm Rating System – TA.2.10 Accessible public transportation shelter design"** and all transport manuals mentioned in References section.

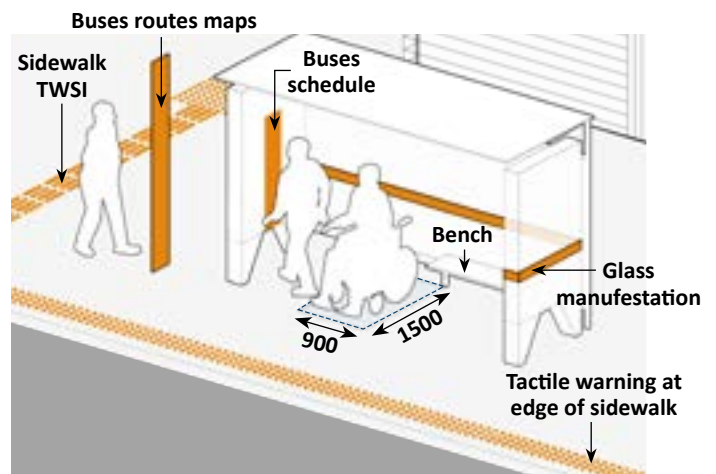**Figure 31:** Guiding and Warning TWSI, map and manifestation at shelter
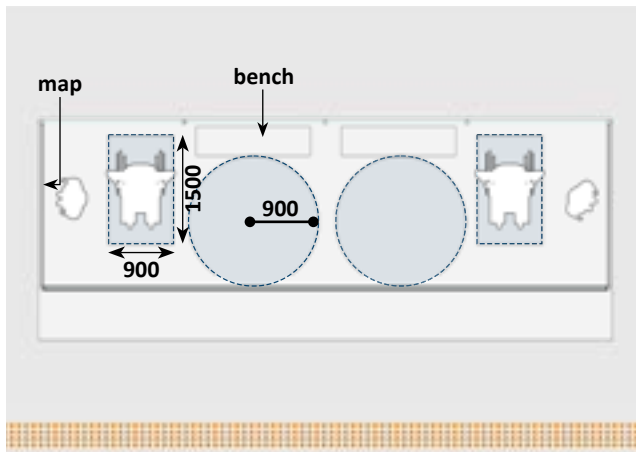

Figure 32: Street bus shelter

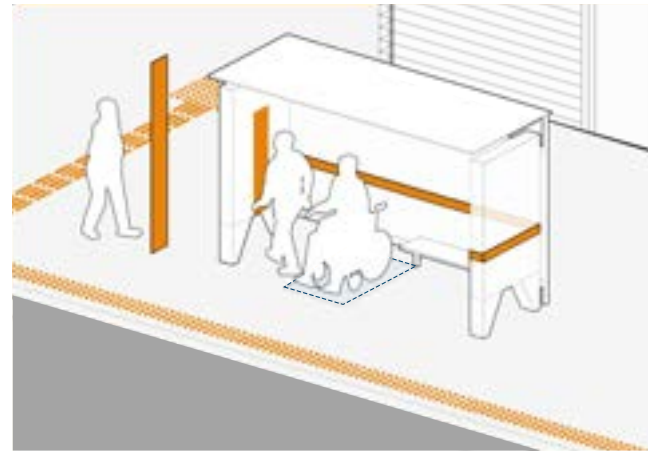**Figure 33:** Bus shelter climate-controlled plan view

Figure 34: Bus shelter climate-controlled

3.2.9.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.2.9.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.2.9.5 Pre-certificate rating submission:

a) A draft strategy outlining the provision of accessible and universally designed public transportation shelters within the assessed community. This should include the proposed zones where an accessible and universally designed public transportation shelter is a minimum requirement, and the proposed effective ventilation, shade, and thermal comfort within the transportation shelter.

b) Concept drawings reflecting the proposed locations of the accessible and universally designed public transportation shelters in the specified zones highlighting the accessible boarding/deboarding zone, estimated dimensions, the connections with the adjacent accessible routes, and other accessible facilities, and proximity with the major facilities in the specified zones within the masterplan area.

3.2.9.6 Certificate rating submission:

a) Updated narrative outlining how the implemented strategy meets the requirements for providing accessible and universally designed public transportation shelters. This should include the implemented zones where an accessible and universally designed public transportation shelter is a minimum requirement, and the implemented climate-control, shading and ventilation strategies for the transportation shelter.

b) As-built situation and photographic evidence confirming with the actual locations of the accessible and universally designed public transportation shelters in the specified zones highlighting the accessible boarding/deboarding zone, actual dimensions, the connections with the adjacent accessible routes, and other accessible facilities, and proximity with the major facilities in the specified zones within the masterplan area.

3.2.9.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Standards, 2013
c) TR-520 Technical Circular - Bus Stop Design Standards
d) TR-521 Guide Drawings on Locating Bus Stops on Urban Roads
e) TR-533 Bus Rapid Transit Planning Standards
f) TR-534 Bus Services Planning standards
g) TR-537 Tramways Planning Standards

3.3   IC.3 Interconnectivity and Circulation

This category assesses how well spaces like pedestrian paths and Sikkak (sidewalks) facilitate connectivity and movement for all users. It looks at factors like accessibility, navigability, and walkability of open public spaces and their connection within and between communities.

Table 21: Interconnectivity and Circulation

IC	Interconnectivity and Circulation	Requirement type	Credit Points Applicability	
			New community developments/ redevelopments	Existing community renovations
IC.3.01	Circulation based on accessible routes	Mandatory	R	150
IC.3.02	Accessible cycling infrastructure	Mandatory	R	120
IC.3.03	Enhanced accessible cycling infrastructure	Recommended	80	80
		Best Practice	40	40
IC.3.04	Rest points	Mandatory	R	80
IC.3.05	Enhanced rest points	Recommended	60	70
		Best Practice	50	60
IC.3.06	Traffic segregation and crossings	Mandatory	R	60
	Total		**230**	**660**

3.3.1 IC.3.01 Circulation based on accessible routes

3.3.1.1 Intent:

To promote public health, decrease dependence on cars, and foster active, independent lifestyles by providing accessible recreational routes, walkable neighborhoods, and generally an improved pedestrian environment, ensuring that all outdoor circulation corridors create a cohesive accessible network within the community and seamlessly connect with the surroundings.

3.3.1.2 Requirements:

Mandatory:

  a) **150 Credits in renovation.**
  i. Demonstrate a holistic network strategy for the development which shall:
      a. Ensure a network of continuous accessible routes coordinated with the occupancies within the development/renovation and with the adjacent developments (Figures 35, 36).
      b. Ensure all accessible services and facilities are interconnected by at least one continuous accessible route.
      c. Enable step-free access to all buildings and facilities of public use and residential facilities from the street level.
  ii. Demonstrate a holistic network strategy for the development of public open spaces which shall:
      a. Enhance mental well-being and health by incorporating pedestrian friendly gathering spaces such as plazas, public squares, courtyards, etc., into the communities, enhancing the inclusive opportunities for social interaction, recreation, and community engagement.
      b. Ensure at least one accessible pedestrian friendly gathering space is provided within certain distance in accordance with Public Realm Design Manual (PR-401) and Urban Street Design Manual (ROW-603). The distances shall be calculated using Direct Route Indices method.
        • Local (Pocket parks, Barahaat, squares, civic plazas, etc.) < 350 m (within 5 to 10-minute walk)
        • Neighborhood (playgrounds, parks, etc.) < 700 m (within 10 to 15-minute walk)
        • District (civic spaces, public gathering grounds, religious grounds, etc.) < 2 km
        • Municipality (Natural and semi-natural areas, heritage areas, religious grounds, etc.) < 5 km.
  iii. Additionally, the provision of passing spaces and outdoor accessible routes connecting other accessible facilities such as nature trails, picnic areas, garden beds, barbecue pits and their litter baskets and hot ash bin shall be in accordance with **"Sahel Public Realm Rating System - IC.2.01 Circulation based on accessible routes (outdoor)"**.
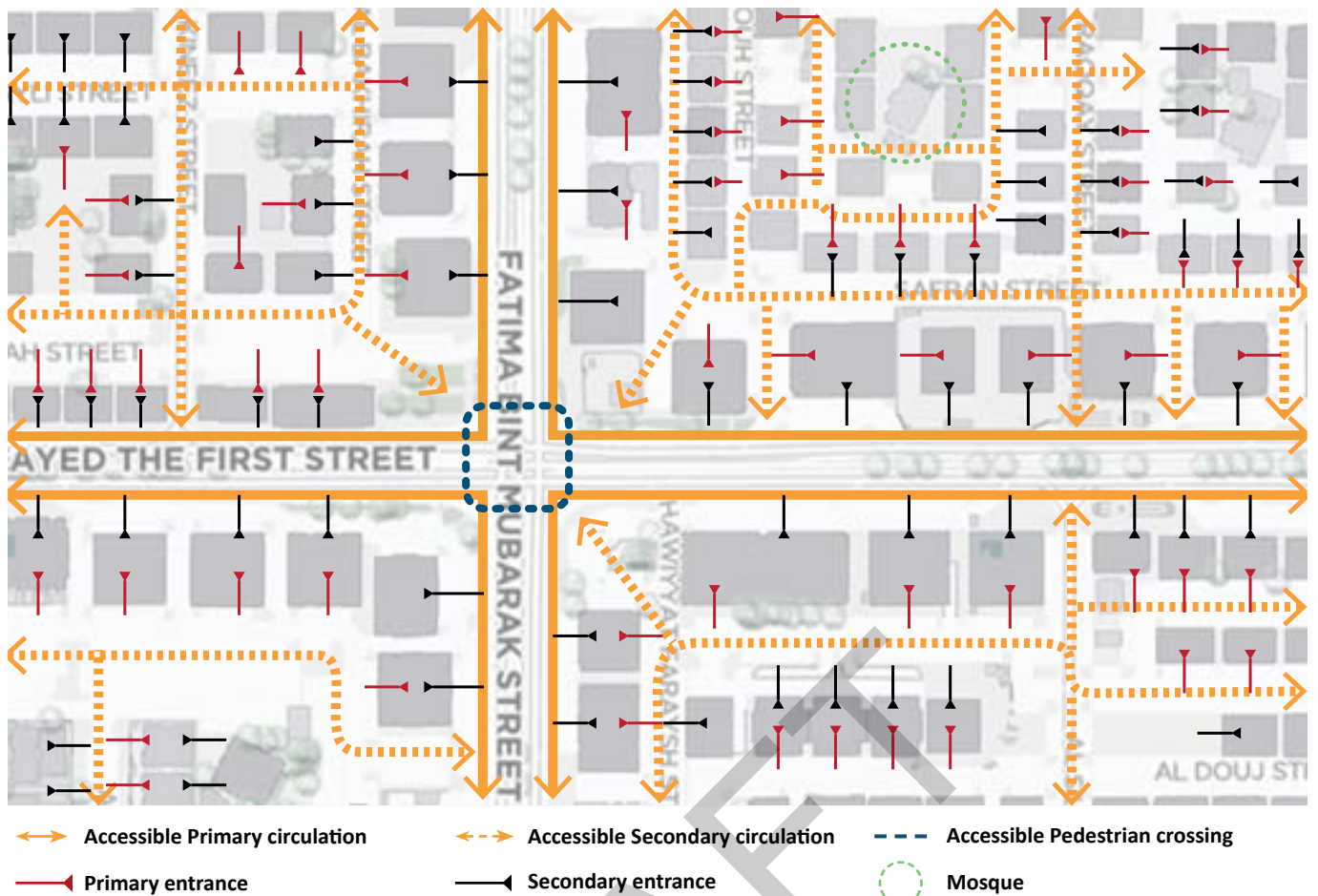
Figure 35: Pedestrian circulation route map

Legend:
- → Accessible Primary circulation
- ⇢ Accessible Secondary circulation
- – – Accessible Pedestrian crossing
- ⊢ Primary entrance
- ⊢ Secondary entrance
- ◌ Mosque

Legend:
- Boulevard
- Avenue
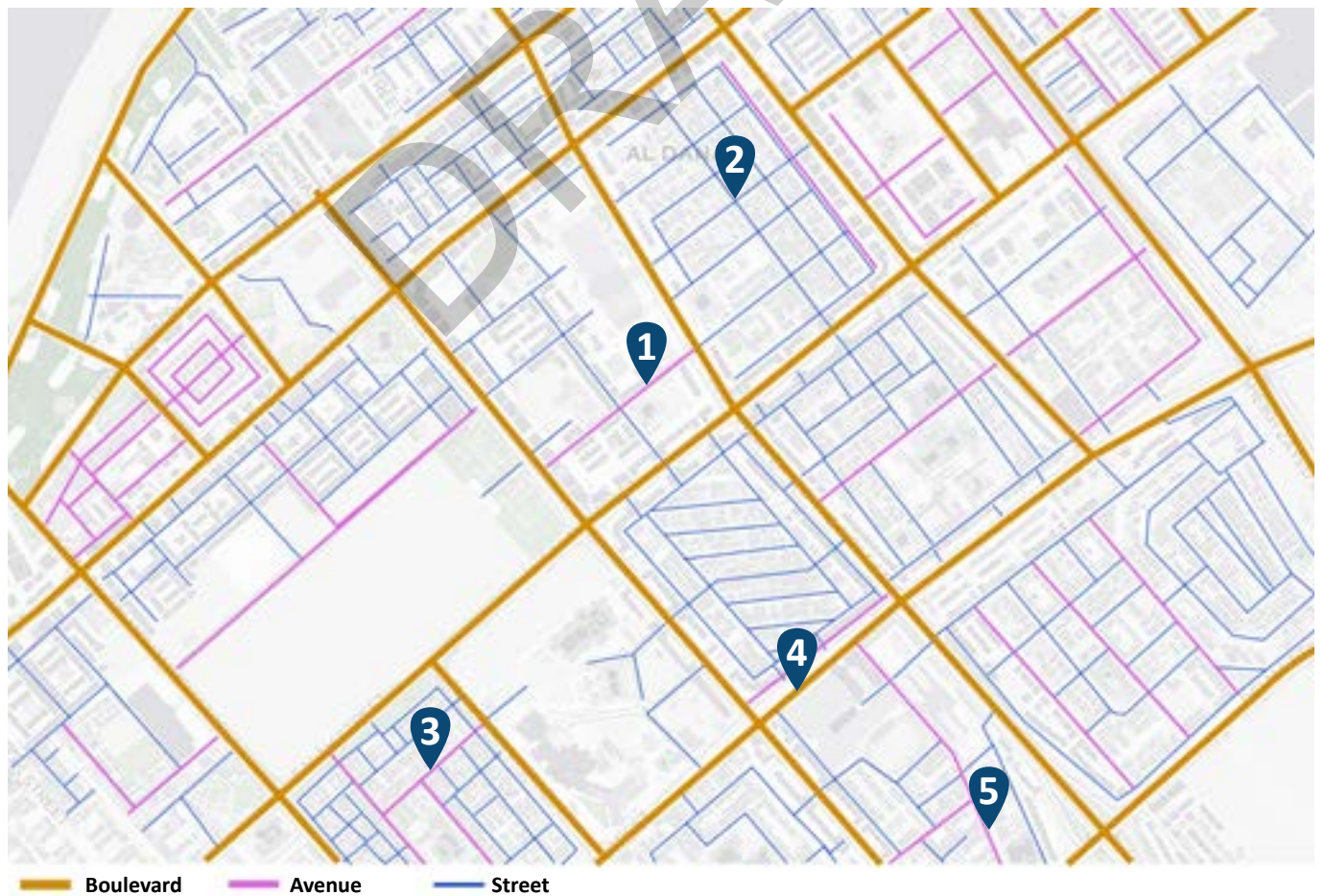- Street

Figure 36: General map of a city with circulation routes and connection points
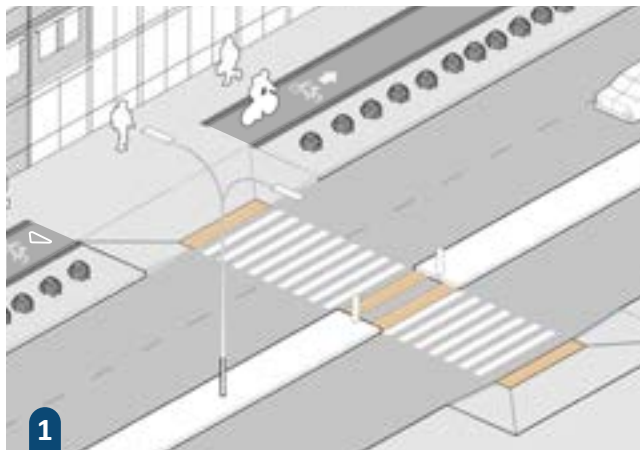
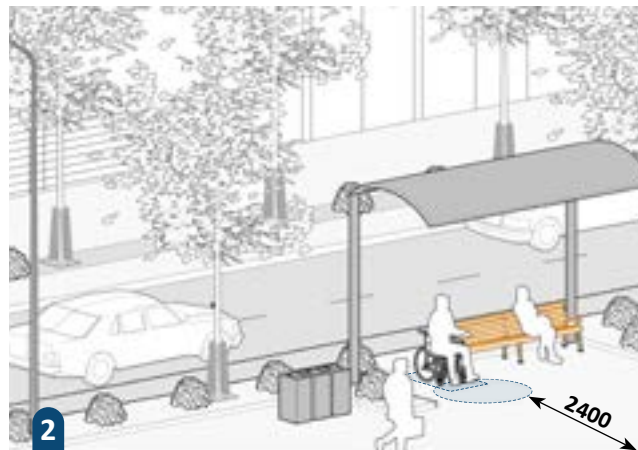**Figure 37:** Pedestrian crossing

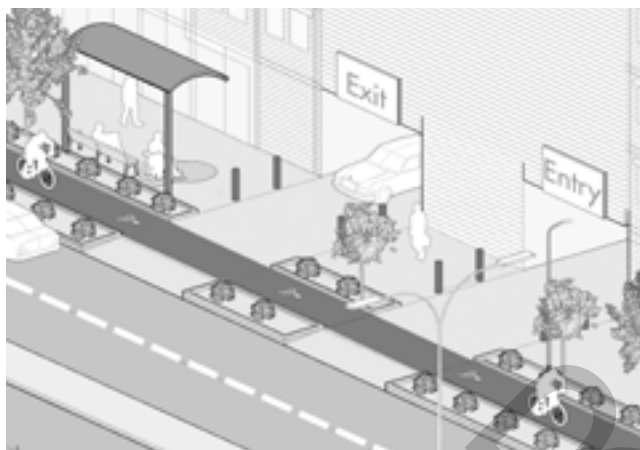**Figure 38:** Rest point at sidewalk

Figure 39: Sidewalk with garage entrance/exit

Figure 40: Pedestrian bridge and elevator

Figure 41: Sidewalk and cycle track with natural and structure shading

3.3.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **150**.

3.3.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **150**.

3.3.1.5 Pre-certificate rating submission:

a) Draft network strategy outlining location, provisional requirements and design of accessible routes and public open spaces, and how the adjacent developments shall be interconnected by continuous accessible routes including the evacuation network within the masterplan development/renovation.

b) Concept drawings showing the network of accessible routes within the development/ renovation and adjacent developments highlighting clear path, barrier-free access, passing spaces and accessible entrances.

c) Design documentation supporting compliance and key parameters for the design of accessible routes according to standards in updated codes/manuals.

3.3.1.6 Certificate rating submission:

a) Updated network strategy outlining the exact location, provisions and design of accessible routes and public open spaces and the interconnectivity with adjacent developments including evacuation network within the community development/renovation.

b) As-built drawings (or its relevant parts) reflecting the implemented network of accessible routes within the development/renovation and adjacent developments highlighting clear path, barrier-free access, passing spaces and accessible entrances.

c) Excerpts and photographs from the masterplan confirming the compliance and key parameters for the design of accessible routes according to standards in updated codes/manuals.

3.3.1.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) TR-530 - Walking and Cycling Master Plan-Network Design
f) TR-511_Manual on Uniform Traffic Control Devices
g) TR-518 Roadside Design Guide

3.3.2 IC.3.02 Accessible cycling infrastructure

3.3.2.1 Intent

To ensure that cycle paths form a continuous, safe, inclusive, and connected network that allows cyclists and micro-mobility users to travel seamlessly within and between communities.

3.3.2.2 Requirements:

Mandatory:

a) **120 Credits in renovation.**
   i. Demonstrate a holistic accessible cycling network strategy for the masterplan area which shall:
      a. Be formed by cycle paths that form a connected, safe, and accessible network (Figure 42, 43, 44) that allows cyclists and micro-mobility users to travel between:
         - Emirate, municipality, and district-level public open spaces and waterfronts.
         - City or town level streetscape.
         - Residential areas.
         - Cultural heritage facilities.
         - Major transportation hubs.
         - Central Business districts.
         - Corporate business district.
         - Non-vehicular zones (or pedestrian zones).
   ii. Be independent from pedestrians and by a minimum separation of 1500 mm from the car lanes.
   iii. Ensure all cycle paths are connected to accessible cycle parking areas and park-and-ride cycle facilities.
   iv. Integrate cycle paths along the public transportation routes to support multi-modal transportation options.
   v. Ensure that cycling paths are shaded with provision in accordance with **"Sahel Community Rating System – EQC.3.01. Thermal comfort"**.
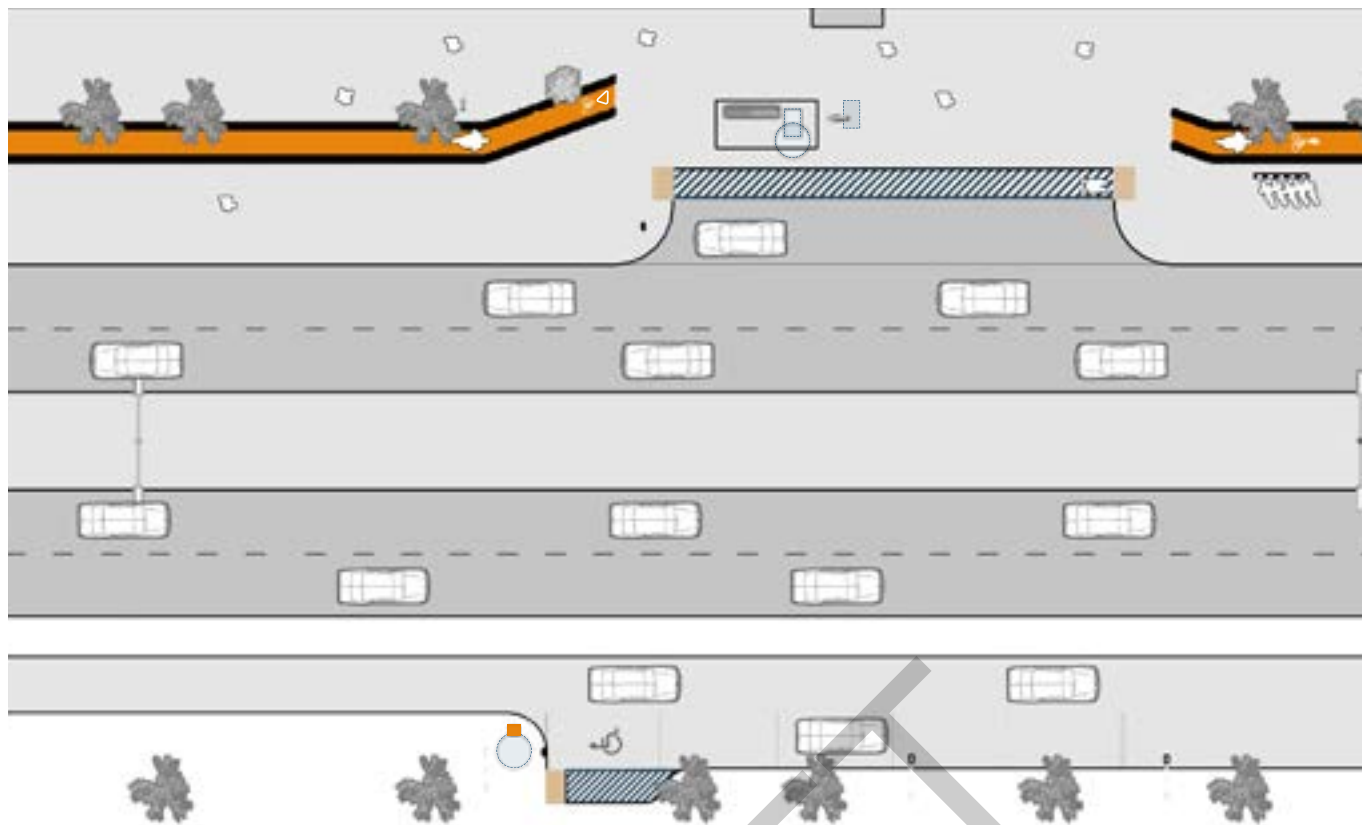
Figure 42: Cycle track on sidewalk with TWSI
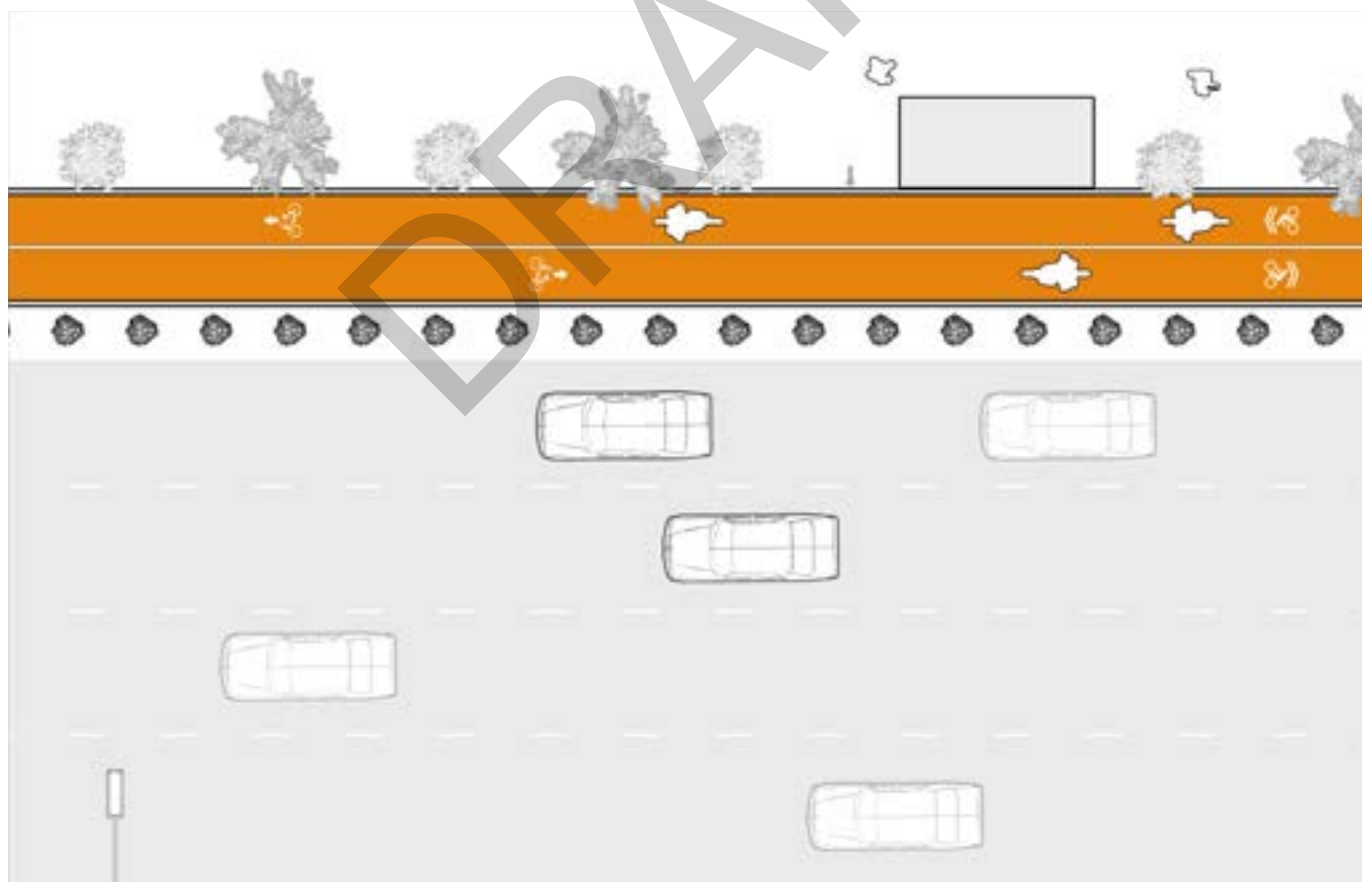
Figure 43: Two-way cycle track on sidewalk
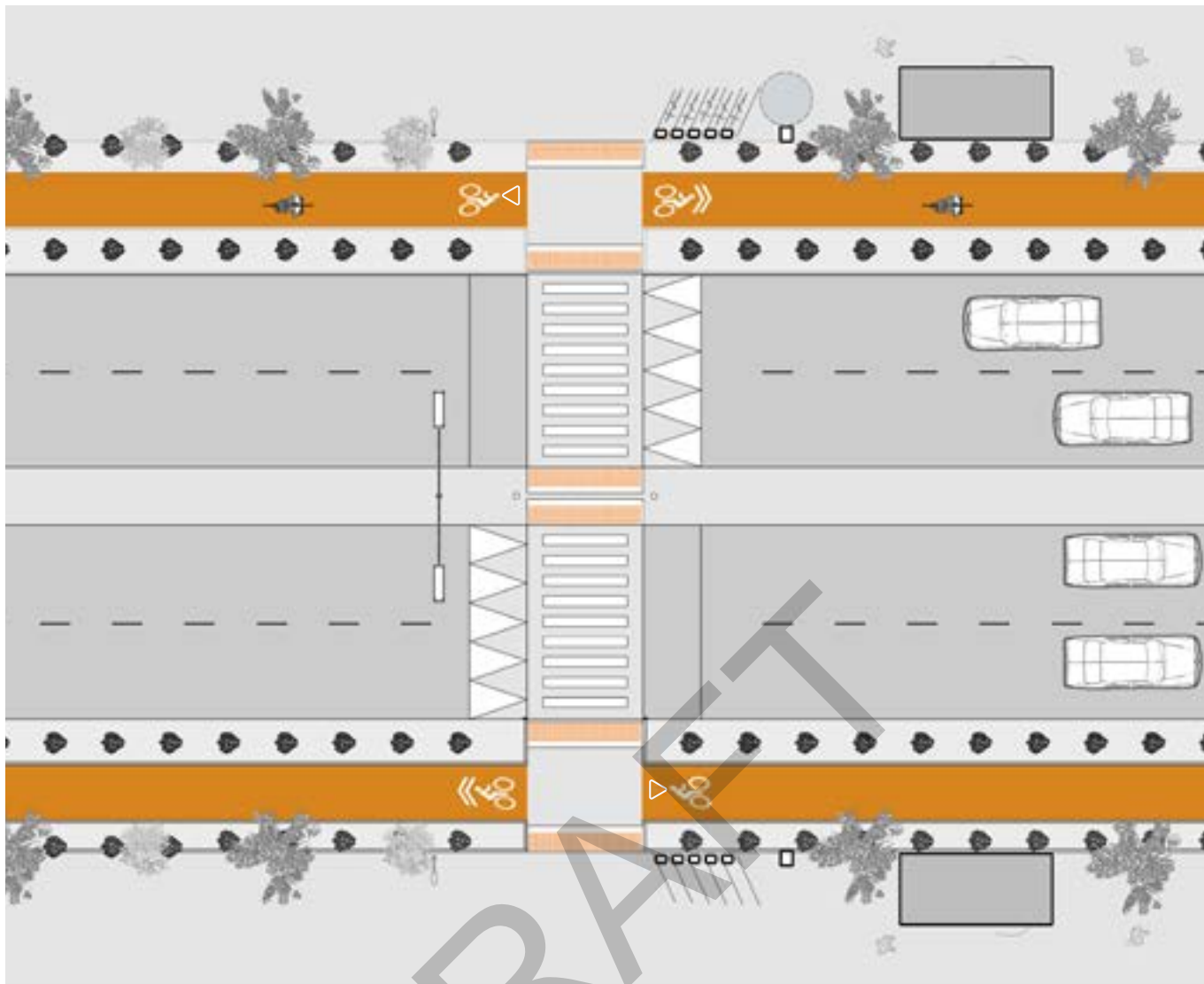
Figure 44: One-way cycle track on each side of sidewalk

3.3.2.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.3.2.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.3.2.5 Pre-certificate rating submission:

a) A draft strategy outlining the provision, location, and key parameters of the design of safe, connected, and accessible network of cycle tracks that facilitate travel between various destinations, including integration with other public transportation modes to ensure enhanced sustainable and inclusive transportation network within the masterplan development/ renovation.

b) Concept drawings demonstrating the continuity and uninterrupted connections of the cycling track within the masterplan area, including their size, connection to cycle parking areas, separation methods from vehicular lanes, and shaded structures.

3.3.2.6 Certificate rating submission:

a) A comprehensive and updated strategy detailing the provision, location, and essential parameters of design of continuous and accessible network of cycle tracks that enhances travel between various destinations and seamless integration with other public transportation modes, confirming a sustainable and inclusive transportation network throughout the community.

b) As-built situations and photographic evidence confirming the continuous and uninterrupted cycling paths within the community and with adjacent developments, including their size, connection to cycle parking areas, separation methods from vehicular lane, and shaded structures.

2.3.2.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) TR-530 - Walking and Cycling Master Plan-Network Design
f) TR-511_Manual on Uniform Traffic Control Devices
g) TR-518 Roadside Design Guide

3.3.3 IC.3.03 Enhanced accessible cycling infrastructure

3.3.3.1 Intent:

To ensure that cycle tracks form a continuous, safe, inclusive and connected network that allows all types of cycles and micro-mobility users to travel seamlessly within and between communities.

3.3.3.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a holistic accessible cycling network strategy for the masterplan area which should:

  a) At intersections, prioritize the safety and convenience of cyclists, by including cyclist visibility, right of way and protected intersections from other motorized vehicles.
  b) Additionally, all recommended requirements for accessible cycling infrastructure within the certification boundary should be in accordance with **"Sahel Public Realm Rating System - IC.2.06 Enhanced accessible cycling infrastructure"**.

Best Practice:

Demonstrate a holistic accessible cycling network strategy for the masterplan area which should:

  a) Intersections should prioritize the safety and convenience of cyclists, by including enhanced safety techniques such as bike-specific signalization and dedicated cycle crossings.

3.3.3.3 Pre-certificate rating credits:

Table 22: IC.3.03 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
80	80	Consider that policies prioritize the safety and convenience of cyclists at intersections such as cyclist visibility, right of way and protected intersections
		Consider that cycling routes accommodate various types of cycles within the entire development and provision of cycling track leading to the nature trail
		Best Practice:
40	40	Design safety techniques for cyclists at intersections

3.3.3.4 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
80	80	Confirm that policies prioritize the safety and convenience of cyclists at intersections such as cyclist visibility, right of way and protected intersections
		Confirm that cycling routes accommodate various types of cycles within the entire development and provision of cycling track leading to the nature trail
		Best Practice:
40	40	Confirm that the safety techniques are implemented at intersections for cyclists.

3.3.3.5 Pre-certificate rating submission:

Recommended:

a) A draft strategy outlining the provision, location, and key parameters of the design of safe, connected, and accessible network of cycle tracks that facilitate travel between various destinations and prioritizes the safety and convenience of cyclists, including integration with other public transportation modes, and inclusion of access to various types of cycles such as e-bikes, tricycles, handcycles, etc., to ensure enhanced sustainable and inclusive transportation network within the masterplan development/renovation.

b) Drawings illustrating compliance with the specified minimum widths and lighting.

Best Practice:

a) A draft strategy outlining the safety protocols implemented at intersections for cyclists.

3.3.3.6 Certificate rating submission:

Recommended:

a) A comprehensive and updated strategy detailing the provision, location, and essential parameters of design of continuous and accessible network of cycle tracks that enhances the travel between various destinations and prioritizes the safety and convenience of cyclists, including integration with other public transportation modes, and inclusion of various types of cycles confirming to a sustainable and inclusive transportation network throughout the community.

b) Updated narrative describing any changes made during construction and confirming the adherence to design specifications.

c) As-built drawings illustrating compliance with the specified minimum widths based on the speed limit of the adjacent car lane.

d) Photographs of the completed cycle tracks/lanes highlighting key design features and lighting.

Best Practice:

a) A comprehensive and updated strategy report detailing the safety protocols implemented at intersections for cyclists.

3.3.4 IC.3.04 Rest points

3.3.4.1 Intent:

To enable all users to enjoy views, relax and take a rest, which would create a more enjoyable, inviting, and inclusive neighborhoods experience, with the support of an efficient accessible pedestrian circulation network.

3.3.4.2 Requirements:

Mandatory:

    a) **80 Credits in renovation.**
        i. Demonstrate a strategy for the provision of rest points and their spatial disposition which shall:
            a. Be provided in facilities of public use such as:
- Public open spaces such as parks, playgrounds, plazas, etc.
- Different streetscapes such as boulevard, avenue, street, access lanes
- Recreational open spaces such as trails, boardwalks and viewing points.
- Beaches and waterfronts
- Passenger loading/unloading zones and where waiting might be required such as taxi stands and valet parking.
- Public transportation stops

            b. Be in locations that consider quality viewing points, be positioned away from the vehicular paths and cycle tracks in less noisy or polluted areas and be naturally ventilated.
            c. Be located so that drinking water fountains, waste dispensers and accessible toilets are provided within 350 m in public open spaces (or within 5 to 10-minute walking distance). Distances are calculated via the Direct Route Indices method.
            d. Be located close to the following areas or services: assistance animal relief area, quiet spaces, and accessible toilet/inclusive family toilet facilities.
        ii. Defined requirements for the quality, design, and components of the rest points, to ensure a coherent, intuitive standard across the whole development. The strategy shall require the rest points at minimum to:
            a. At least 5% of the seating areas, but not less than one located in parks and playgrounds shall be accessible and provided with an interaction area of 900 mm by 1500 mm for mobility aid users, walking aids, prams, and assistance animals.
            b. Additionally, all applicable locational and provisional requirements for rest points within the certification boundary shall be in accordance with **"Sahel Public Realm Rating System - IC.2.07 Rest points"**.
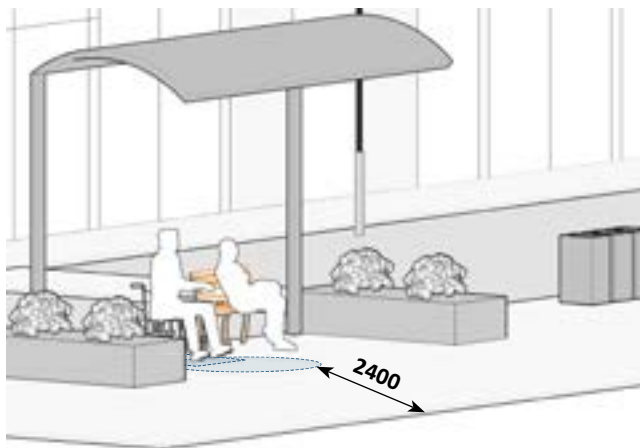
Figure 45: Outdoor rest points at residential area
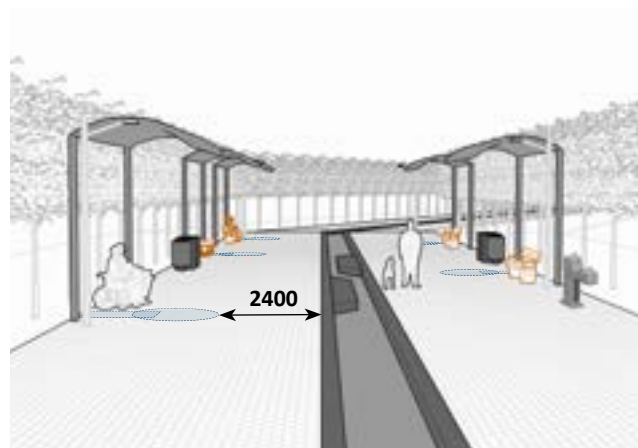
Figure 46: Outdoor rest point at park
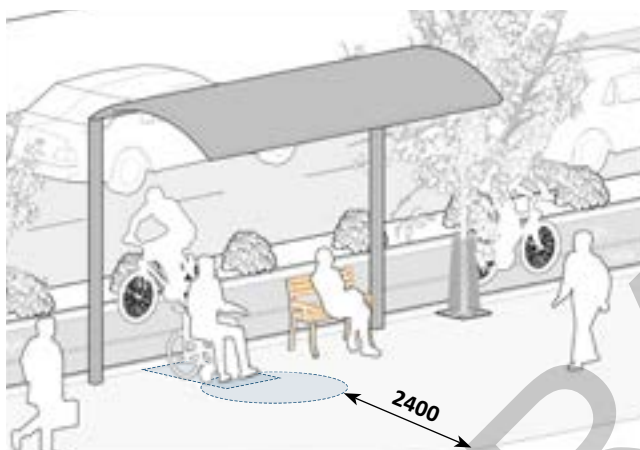
Figure 47: Outdoor rest points at sidewalk

3.3.4.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.3.4.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.3.4.5 Pre-certificate rating submission:

a) Draft strategy outlining the provision of rest points and their spatial disposition including the location, number of rest points, proximity with other public facilities and their design in the planned development/renovation at streetscapes and public open spaces.

b) Concept drawings demonstrating the proposed location, area, components of the proposed rest points, and the distances between them.

3.3.4.6 Certificate rating submission:

a) A comprehensive and updated strategy outlining the actual provision of rest points and their spatial disposition, including the location, number of rest points, proximity to other accessible facilities, interaction areas, their design and also ensuring rest points are set back from the main route with a clear turning circle with a minimum diameter of 1800 mm.

b) As-built situations and photographic evidence confirming the exact location, area, components of the rest points, distances between them and the overall effective distribution of the rest points within the pedestrian network and key locations.

3.3.4.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) Abu Dhabi Outdoor Seating Areas Manual.

3.3.5 IC.3.05 Enhanced rest points

3.3.5.1 Intent:

To enable all users to enjoy views, relax and take a rest through enhanced facilities, which would create a more enjoyable, inviting and inclusive neighborhoods experience, with the support of an efficient accessible pedestrian circulation network.

3.3.5.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a strategy for the provision of rest points and their spatial disposition which should:

a) Have formal and informal seating numbers be increased and dispersed, near the activities where food kiosks, or opportunities for entertainment or social activities are provided.

b) Feature seating for two people in 80% of rest points and feature seating for at least three people in at least 20% of rest points.
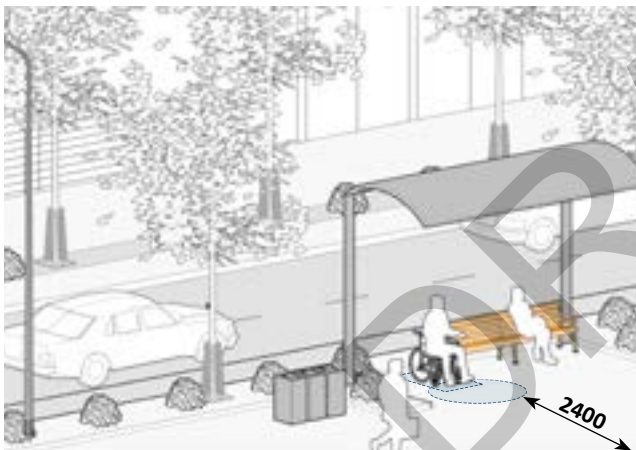
Figure 48: Enhanced rest points with artificial shading
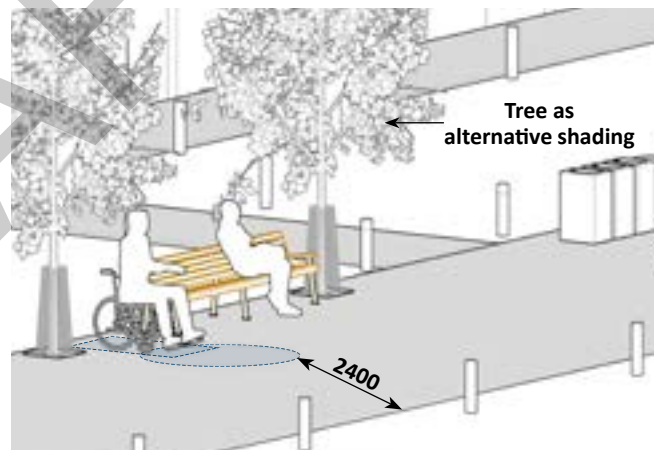
Figure 49: Enhanced rest point with natural shading

Best Practice:

Demonstrate a strategy for the provision of rest points and their spatial disposition which should:

a) Be placed no more than 20 m before and after the challenging elements to offer rest from gradients/steps/long distances. Distances are calculated via the Direct Route Indices method.

b) Include 5% of the accessible rest points that are sheltered to provide privacy for women and children, and for people who may require a quieter space.

c) In public open spaces, feature seating for children and bariatric on ischiatic support, in 50% of rest points at a minimum.

3.3.5.3 Pre-certificate rating credits:

Table 24: IC.3.05 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
60	70	Demonstrated a strategy outlining the rules for placing rest points according to the recommended requirements and enhanced rest points requirements in public real
		Design rest points highlighting the minimum percentage of variety of seating options (two people in 80%; at least three people in at least 20%)
		Best Practice:
50	60	Demonstrated a strategy outlining the rules for placing rest points near challenging elements.
		Design rest points highlighting the minimum percentage of variety of seating options (lowered seats for children, bariatric seating, ischiatic support) and sheltered rest points for privacy.

3.3.5.4 Certificate rating credits:

Table 25: IC.3.05 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
60	70	Verified that the constructed project adheres to the placement rules for rest points according to the recommended requirements and enhanced rest points requirements in public realm.
		Confirm that the placement of rest points highlighting the minimum percentage of variety of seating options (two people in 80%; at least three people in at least 20%) is implemented.
		Best Practice:
50	60	Verified that the constructed project adheres to the placement rules for rest points according to the best practice requirements. Confirm that the rest points implemented the minimum percentage of variety of seating options (lowered seats for children, bariatric seating, ischiatic support), placement before and after challenging elements, and sheltered rest points for quieter spaces.

3.3.5.5 Pre-certificate rating submission:

Recommended and Best Practice:

a) Draft strategy outlining the provision of rest points and their spatial disposition including the location, number of rest points, proximity with other public facilities and their design in the planned development/renovation at streetscapes and public open spaces.

b) Concept drawings demonstrating the proposed location, area, components of the proposed rest points, and the distances between them.

c) Draft strategy outlining the proposed variety in seating options and their provisions within a facility of public use.

3.3.5.6 Certificate rating submission:

Recommended and Best Practice:

a) A comprehensive and updated strategy outlining the actual provision of rest points and their spatial disposition, including the location, number of rest points, proximity to other accessible facilities, interaction areas, their design and also ensuring rest points are set back from the main route with clear turning circle with a minimum diameter of 1800 mm.

b) As-built situations and photographic evidence confirming the exact location, area, components of the rest points, distances between them and the overall effective distribution of the rest points within the pedestrian network and key locations.

c) Updated strategy outlining the implemented types and variety in seating options and their provisions within a facility of public use.

3.3.6 IC.3.06 Traffic segregation and crossings

3.3.6.1 Intent:

To ensure protection and convenience for pedestrians, focusing on reducing pedestrian-vehicular conflicts and on designing safe paths that integrate pedestrian and cycle traffic within the community.

3.3.6.2 Requirements:

Mandatory:

a) **60 Credits in renovation.**
   i. Demonstrate a strategy for safe separation at street crossings, accessible pedestrian path network with the cycle network and public transportation network (Figures from 50 to 54). This safety can be achieved using safety measures such as:
      a. Plants and landscaping
      b. Floor surface separator that differs tactilely
      c. Bollards
      d. Raised accessible pedestrian paths with curb extensions.
      e. Raised medians.
      f. 10 kilometer/hour zones (when there is no segregation between cycle tracks and pedestrian paths)
   ii. Pedestrian crossings shall be placed at high demand locations and near key destinations buildings or facilities of public use including transportation hubs and stops. The maximum spacing intervals between crossings shall be 120 m for a city, town, and commercial districts while 150 m and 200 m for residential and industrial districts, to ensure reduced walkability to reach crossings.
   iii. The design of approaches to crossings shall consider mutual visibility between pedestrians, cyclists and drivers to ensure safety.
   iv. In locations where the width of the roads is too wide or when the estimated speed of the motorized vehicles on road are high such as in highways or expressways, safe accessible and universally designed crossings shall be enabled by pedestrian overhead bridges or underpasses.
   v. In cases where a pedestrian path is intersected by a vehicle entry/exit to a residential dwelling or a building with similarly low vehicle traffic, the design of the pedestrian path shall seamlessly continue across the vehicle crossover to emphasize pedestrian priority.
   vi. Be located on or near desired lines for movement so that they are safe, direct, convenient, and easy to use for pedestrians and cyclists.
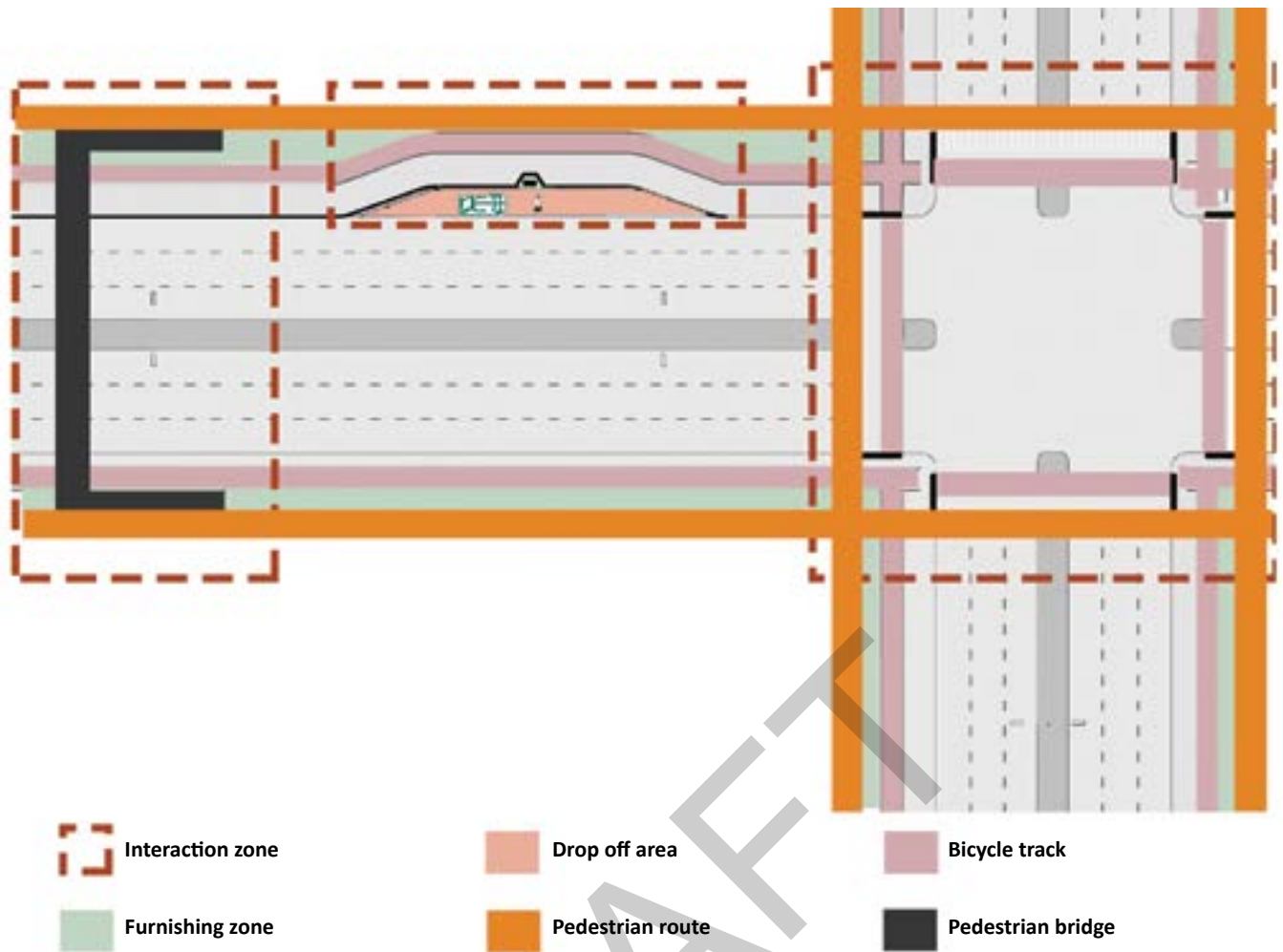
Figure 50: Interaction zones and crossings

Legend:
- Interaction zone
- Furnishing zone
- Drop off area
- Pedestrian route
- Bicycle track
- Pedestrian bridge

Legend:
- Boulevard
- Avenue
- Street

Figure 51: General map of a city indicating different segregation options
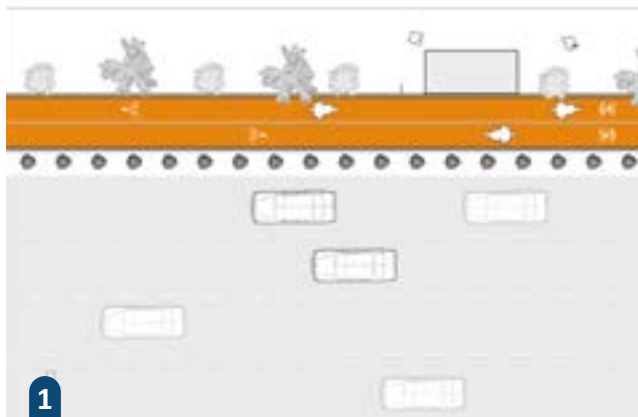
Figure 52: Boulevard with two-way cycle track
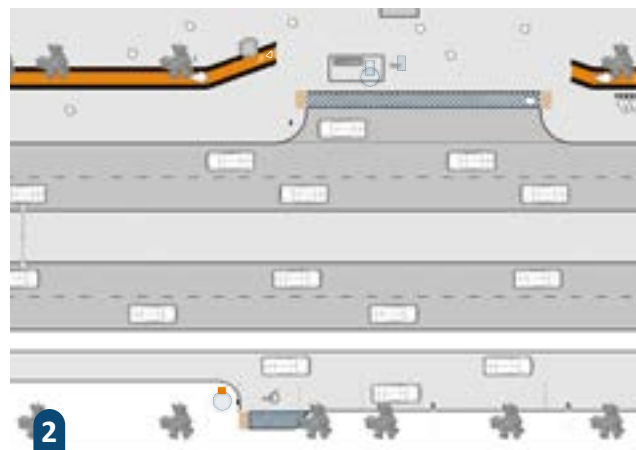
Figure 53: Avenue with one way cycle track on top
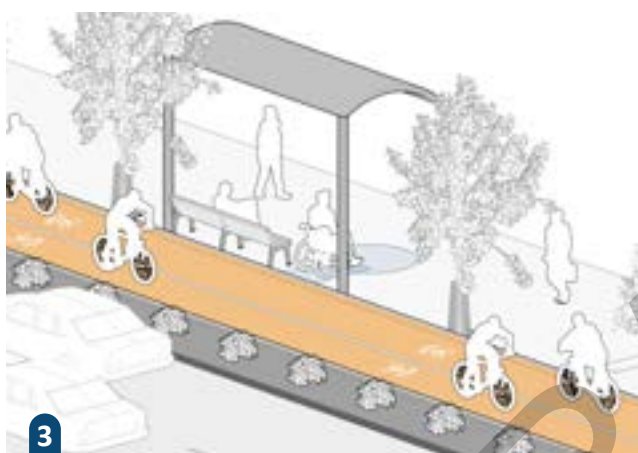
Figure 54: Segregation between cycle tracks, cars, and pedestrians

3.3.6.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **60**.

2.3.6.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **60**.

3.3.6.5 Pre-certificate rating submission:

a) A draft strategy outlining the approach for safe separation at street crossings, pedestrian path networks, and cycle networks (if applicable), street networks, and public transportation networks.

b) Draft narrative and drawings highlighting safety measures, including mutual visibility between pedestrians, cyclists and drivers, and consideration of pedestrian walking speed.

c) Concept drawings illustrating proposed separation strategies, highlighting key parameters such as the prioritization of pedestrian flow through continuous pedestrian paths, adequate width for crossings and refuge islands, and emphasizing safety and accessibility in all hierarchies of streetscapes.

3.3.6.6 Certificate rating submission:

a) Comprehensive updated strategy and photographic evidence proving the safe separation at street crossings, independent pedestrian, and cycle networks (if applicable), street networks, and public transportation networks.

b) Updated narrative and drawings showcasing the provision of safety measures, including mutual visibility between pedestrians, cyclists and drivers, and consideration of pedestrian walking speed.

c) As-built situation and drawings confirming the implementation of separation strategies, demonstrating the prioritization of pedestrians through continuous pedestrian paths, sufficient width for crossings and refuge islands, and safety and accessibility in all hierarchies of streetscapes within the assessed community.

3.3.6.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) TR-530 - Walking and Cycling Master Plan-Network Design
f) TR-511_Manual on Uniform Traffic Control Devices
g) TR-518 Roadside Design Guide

3.4   EFE.3 Ergonomic Furniture and Equipment

This category evaluates the provision of Ergonomic Furniture and Equipment for all users in public facilities. It includes aspects such as the functionality, adaptability, comfort, and support of furniture and equipment, as well as their coverage within the community.

Table 26: Ergonomic Furniture and Equipment

EFE	Ergonomic Furniture and Equipment	Requirement type	Credit points applicability	
			New community developments/ redevelopments	Existing Community renovations
EFE.3.01	Street furniture	Mandatory	R	200
EFE.3.02	Enhanced street furniture	Recommended	20	20
		Best Practices	30	30
EFE.3.03	Drinking fountains	Mandatory	R	80
EFE.3.04	Enhanced drinking fountains	Recommended	40	40
	Total		**90**	**370**

3.4.1 EFE.3.01 Street furniture

3.4.1.1 Intent:

To develop a strategy for street furniture (e.g., litter baskets, picnic tables, outdoor seating, barriers, and bollards) that plays a crucial role in shaping urban environments through its functionality and inclusivity for all users, while seamlessly connecting to accessible neighborhoods.

3.4.1.2 Requirements:

Mandatory:

Demonstrate a strategy for the design and location of street furniture elements, which shall include clearly defined requirements for the quality, design, and components of street furniture (Figures 55, 56) to ensure a coherent and intuitive standard across the assessed community.

a) **150 credits in renovation.**
   i. The street furniture shall be strategically located and provided in accordance with **"Sahel Public Realm Rating System – EFE.2.02 Street furniture"**.
   ii. The seating areas shall be located in accordance with **"Sahel Public Realm Rating System – EFE.2.04 Seating Areas"**, wherever applicable.
   iii. Have barbecue pits and litter baskets located in accordance with **"Sahel Public Realm Rating System – EFE.2.02 Street furniture"** and shall:
      a. Ensure that litter baskets are provided close to accessible public facilities and on accessible routes.
      b. Maintain consistency in the layout and location of litter baskets to improve orientation, especially when using multiple litter baskets or recycling stations.

b) **50 credits in renovation.**
   i. Additionally, all picnic tables (Figure 55) within the assessed community shall be located in public-use facilities, such as:
      a. Public open spaces, including parks, playgrounds, plazas, etc.
      b. Recreational open spaces, including trails, boardwalks, and viewing points.
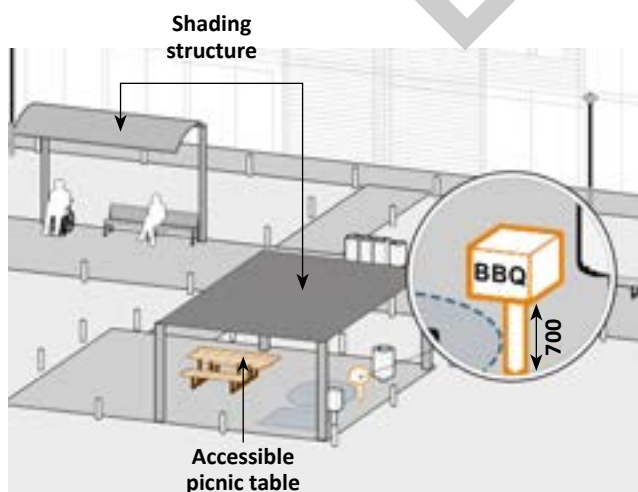
Figure 55: Furniture at a picnic area
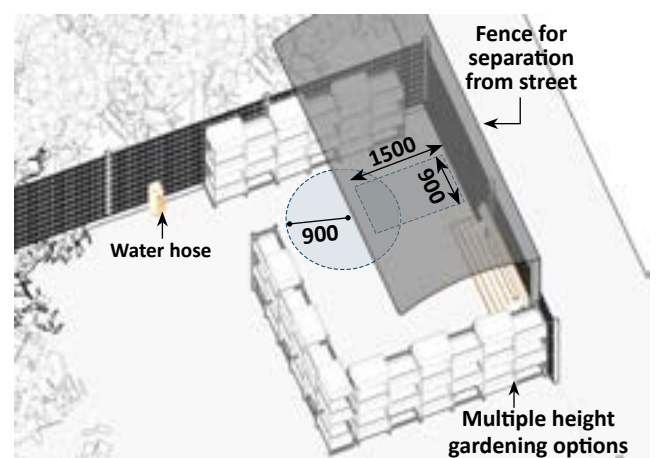
Figure 56: Furniture at gardening area

3.4.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **200**.

3.4.1.4 Certificate rating credits:

This is a requirement for new assets. There is no credit points awarded.

Credit points awarded for renovation projects: **200**.

3.4.1.5 Pre-certificate rating submission:

a) Draft strategy for the provision, placement, and design of street furniture elements such as the litter baskets, picnic tables and outdoor seating furniture near cafes, relative to different open spaces, streetscapes, and other facilities of public use within the masterplan area.

b) Concept drawings demonstrating the proposed locations and designs of the street furniture, and connection with adjacent accessible path, ensuring a coherent and intuitive standard across the entire masterplan area.

3.4.1.6 Certificate rating submission:

a) Updated strategy highlighting the implemented provision, placement, and design of street furniture elements such as the litter baskets, picnic tables and outdoor seating furniture near cafes, relative to different open spaces, streetscapes, and other facilities of public use within the assessed community.

b) As-built drawings demonstrating the exact locations and designs of the street furniture, and connection with adjacent accessible path, for a coherent and intuitive standard across the entire masterplan area.

c) Photographs displaying the installed street furniture, highlighting their quality, design, and components, as well as their accessible and universal design features and integration within the community and connection with the accessible path.

3.4.1.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) Abu Dhabi Outdoor Seating Areas Manual
f) Abu Dhabi Waste Bin Planning and Regulations Manual

3.4.2 EFE.3.02 Enhanced street furniture

3.4.2.1 Intent:

To develop a strategy for street furniture (e.g., litter baskets, picnic tables, outdoor seating tables, barriers, and bollards) that would play a crucial role in shaping the urban environments through its enhanced functionality and inclusivity for all users, and seamlessly connect with the accessible neighborhoods.

3.4.2.2 Requirements:

All designs, drawings and specifications of the development or renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

a) Demonstrate a strategy for the design and location of street furniture elements which should include:

i. All enhanced requirements (recommended) for picnic tables and barbecue pits provided within the community should be in accordance with **"Sahel Public Realm Rating System – EFE.2.03 Enhanced Street furniture"** and should:

a. Be commonly found in facilities of public use such as:

• Beaches and waterfronts.

Best Practice:

a) All enhanced requirements (best practices) for picnic tables, barbecue pits and garden beds provided within the community should be in accordance with **"Sahel Public Realm Rating System – EFE.2.03 Enhanced Street furniture"**.

3.4.2.3 Pre-certificate rating credits:

Table 27: EFE.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	20	Design picnic tables with 10%, or at least 1 accessible table and barbecue pits located within 100 m from the family toilet and provided with a wheelchair or personal device charging station and an accessible drinking water fountain.
		Best Practice:
30	30	Design barbecue pits in the assessed community within 30m from the accessible parking spaces, garden beds located within 100m from accessible toilet and provided with accessible drinking water fountains and picnic areas within 100m from the family toilet and 30m from the accessible parking space.

3.4.2.4 Certificate rating credits:

Table 28: EFE.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	20	Confirm provision of picnic tables with 10%, or at least 1 accessible table and barbecue pits located within 100 m from the family toilet and provided with a wheelchair or personal device charging station and an accessible drinking water fountain.
		Best Practice:
30	30	Confirm provision of barbecue pits in the assessed community within 30 m of the accessible parking spaces, garden beds located within 100 m from the accessible toilet, and provided with accessible drinking water fountains and picnic areas within 100 m from the family toilet and 30 m from the accessible parking space.

3.4.2.5 Pre-certificate rating submission:

a) Draft strategy highlighting enhanced provision/numbers, placement, and design of street furniture elements such as the litter baskets, picnic tables and outdoor seating furniture near cafes, relative to different open spaces, streetscapes, and other facilities of public use within the masterplan area.

b) Concept drawings demonstrating the proposed locations and designs of the street furniture, and connection with adjacent accessible path, ensuring a coherent and intuitive standard across the entire masterplan area.

3.4.2.6 Certificate rating submission:

a) Updated strategy highlighting the implemented provision/numbers, placement, and design of street furniture elements such as the litter baskets, picnic tables and outdoor seating furniture near cafes, relative to different open spaces, streetscapes, and other facilities of public use within the assessed community.

b) As-built drawings demonstrating the exact locations and designs of the street furniture, and connection with adjacent accessible path, for a coherent and intuitive standard across the entire masterplan area.

c) Photographs displaying the installed street furniture, highlighting their quality, design, and components, as well as their accessible and universal design features and integration within the community and connection with the accessible path.

3.4.3 EFE.3.03 Drinking fountains

3.4.3.1 Intent:

To ensure consistent access to drinking water and seamless connection between other pedestrian amenities for all users within the assessed community.

3.4.3.2 Requirements:

Mandatory:

Demonstrate a strategy for the placement and standard of publicly available drinking fountains for the masterplan area in accordance with **"Sahel Public Realm Rating System – EFE.2.06 Drinking fountains"** and shall (Figure 57):

a) **40 Credits in renovation.**
  i. At least 50 % of drinking fountains within the public realm shall be designed to be accessible and shall be provided in facilities of public use at community level such as:
    a. Public open spaces such as parks, playgrounds, plazas, etc.
    b. Recreational open spaces such as trails, boardwalks and viewing points.
    c. Beaches and waterfronts.

b) **40 Credits in renovation.**
  i. Drinking water fountains shall be provided within 350 m distance (or within 5 to 10-minute walking distance) of the resting areas. Distances are calculated via the Direct Route Indices method.
  ii. Shall be located on an accessible route.
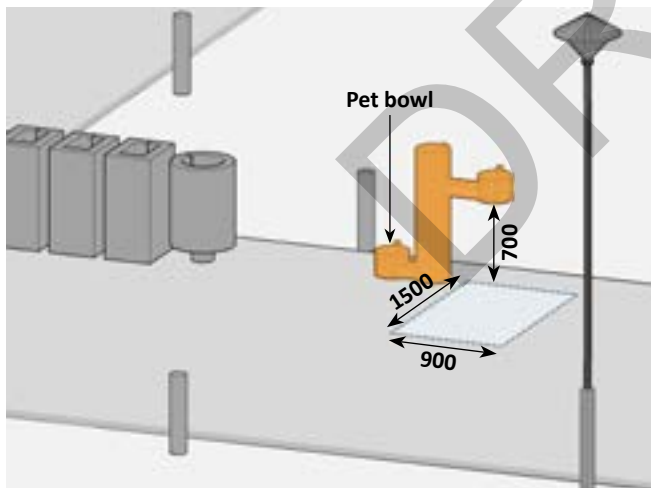
Figure 57: Drinking fountain in park

3.4.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.4.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **80**.

3.4.3.5 Pre-certificate rating submission:

a) Draft strategy and conceptual drawings outlining the design approach on the provision, placement, location, and standards of publicly accessible drinking water fountains, ensuring consistency within the masterplan area.

b) Conceptual drawings that detail the specifications of drinking fountains, including provisions at two different heights for accessibility, and their integration with adjacent accessible paths

3.4.3.6 Certificate rating submission:

a) Updated strategy and drawings outlining the actual provision/numbers, placement, location, and standards of publicly accessible drinking water fountains, ensuring consistency within the masterplan area.

b) As-built drawings and photographic evidence confirming the specifications of accessible drinking fountains, including provisions at two different heights, and their integration with adjacent accessible paths.

3.4.3.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual

3.4.4 EFE.3.04 Enhanced drinking fountains

3.4.4.1 Intent:

To ensure consistent access and seamless connections to drinking water at significantly convenient locations, between increased number of pedestrian amenities for all users within the assessed community.

3.4.4.2 Requirements:

All designs, drawings and specifications of the development or renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a strategy for the placement and standard of publicly available drinking fountains for the masterplan area in accordance with **"Sahel Public Realm Rating System – EFE.2.06 Drinking fountains"** and should:

    a) Have all (100%) drinking fountains within the public realm, designed to be accessible and be provided inside the transportation stops shelter, outside, close to the shelter and passenger loading and unloading zones with waiting areas.
    b) Be provided no further than 20 m from outdoor gyms, sports fields and exercise equipment.

3.4.4.3 Pre-certificate rating credits:

Table 29: EFE.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	20	Demonstrate a strategy for placement of drinking fountains in transportation stop shelters or outside.
20	20	Demonstrate a strategy for placement of drinking fountains near outdoor gyms, sports fields and exercise equipment

3.4.4.4 Certificate rating credits:

Table 30: EFE.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	20	Confirm the implementation of drinking fountains in transportation stop shelters or outside.
20	20	Confirm the implementation of drinking fountains near outdoor gyms, sports fields and exercise equipment

3.4.4.5 Pre-certificate rating submission:

a) Draft strategy and conceptual drawings outlining the design approach on the provision, placement, location, and standards of publicly accessible drinking water fountains, ensuring its consistency within the masterplan area including the transportation hubs/stops.

b) Conceptual drawings that detail the specifications of drinking fountains, including provisions at two different heights for accessibility, intended use for children, and their integration with adjacent accessible paths.

3.4.4.6 Certificate rating submission:

a) Updated strategy and drawings outlining the actual provision/numbers, placement, location, and standards of publicly accessible drinking water fountains, ensuring its consistency within the masterplan area, including the transportation hubs/stops.

b) As-built drawings and photographic evidence confirming the specifications of accessible drinking fountains, including provisions at two different heights, and intended use for children, and their integration with adjacent accessible paths.

3.5   EQC.3 Environment Quality and Comfort

This category evaluates how comfortable and welcoming the environment is for individuals with diverse access needs. It considers factors like lighting, temperature, noise levels, air quality, and visual aesthetics.

Table 31: Environment Quality and Comfort

EQC	Environment Quality and Comfort	Requirement type	Credit Points Applicability	
			New Community development/ redevelopment	Existing community renovation
EQC.3.01	Thermal comfort	Mandatory	R	100
EQC.3.02	Enhanced thermal comfort	Recommended	70	80
EQC.3.03	Air quality	Mandatory	R	100
EQC.3.04	Enhanced air quality	Recommended	30	50
EQC.3.05	Enhanced acoustics	Recommended	40	60
EQC.3.06	Visual comfort	Mandatory	R	70
EQC.3.07	Enhanced visual comfort	Recommended	60	70
EQC.3.08	Lighting strategy	Mandatory	R	30
EQC.3.09	Enhanced lighting strategy	Recommended	15	15
		Best Practice	30	30
	Total		**245**	**605**

3.5.1 EQC.3.01 Thermal comfort

3.5.1.1 Intent:

To ensure outdoor thermal comfort and reduce discomfort caused by temperature or humidity during transitional and extreme months, implement shading in public open spaces and sidewalks to enhance functionality, including rest points, public transportation stops, and pedestrian paths.

3.5.1.2 Requirements:

Mandatory:

Demonstrate a strategy for the provision of shading points (Figures 58, 59,60) within the assessed community and their spatial disposition in accordance with Estidama Pearl Rating System: LC-R4 and **"Sahel Public Realm Rating System – EQC.2.01 Thermal comfort (outdoor)"** at 1 PM which shall include:

a) **70 Credits in renovation.**
   i. Identifying spaces as priority areas for shading, including all:
      a. Primary and secondary pedestrian paths and cycle tracks
      b. Surface car parking and accessible parking spaces
      c. Rest points
      d. Applicable public open spaces including the following:
         • Plazas
         • Playgrounds
         • Pocket parks
         • Other public open spaces.
   ii. Provisions for shading percentage in accordance with **"Sahel Public Realm Rating System – EQC.2.01 Thermal comfort (outdoor)"**.

b) **30 Credits in renovation.**
   i. Provisions for the design of shading structures to allow for adequate ventilation to prevent heat buildup underneath and heat island effects.

Figure 58: Rest points with shading structures
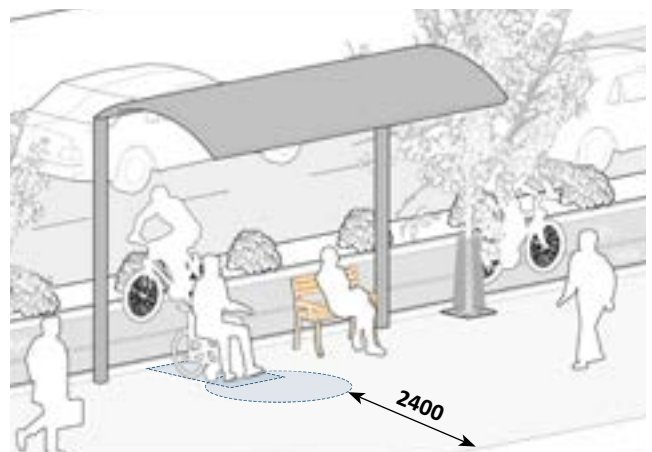
Figure 59: Rest point at sidewalk with shading structure
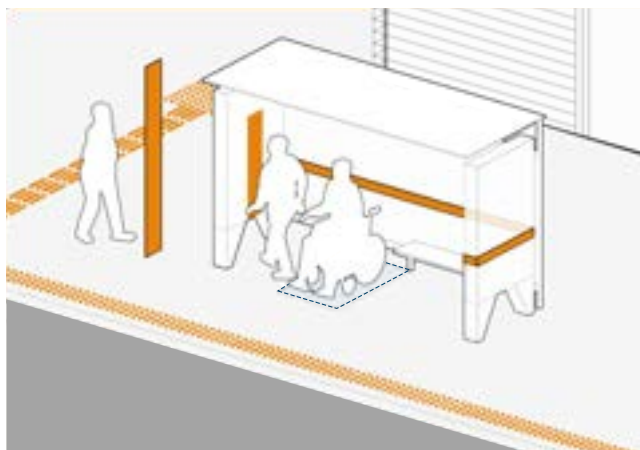
Figure 60: Climate-controlled bus shelter

3.5.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.5.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.5.1.5 Pre-certificate rating submission:

a) Preliminary strategy and drawings demonstrating the provision of shading, the proposed locations and percentages of potential and existing shading points, and the accessibility criteria for shading points along accessible routes and facilities, ensuring to meet the requirements of outdoor thermal comfort strategy.

b) Draft report of the design approach and preliminary specifications for shading structures including their features such as sun path/shading simulation and efficient ventilation.

c) Plan and tabulated results showing achievement of % of shading of applicable spaces at 1 PM on the Equinox and Summer Solstice.

3.5.1.6 Certificate rating submission:

a) a)As-built drawings and photographic evidence confirming the provision of shading, the exact locations and percentages of planned and existing shading points, and the accessibility criteria for shading points along accessible routes and facilities, ensuring they have met the requirements of outdoor thermal comfort strategy, accessibility, visibility, and functionality.

b) Final report of the design approach and specifications for shading structures including their features such as sun path/shading simulation, and evidence of compliance with the criteria of not casting strong patterns and efficient ventilation.

c) Updated strategy document reflecting any changes or modifications made during the construction   stage.

3.5.1.7 References:

a) Abu Dhabi International Accessibility Code
b) PR-401 - Abu Dhabi Public Realm Design Manual
c) ROW-603 - Abu Dhabi Urban Street Design Manual
d) Abu Dhabi Outdoor Seating Areas Manual
e) TR-520 Technical Circular - Bus Stop Design Standards
f) f) Estidama Pearl Rating System

3.5.2 EQC.3.02 Enhanced thermal comfort

3.5.2.1 Intent:

To ensure outdoor thermal comfort and reduce discomfort caused by temperature or humidity during transitional and extreme months, implement shading in public open spaces and sidewalks to enhance functionality, including rest points, public transportation stops, and pedestrian paths.

3.5.2.2 Requirements

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Demonstrate a strategy for the provision of shading points within the assessed community and their spatial disposition in accordance with Estidama Pearl Rating System: LC-9 and **"Sahel Public Realm Rating System – EQC.2.02 Enhanced thermal comfort (outdoor)"** at 1 PM and should include:

    a) Rules for increasing the coverage of specific areas within the assessed community, which require at least the provision of shading shown in the table below:

Table 32: EQC.3.02 Recommended Shade Provision

Areas of public realm	Final shade provision (%)
Public open spaces (e.g., courtyards)	70%
Primary and secondary paths	85%
Cycle tracks	65%

    b) Rules to consider natural methods such as water canals or ponds, open vegetated walls and green channels aligned with prevailing winds, to help cool the surrounding area and create microclimates of comfort.

3.5.2.3 Pre-certificate rating credits:

Table 33: EQC.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
40	40	Design a strategy to increase the shaded surfaces.
30	40	Demonstrate the implementation of the strategy to use natural and artificial methods to cool the areas.

3.5.2.4 Certificate rating credits:

Table 34: EQC.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
40	40	Demonstrate the implementation of the strategy to increase the shaded surfaces.
30	40	Demonstrate the implementation of the strategy to use natural and artificial methods to cool the areas.

3.5.2.5 Pre-certificate rating submission:

Recommended:

a) Preliminary strategy and drawings demonstrating the enhanced provision of shading, the proposed locations of potential and existing shading points, and the accessibility criteria for shading points along accessible routes and facilities, ensuring to meet the requirements of outdoor thermal comfort strategy.

b) Draft report of the design approach and preliminary specifications for shading structures including their features such as sun path/shading simulation and the integration of water features in public spaces to enhance microclimates, cooling of surrounding areas and effective ventilation.

c) Concept drawings and preliminary study including the methodology, data sources, assumptions, and results of the thermal comfort analysis, showing how the thermal comfort has informed the design decisions for the masterplan, such as the orientation, layout, shape, size, and materials of the built environment, and the provision of shading, natural ventilation, and cooling systems.

3.5.2.6 Certificate rating submission:

Recommended:

a) As-built drawings and photographic evidence confirming the provision of shading, the exact locations of planned and existing shading points, and the accessibility criteria for shading points along accessible routes and facilities, ensuring they have met the requirements of outdoor thermal comfort strategy, accessibility, visibility, and functionality.

b) Final report of the design and specifications for shading structures including their features such as sun path/shading simulation, evidence of compliance with the criteria of not casting strong patterns, efficient ventilation, and integration of water features in public spaces to enhance microclimates, cooling.

c) Updated strategy document reflecting any changes or modifications made during the construction stage.

d) As-built drawings and updated reports of the thermal comfort analysis, illustrating how the thermal comfort has informed the design decisions for the assessed community, such as the orientation, layout, shape, size, and materials of the built environment, and the provision of shading, natural ventilation, and cooling systems.

3.5.3 EQC.3.03 Air quality

3.5.3.1 Intent:

To ensure the delivery of fresh and clean air to mitigate health risks for individuals prone to respiratory issues, such as those with allergies or other health concerns related to air pollution and odors.

3.5.3.2 Requirements:

Mandatory:

The asset shall provide safe air quality for all its users in accordance with **Estidama Pearl Rating System: LS-R5** and **"Sahel Public Realm Rating System – EQC.2.03 Air quality"** and by:

a) 30 Credits in renovation.
   i. Perform a microclimate study and demonstration of its impact on the design process for the masterplan (e.g., to avoid odors or polluted air affecting public spaces and sensitive developments such as housing, or healthcare).

b) 40 Credits in renovation.
   i. Green spaces outdoors (Figure 61) shall be strategically preserved and expanded, taking into account the general terrain of the region. Landscaping strategies, such as planting trees and vegetation, installing permeable surfaces, and creating green buffers, shall be implemented to help mitigate outdoor humidity levels.

c) 30 Credits in renovation.
   i. Policies shall be enforced to control emissions from industrial and commercial activities within the community, including measures to limit emissions of pollutants such as particulate matter, and hazardous air pollutants.
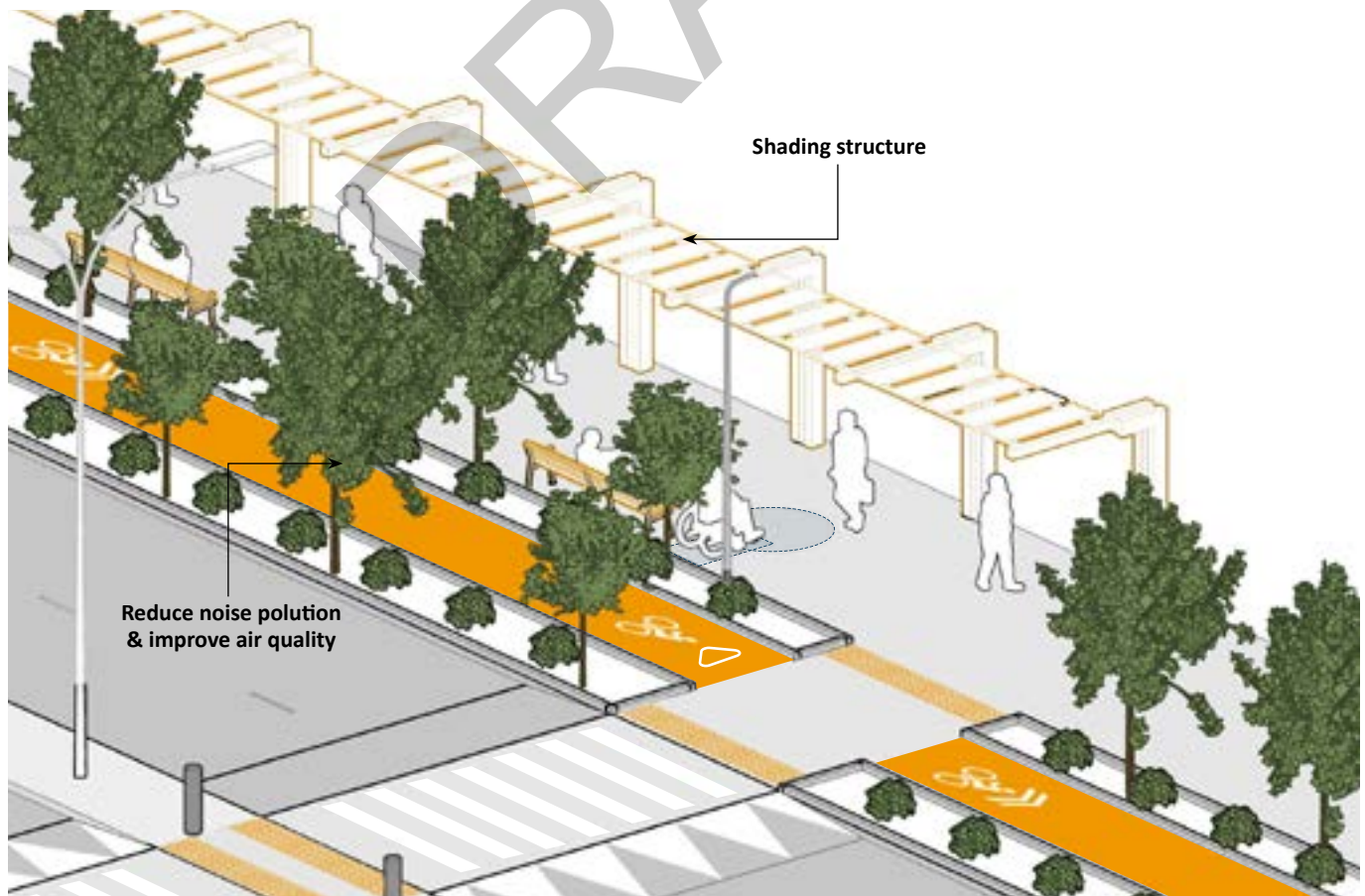
Figure 61: Reduce noise, pollution, and improve air quality at sidewalks

3.5.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.5.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.5.3.5 Pre-certificate rating submission:

a) A microclimate study report, including the methodology, data sources, assumptions, and results of the microclimate analysis such as wind speed, air temperature, humidity, and air quality.

b) Design drawings showing how the microclimate study has informed the design decisions for the masterplan, such as the orientation, layout, type of greenery (odor/allergens), provision of ventilation, filtration, and greenery systems.

c) Initial draft report and narratives for the strategic preservation and expansion of green spaces, and to enhance pedestrian friendly infrastructure including proposals for car-free zones, pedestrianized streets, and improvements to public transportation options.

d) Initial drawings showing the proposed locations for dedicated smoking areas, ensuring they are efficiently positioned near a building or facility.

e) Draft policies to regulate emissions from industrial and commercial activities within the community.

3.5.3.6 Certificate rating submission:

a) Updated microclimate study report, including any additional data, analysis, or validation performed during or after the construction stage.

b) As-built documentation confirming the implementation of the design as per the design drawings and highlighting any deviations or discrepancies from the original design.

c) Evidence of completed report showing the implementation of green space preservation and expansion, and pedestrian friendly infrastructure such as the establishment of car-free zones, pedestrianized streets, and upgraded public transportation facilities.

d) As-built drawings and photographs confirming the establishment of dedicated smoking areas, ensuring they are efficiently positioned near a building or facility.

e) Updated policy document that enforces regulations on emissions from industrial and commercial activities within the community, outlining specific measures taken to limit pollution.

3.5.3.7 References:

a) Abu Dhabi International Accessibility Code
b) PR-401 - Abu Dhabi Public Realm Design Manual
c) ROW-603 - Abu Dhabi Urban Street Design Manual
d) Estidama Pearl Rating System

3.5.4 EQC.3.04 Enhanced air quality

3.5.4.1 Intent:

To ensure the delivery of fresh and clean air to mitigate health risks for individuals prone to respiratory issues, such as those with allergies or other health concerns related to air pollution and odors.

3.5.4.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

a) A digital system should be established for issuing air quality alerts and advisories to the community during periods of poor air quality, such as high levels of pollution and guidance on the protective measures individuals can take to reduce their exposure, especially near noxious sources.

b) The community should be situated in minimum 1 km distance to noxious sources, such as:

  i. Hazardous waste sites
  ii. Heavy industrial or manufacturing sites, such as oil refineries, coal mines, chemical plants, or auto-plants
  iii. Cropland with pesticide applications
  iv. Highways
  v. Nuclear power plants
  vi. Above-ground bus and/or train depots
  vii. Ship ports
  viii. Landfills

3.5.4.3 Pre-certificate rating credits:

Table 35: EQC.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
30	50	No noxious sources within 1km of public realm assets and the provision of an accessible information system to ensure the community is well-informed about the digital air quality alerts and advisories such as air pollutions levels as a phone app.

3.5.4.4 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
30	50	Verified distance of minimum 1km from noxious sources to public realm assets and the availability of an accessible information system to ensure the community is well-informed about the digital air quality alerts and advisories such as air pollutions levels as a phone app.

3.5.4.5 Pre-certificate rating submission:

a) Site analysis and calculations proving that the distance between the community and noxious sources is at least 1km (distances are calculated via the Direct Route Indices method)

b) Draft policies to regulate emissions from industrial and commercial activities within the community.

c) Narrative describing how information about air quality will be provided.

3.5.4.6 Certificate rating submission:

a) Updated site analysis and calculations proving that the distance between community and noxious sources is at least 1km.

b) Updated policy document that enforces regulations on emissions from industrial and commercial activities within the community, outlining specific measures taken to limit pollution.

c) Updated narrative describing how information about air quality is provided.

3.5.5 EQC.3.05 Enhanced acoustics

3.5.5.1 Intent:

To create acoustic conditions that align with sensitivity and privacy requirements, prevent disturbances and communication issues, and enhance privacy and sound quality for residents and visitors.

3.5.5.2 Requirements:

Recommended:

a) The prevailing noise levels in residential areas, central activity areas, special areas for sports centers or tourism, and green spaces should not exceed 50 dBA at night and 60 dBA during the daytime. Similarly, the prevailing noise level in the immediate vicinity of healthcare facilities should not exceed 45 dBA at night and 55 dBA during the daytime.

b) Further details regarding prevailing background noise at specific times should be in accordance with **"Sahel Public Realm Rating System – EQC.2.05 Enhanced acoustics"** and should be achieved using the following strategies:

i. Natural features such as vegetation, berms, and barriers should be used to mitigate sound transmission and provide acoustic buffering between noise sources and sensitive receptors.

ii. Noise barriers (Figure 62) and buffers corridors along roadways, railways, and other transportation corridors should be installed to reduce the transmission of noise to adjacent residential areas and public spaces.

iii. Sound-absorbing materials and surfaces should be incorporated into the design of outdoor community spaces, such as acoustic paving, permeable surfaces, and insulated walls, to minimize reverberation and control sound reflections.
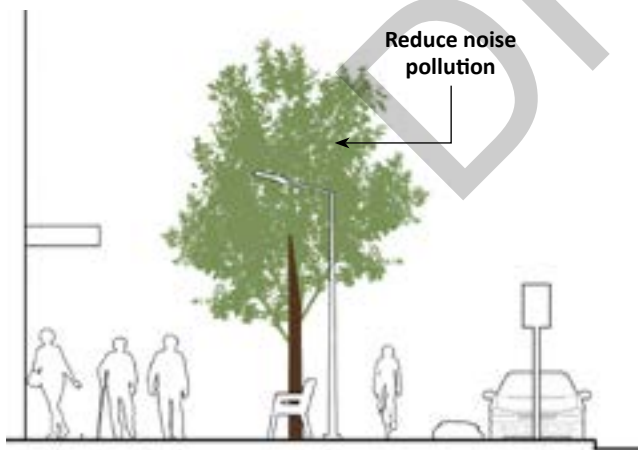
Figure 62: Reduce noise pollution on sidewalks

3.5.5.3 Pre-certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	Recommended:
20	30	Use natural methods to reduce acoustic pollution.
20	30	Use artificial materials and methods to reduce acoustic pollution.

3.5.5.4 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	Recommended:
20	30	Confirm the use of natural methods to reduce acoustic pollution.
20	30	Confirm the use of artificial materials and methods to reduce acoustic pollution.

3.5.5.5 Pre-certificate rating submission:

a) Initial acoustic study to assess noise impacts, and how these findings will influence the masterplan design including the design criteria and standards for avoiding nuisance.

b) Drawings showing the existing and planned noise sources and sensitive developments within and around the masterplan area, as well as the proposed noise mitigation including the incorporation of sound absorbing materials in the design of outdoor community spaces.

c) Specification of material that will be used and its sound-absorbing properties.

3.5.5.6 Certificate rating submission:

a) Updated acoustic study report reflecting any changes or modifications made during the construction stage, as well as the actual noise measurements and compliance checks within the assessed community.

b) As-built drawings showing the actual locations and performance of the noise mitigation measures, as well as any deviations or discrepancies from the design drawings.

c) Specification of material that has been used and its sound-absorbing properties.

3.5.6 EQC.3.06 Visual comfort

3.5.6.1 Intent:

To support self-guided orientation and reduce stress, by providing necessary contrasts and limiting patterns or color combinations, ensuring a calm and easily navigable environment.

3.5.6.2 Requirements:

Mandatory:

a) **40 Credits in renovation.**

   i. Develop a unified concept for the placement and design of street furniture, signage, and facilities of public realm within the masterplan area to avoid visual clutter (Figure 63).

b) **30 Credits in renovation.**

   i. Develop a coherent strategy for color palette and patterns on the outdoor finishes within the masterplan area which shall include:

   a. The avoidance of high contrast between darker and lighter parts of the floor and patterns that have repetitive, geometric designs, or in vivid, contrasting colors, on large surfaces to avoid visual disorientating in accordance with **"Sahel Building Rating System – EQC.109 Wall and floor finishes"**.

   b. The avoidance of highly reflective materials on large surfaces such as on streets, sidewalks, walls, or large street furniture and glazing by using glare-reducing materials and techniques (e.g., matte finishes, anti-glare coatings, or orientation of building facades) to minimize reflections and glare.
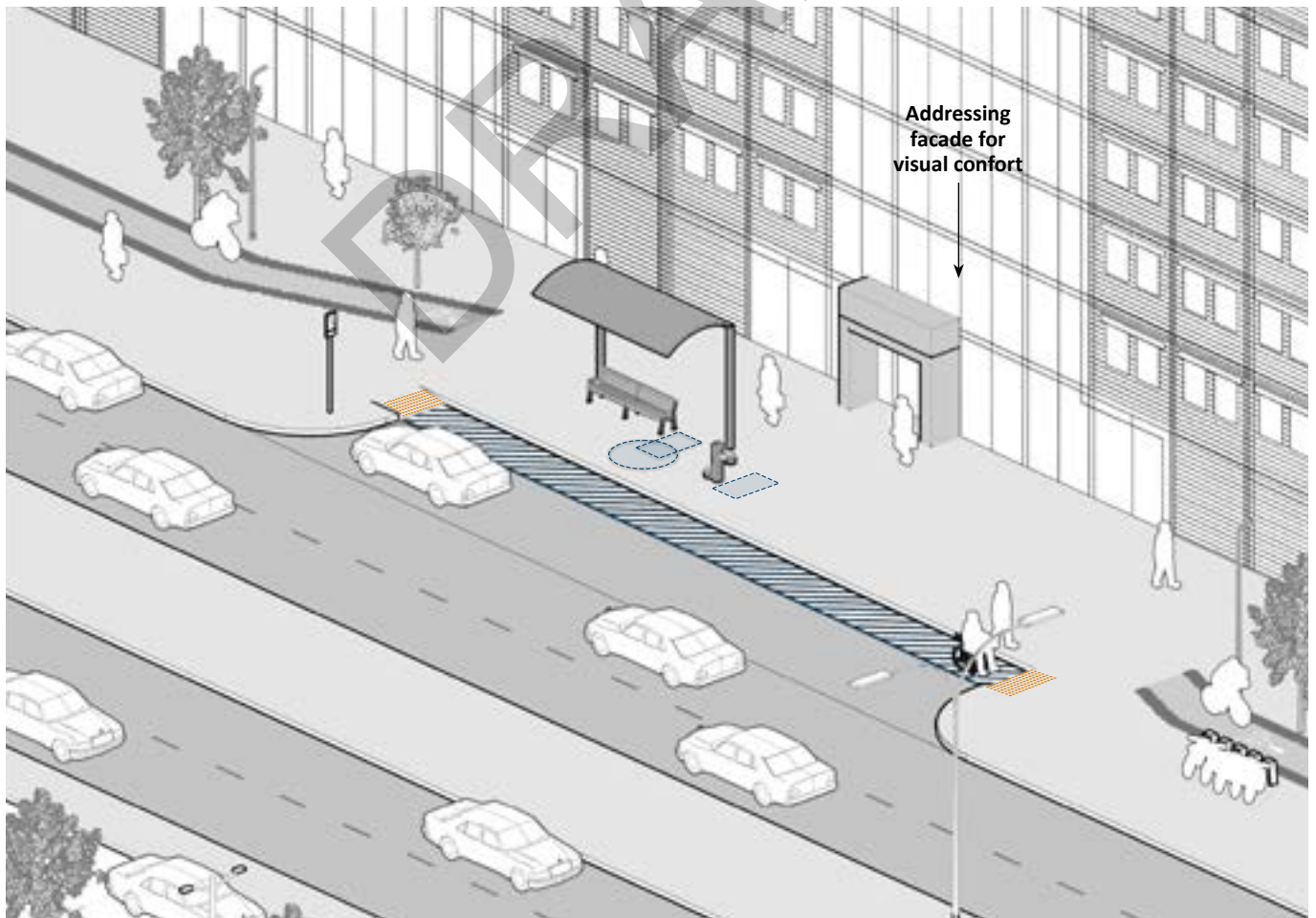
Figure 63: Addressing façades for visual comfort

3.5.6.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **70**.

3.5.6.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **70**.

3.5.6.5 Pre-certificate rating submission:

a) Strategy document outlining the design approach, objectives, and standards for unified/ harmonic appearance of the public realm and buildings within the community.

b) Strategy document outlining the design approach of unified and consistent placement of street furniture and signage to avoid visual clutter.

c) Comprehensive strategy document showing the proposed colors for the masterplan components, the calculated contrast ratios for the different categories of elements (e.g. large surfaces, elements used for navigation/circulation, potential hazards, etc.) based on manufacturer's specifications, and enhanced design philosophies such as avoidance of glare, visually disorientating patterns, reflective materials on large surfaces.

3.5.6.6 Certificate rating submission:

a) Updated strategy document reflecting any changes or modifications made during the construction and re-construction stage, as well as the actual measurements and verification of the contrast ratios of the masterplan components.

b) Updated strategy document reflecting unified and consistent placement of street furniture and signage made during the construction and re-construction stage.

c) Updated strategy document showing the actual colors and contrast ratios of the components within the assessed community tested through LRV meter (see glossary) along with the implemented design schemes during the construction stage such as avoidance of glare, visually disorientating patterns, reflective materials on large surfaces.

3.5.6.7 References:

a) Abu Dhabi International Building Code, 2013

b) Abu Dhabi International Accessibility Code

c) PR-401 - Abu Dhabi Public Realm Design Manual

d) ROW-603 - Abu Dhabi Urban Street Design Manual

e) DP-304_Community Facility Planning Standards

f) Abu Dhabi Architectural Facade Design Manual

g) Abu Dhabi Storefront Design Manual

h) Commercial Signage Regulation

3.5.7 EQC.3.07 Enhanced visual comfort

3.5.7.1 Intent:

To support self-guided orientation and reduce stress, by providing necessary contrasts and limiting patterns or color combinations, ensuring a calm and easily navigable environment.

3.5.7.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Develop a strategy to design communities and cities at human scale to create pedestrian and outdoor environments that are accessible, comfortable, and conducive to human interaction. The strategy should:

a) Ensure street designs allow for 'eyes on the street' which increase the walkability, safety, and physical and visual accessibility of the community, using open ground level plans with visual access into the street, reduced usage of non-transparent glazing or solid façades with minimal openings in primary and secondary corridors.

b) Ensure façade designs do not create a sensory overload by the overuse of surfaces with repetitive patterns, high contrast, or reflective surfaces.

c) Ensure that the placement of interesting elements in the public realm is within a vertical viewing angle of 60 to 70 degrees above eye level and 15 to 20 degrees below eye level, and an accessible horizontal viewing range between 1200 mm and 1800 mm.

3.5.7.3 Pre-certificate rating credits:

Table 39: EQC.3.07 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
30	30	Design streets to be visually pleasant
10	20	Design preventing sensorial overload from facades
20	20	Design and visibility of interesting elements

3.5.7.4 Certificate rating credits:

Table 40: EQC.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
30	30	Confirmed that the strategy to fulfil the recommended requirements is implemented
10	20	Confirmed that the strategy to fulfil the recommended requirements is implemented
20	20	Confirmed that the strategy to fulfil the recommended requirements is implemented

3.5.7.5 Pre-certificate rating submission:

Recommended:

a) A strategy document outlining the design approach, objectives, and standards for unified/harmonic appearance of the public realm and buildings within the community.

b) A strategy document outlining the design approach of unified and consistent placement of street furniture and signage to avoid visual clutter.

c) A comprehensive strategy document showing the proposed colors for the masterplan components, the calculated contrast ratios for the different categories of elements (e.g. large surfaces, elements used for navigation/circulation, potential hazards, etc.), and enhanced design philosophies such as avoidance of glare, visually disorientating patterns, reflective materials on large surfaces.

d) Preliminary masterplan of street designs that ensure walkability, safety, and visual accessibility, and conceptual drawings and strategies of the façade design to enhance human-scale interactions within the masterplan area.

3.5.7.6 Certificate rating submission:

Recommended:

a) Updated strategy document reflecting any changes or modifications made during the construction and re-construction stage, as well as the actual measurements and verification of the contrast ratios of the masterplan components.

b) Updated strategy document reflecting unified and consistent placement of street furniture and signage made during the construction and re-construction stage.

c) Updated strategy document showing the actual colors and contrast ratios of the components within the assessed community along with the implemented design schemes during the construction and re-construction stage such as avoidance of glare, visually disorientating patterns, reflective materials on large surfaces.

d) As-built situations and photographic evidence of the street and façade designs and any changes or modifications made during the construction and re-construction stage, enhancing the human-scale interactions within the assessed community.

3.5.8 EQC.3.08 Lighting strategy

3.5.8.1 Intent:

To ensure adequate illumination levels for visibility, safety, and overall accessibility including street lighting, advertising and decorative lighting design solutions, and its effects on the overall ambiance, safety and functionality of the community.

3.5.8.2 Requirements:

Mandatory:

Develop a strategy for coherent outdoor lighting and ways to tackle the use of advertising and decorative lighting within the masterplan area, which shall include:

a) 20 Credits in renovation.
   i. Rules for the provision of an even distribution of light to mitigate strong cast shadows, ensure evenly lit ground surfaces, safety, and visibility at night and not cause any glare into adjacent properties.
   ii. Lighting design shall highlight the clear accessible path for pedestrians by placing fixtures strategically and employing lights of varying intensities or colors to delineate paths, highlight points of interest, and provide visual cues for directionality.
   iii. Rules for lighting guidance in accordance with **"Sahel Public Realm Rating System – EQC.2.08 Lighting and display"**, **"Sahel Building Rating System – EQC.1.11 Lighting and display"** and PR-402_Lighting Manual.

b) 10 Credits in renovation.
   i. Well-lit hazardous areas to mitigate risks of accident, enhancing overall safety.
   ii. Advertising lighting and displays that are positioned and angled in a way that minimizes obstruction of sidewalks and paths and designed to avoid glare by controlling brightness and intensity, for unimpeded pedestrian flow and accessibility.

3.5.8.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **30**.

3.5.8.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **30**.

3.5.8.5 Pre-certificate rating submission:

a) A preliminary strategy document outlining the design approach, objectives, and standards for coherent outdoor guidance within the masterplan area.
b) A preliminary strategy document and preliminary studies outlining the proposed light distribution, placement of advertising lighting, and the intent of lighting in navigation, wayfinding, and accessibility within the masterplan area.

3.5.8.6 Certificate rating submission:

a) Updated strategy document reflecting any changes or modifications made during the construction stage, as well as the actual measurements and verification of the illuminance levels for different areas of the masterplan.

b) Updated strategy document and comprehensive study outlining the implemented light distribution, placement of advertising lighting, and the effect of lighting in navigation, wayfinding, and accessibility within the assessed community.

3.5.8.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) ROW-603 - Abu Dhabi Urban Street Design Manual
e) DP-304_Community Facility Planning Standards
f) Abu Dhabi Architectural Facade Design Manual
g) Commercial Signage Regulations
h) PR-402_Lighting Manual

3.5.9 EQC.3.09 Enhanced lighting strategy

3.5.9.1 Intent:

To ensure adequate illumination levels for enhanced visibility, safety, and overall accessibility including street lighting, advertising and decorative lighting design solutions, and its effects on the overall ambiance, safety and functionality of public open spaces and sidewalks and generally in the neighborhoods.

3.5.9.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Develop a strategy for coherent outdoor lighting and ways to tackle the use of advertising and decorative lighting within the masterplan area, which should include:

a) Rules for the provision of an even distribution of light to mitigate strong cast shadows, ensure evenly lit ground surfaces, safety, and visibility at night, not cause any glare into adjacent properties and the implementation of lighting controls, such as:
   i. motion sensors or timers, to ensure that paths remain adequately lit for pedestrians, including those who may require additional time to navigate through the area.

Best Practice:

Develop a strategy for coherent outdoor lighting within the masterplan area, which should include:

a) Night-time visibility and navigation with better lighting, raised crosswalks, and tactile feedback systems, including ground vibration signals at crossings and tactile markings should be improved and implemented.

3.5.9.3 Pre-certificate rating credits:

Table 41: EQC.3.09 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
15	15	Policies for even distribution of light by using motion sensors or timers that provides additional time to navigate
		Best Practice:
30	30	Night-time visibility and navigation with better lighting, raised crosswalks, and tactile feedback systems

3.5.9.4 Certificate rating credits:

Table 42: EQC.3.09 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
15	15	Policies for even distribution of light by using motion sensors or timers that provides additional time to navigate
		Best Practice:
30	30	Night-time visibility and navigation with better lighting, raised crosswalks, and tactile feedback systems

3.5.9.5 Pre-certificate rating submission:

Recommended and Best Practice:

a) A preliminary strategy document outlining the design approach, objectives, and standards for coherent outdoor lighting guidance within the masterplan area.

b) A preliminary strategy document and preliminary studies outlining the proposed light distribution, and the intent of lighting in navigation, wayfinding, and accessibility within the masterplan area.

c) An initial narrative and policy report of the proposed strategies for the provision of within the masterplan.

d) A comprehensive document outlining the strategy for improving night-time visibility and navigation, including the rationale behind each proposed measure, expected benefits, and potential challenges.

3.5.9.6 Certificate rating submission:

Recommended and Best Practice:

a) Updated strategy document reflecting any changes or modifications made during the construction stage, as well as the actual measurements and verification of the illuminance levels for different areas of the masterplan.

b) Updated strategy document and comprehensive study outlining the implemented light distribution, placement of advertising lighting, and the effect of lighting in navigation, wayfinding, and accessibility within the assessed community.

c) Updated policy report of the placement, positioning, and visual comfort regulations such as glare, intensity, or brightness of the of as-built advertising lighting and displays within the assessed community.

d) As-built narrative and technical specifications confirming the enhanced infrastructure for night-time visibility including standards for lighting levels, crosswalk design, tactile feedback systems, and compliance requirements for public and private entities.

3.6   HC.3 Hygiene and Care

This category examines the provision of hygiene facilities for all users regarding restrooms. Hygiene and Care include aspects such as type, coverage, and location.

Table 43: Hygiene and Care

HC	Hygiene and Care	Requirement type	Credit Points Applicability	
			New Community development/ redevelopment	Existing community renovation
HC.3.01	Accessible toilet rooms	Mandatory	R	120
HC.3.02	Enhanced accessible toilet rooms	Recommended	40	40
		Best Practice	15	15
HC.3.03	Family toilets	Mandatory	R	50
HC.3.04	Enhanced family toilets	Recommended	18	18
	Total		**73**	**243**

3.6.1 HC.3.01 Accessible toilet rooms

3.6.1.1 Intent:

To provide equitable access to all users for essential facilities such as toilets, that are seamlessly integrated and conveniently located close to other accessible amenities within the overall community.

3.6.1.2 Requirements:

Mandatory:

Develop a strategy of a network of accessible public toilets within the masterplan in accordance with **Abu Dhabi Public Toilets Manual** and **Abu Dhabi International Accessibility Standards, 2013**. The strategy shall:

a) **30 Credits in renovation.**
   i. Ensure when positioned within the vicinity of public facilities with active pedestrian footfall, the maximum distance between two consecutive toilets shall be within 500 m (distances are calculated via the Direct Route Indices method)
   ii. Define approximate locations (Figure 64) of the facilities based on the typology of the surrounding assets, their size and expected occupant load in facilities of public use such as:
      a. Public open spaces such as parks, playgrounds, plazas, etc.
      b. Recreational open spaces such as trails, boardwalks and viewing points.
      c. Beaches and waterfronts
      d. Near other transportation nodes and services such as transportation stops, stations, etc.

b) **60 Credits in renovation.**
   i. Define a minimum number and capacity of accessible public toilet rooms, ambulant stalls and ambulant urinals in accordance with **"Sahel Building Rating System – HC.1.01 Accessible toilet rooms"**.

c) **30 Credits in renovation.**
   i. Require accessible public toilets to be located on accessible routes and shall be positioned so that they do not obstruct pedestrian paths, cycling tracks, or any other public right-of-way elements, thereby maintaining unimpeded access for all users.

| Governmental building | Beach | Mosque | Park |
| School | Offices | Gas station | Mall |
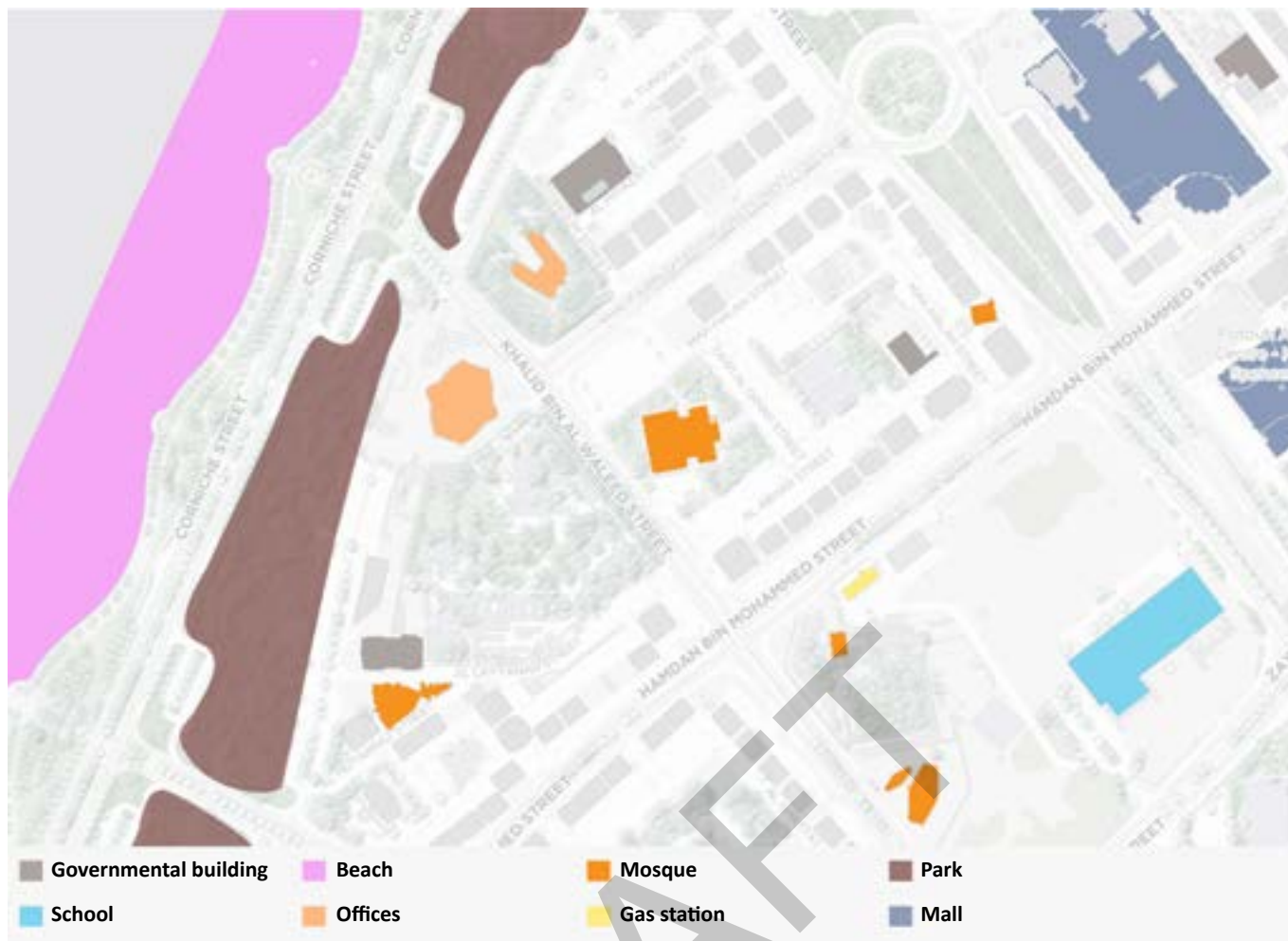
Figure 64: General map of accessible toilet room locations

3.6.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.6.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.6.1.5 Pre-certificate rating submission:

a) Narrative describing how the project meets the credit requirements, including the number and type of toilet rooms, the percentage of ambulant and accessible urinals and compartments, and the design features that ensure accessibility and comfort for all users.

3.6.1.6 Certificate rating submission:

a) Updated strategy and as-built drawings showing the provisional numbers, capacities, exact locations of accessible public toilets and its integration with the accessible routes and other accessible entities within the assessed community.

b) As-built drawings showing the actual implementation of the toilet rooms, with the same level of detail and annotation as the design drawings. Any discrepancies or variations from the design drawings must be highlighted and explained

c) Photographs of the toilet rooms, showing the overall appearance and the accessibility features, such as the grab bars, the shattaf, the flush control, the washbasin, the mirror, the paper dispenser, and the coat hook. The photographs must also show the accessible route and the clear turning circle and clear floor space within the toilet rooms.

3.6.1.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Standards, 2013
c) PR-401 Abu Dhabi Public Realm Design Manual
d) DP-304 Community Facility Planning Standards
e) Abu Dhabi Public Toilet Planning and Regulation Manual.

3.6.2 HC.3.02 Enhanced accessible toilet rooms

3.6.2.1 Intent:

To provide equitable access to all users for essential facilities such as toilets, that are seamlessly integrated and conveniently located close to other accessible amenities within the overall community.

3.6.2.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

All enhanced requirements (Recommended) for the provision of accessible toilets and independent accessible toilet compartments should be in accordance with the **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**, wherever applicable.

Best Practice:

All enhanced requirements (Best Practice) for privacy in accessible toilets and ambulant urinals within ambulant toilets should be in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**, wherever applicable.

3.6.2.3 Pre-certificate rating credits:

Refer to **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**.

3.6.2.4 Pre-certificate rating credits:

Table 44: HC.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
40	40	Strategy showing location of accessible toilets and independent accessible toilet compartments in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**
		Best Practice:
15	15	Strategy showing location of accessible toilets with privacy and ambulant urinals in ambulant toilets in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**

3.6.2.5 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
40	40	Confirm the location of accessible toilets and independent accessible toilet compartments in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**
		Best Practice:
15	15	Confirm the locations of accessible toilets with privacy and ambulant urinals in ambulant toilets in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**

3.6.2.6 Pre-certificate rating submission:

Conceptual drawings based on **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**.

3.6.2.7 Certificate rating submission:

Refer to **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**.

3.6.3 HC.3.03 Family toilets

3.6.3.1 Intent:

To provide equitable access to inclusive essential facilities such as family toilets, usable by people of all ages, sizes, abilities, and family compositions, seamlessly integrated with other accessible facilities and the overall community.

3.6.3.2 Requirements:

Mandatory:

Define approximate locations of the family toilet based on the typology of the surrounding assets, and minimum number or capacity as per the expected occupant load in facilities of public use in accordance with **Abu Dhabi International Building Code, 2013** and **Abu Dhabi Public Toilets Manual**.

   a) 15 Credits in renovation.
   - **i.** At least one family toilet shall be provided at facilities of public use in addition to accessible public toilets, in:
       - **a.** Public open spaces such as parks, playgrounds, plazas, etc.
       - **b.** Recreational open spaces such as trails, boardwalks and viewing points.
       - **c.** Beaches and waterfronts.

   b) 20 Credits in renovation.
   - **i.** At least one family toilet room shall be provided wherever six or more male and female water closets are provided in a facility of public use or when an accessible toilet is not provided in each gender toilet section in existing facilities.

   c) 15 Credits in renovation.
   - **i.** Require family toilets to be located on accessible routes and positioned so that they shall not obstruct pedestrian paths, cycling tracks, or any other public right-of-way elements, thereby maintaining unimpeded access for all users.

3.6.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **50**.

3.6.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **50**.

3.6.3.5 Pre-certificate rating submission:

   a) Narrative describing how the project meets the credit requirements, including the number and location of family toilets, the features of changing table, the toilet bowl, the shattaf, the flush control, the grab bars, the washbasin, the mirror, the paper dispenser, the coat hook, the call for assistance device, the signage, the luminance contrast, the illuminance, and the floor surface.

3.6.3.6 Certificate rating submission:

a) Updated narrative describing how the project meets the credit requirements, including any changes or deviations from the original design and the reasons for them.

b) As-built drawings showing the actual implementation of the family toilets, with the same level of detail and annotation as the design drawings. Any discrepancies or variations from the design drawings must be highlighted and explained.

c) Photographs of the family toilets, showing the overall appearance and the accessibility features, such as the changing table, toilet bowl, shattaf, flush control, grab bars, washbasin, mirror, paper dispenser, coat hook, call for assistance device, doors, and signage. The photographs must also show the accessible route, the turning circle, the clear floor space, the opening force, the luminance contrast, the illuminance, and the floor surface within the family toilets.

3.6.3.7 References:

a) Abu Dhabi International Accessibility Code
b) Abu Dhabi International Building Code, 2013
c) PR-401 - Abu Dhabi Public Realm Design Manual
d) DP-304_Community Facility Planning Standards
e) Abu Dhabi Public Toilet Planning and Regulation Manual

3.6.4 HC.3.04 Enhanced family toilets

3.6.4.1 Intent:

To provide equitable access to inclusive essential facilities such as family toilets, usable by people of all ages, sizes, abilities, and family compositions, seamlessly integrated and in proximity with other accessible facilities and the overall public realm.

3.6.4.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Develop a strategy for the network of accessible family toilets for the masterplan. The strategy should ensure:

a) At least one family toilet should be located within 100 m, calculated via the Direct Route Indices Method, from facilities of public use such as picnic areas, barbecue pits, and playgrounds.

b) At least one family toilet shall have a ceiling hoist that requires a reinforced ceiling or additional space for a portable hoist storage.

3.6.4.3 Pre-certificate rating credits:

Table 46: HC.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	10	Design them at less than 100m from facilities.
8	8	Design them to have a ceiling hoist or storage space for a portable hoist.

3.6.4.4 Certificate rating credits:

Table 47: HC.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	10	Provide them at less than 100m from facilities
8	8	Provide a ceiling hoist or storage space for a portable hoist.

3.6.4.5 Pre-certificate rating submission:

Recommended:

a) Narrative describing how the project intends to meet the recommended requirements for enhanced family toilets

b) Conceptual drawings showing the layout and dimensions of the enhanced family toilets, the location and measurements of the baby holder, changing table, toilet bowl, shattaf, flush control, grab bars, washbasin, mirror, paper dispenser, coat hook, call for assistance device, doors, and signage. The drawings must also indicate the accessible route, the turning circle, the clear floor space, the opening force, the luminance contrast, the illuminance, and the floor surface within the family toilets.

3.6.4.6 Certificate rating submission:

Recommended:

a) Updated narrative describing how the asset meets the recommended requirements, including any changes or deviations from the original design and the reasons for them.

b) As-built drawings showing the actual implementation of the enhanced family toilets, with the same level of detail and annotation as the design drawings. Any discrepancies or variations from the design drawings must be highlighted and explained.

c) Photographs of the family toilets, showing the overall appearance and the accessibility features, such as the baby holder, changing table, toilet bowl, shattaf, flush control, grab bars, washbasin, mirror, paper dispenser, coat hook, call for assistance device, doors, and signage. The photographs must also show the accessible route, the turning circle, the clear floor space, the opening force, the color contrast, the illuminance, and the floor surface within the family toilets.

3.7   DA.3 Digital Accessibility

This category assesses how accessible digital technologies and services are for all users in public settings, including websites, apps, and programs. Digital Accessibility includes aspects such as usability, readability, compatibility, and security of digital technologies and services such as Wi-Fi for public transportation and GIS system.

Table 48: Digital Accessibility

DA	Digital Accessibility	Requirement type	Credit Points Applicability	
			New Community development/ redevelopment	Existing community renovation
DA.3.01	Asset webpage	Mandatory	R	3
DA.3.02	Enhanced asset webpage	Recommended	3	3
		Best Practice	2	2
DA.3.03	Asset presence in common use apps	Mandatory	R	2
DA.3.04	Enhanced asset apps	Recommended	5	5
		Best Practice	4	4
DA.3.05	Online user feedback platform	Mandatory	R	2
DA.3.06	Enhanced online user feedback platform	Recommended	2	2
		Best Practice	2	2
DA.3.07	Enhanced Wi-Fi access	Recommended	10	10
DA.3.08	GIS information	Mandatory	R	10
	Total		**28**	**45**

3.7.1 DA.3.01 Asset webpage

3.7.1.1 Intent:

To ensure that all facilities of public-use in each community, have accessible web pages with vital information accessible for all.

This is achieved by conforming to the Web Content Accessibility Guidelines (WCAG) 2.2, which are structured into three levels of accessibility:

- **Level A (Basic Accessibility)**: Ensures non-text content has text alternatives, all functionality is accessible via keyboard, and content is correctly parsed.
- **Level AA (Mid-Level Accessibility)**: Ensures adequate contrast, text resizability, multiple ways to navigate, language of content parts can be determined, and error suggestions are provided.
- **Level AAA (High-Level Accessibility)**: Provides enhanced accessibility with sign language interpretation, enhanced contrast, no content flashing more than three times per second, detailed link purposes, and mechanisms for defining unusual words.

3.7.1.2 Requirements:

Mandatory:

It is applicable to all public open spaces within the community, heritage sites, open recreational areas such as beaches, nature trails, etc., and public transportation at district level and higher. It is not applicable for streetscape.

The asset shall feature an AA level WCAG Framework 2.2 compliant web page which shall:

   a) 3 Credits in renovation projects.
   - **i.** Include critical information: addresses, contact data, service range, accessibility provisions, emergency information.
   - **ii.** Include Arabic and English versions.
   - **iii.** Include core information presented in digitally accessible formats.

3.7.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **3**.

3.7.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **3**.

3.7.1.5 Pre-certificate rating submission:

A statement issued by the asset owner that the asset will have a webpage providing essential data: Address, contact data, service range, accessibility provisions, emergency information, and meet WCAG Framework 2.2.

3.7.1.6 Certificate rating submission:

   a) Link to operational web page providing essential data: Address, contact data, service range, accessibility provisions, emergency information.
   b) A Digital Accessibility Compliance report issued by an auditor on behalf of the owner of the webpage confirming it meets WCAG Framework 2.2.

3.7.2 DA.3.02 Enhanced asset webpage

3.7.2.1 Applicability:

Applicable to all public open spaces, heritage sites, open recreational areas such as beaches, nature trails, etc., and public transportation at neighborhood level and higher. It is not applicable for streetscape.

3.7.2.2 Intent:

To ensure that all facilities of public-use in each community, have accessible web pages with vital information accessible for all.

This is achieved by conforming to the Web Content Accessibility Guidelines (WCAG) 2.2, which are structured into three levels of accessibility:

- **Level A (Basic Accessibility)**: Ensures non-text content has text alternatives, all functionality is accessible via keyboard, and content is correctly parsed.
- **Level AA (Mid-Level Accessibility)**: Ensures adequate contrast, text readability, multiple ways to navigate, language of content parts can be determined, and error suggestions are provided.
- **Level AAA (High-Level Accessibility)**: Provides enhanced accessibility with sign language interpretation, enhanced contrast, no content flashing more than three times per second, detailed link purposes, and mechanisms for defining unusual words.

3.7.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

The asset should feature an AA level WCAG 2.2 compliant web page which should:

- **a)** Include detailed mapping of physical access throughout space.
- **b)** Include Information presented in layered formats (e.g., clear summaries linked to in-depth sections).
- **c)** Include fully text-based and optimized for screen readers.
- **d)** Offer alternative modes of consumption (e.g., audio versions, transcripts).

Best Practice:

The asset should feature an AA level WCAG 2.2 compliant web page which should:

- **a)** Have an option for requesting information on where to find assistance, if needed.
- **b)** Have clear, proactive notification of accessibility barriers on routes.
- **c)** The sections of the website that contain complex data or a high quantity of readable text feature an AAA WCAG-compliant format.

3.7.2.4 Pre-certificate rating credits:

Table 49: DA.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
3	3	Develop a detailed map of physical access throughout space. Present information in layered formats (clear summaries linked to in-depth sections), ensure it is fully text-based and optimized for screen readers, and offer alternative modes of consumption (audio versions, transcripts).
		Best Practice:
2	2	Incorporate provisions for 'request for information', and where to find assistance if needed. Develop a clear, proactive notification system for accessibility barriers on routes. Achieve an AAA level WCAG-compliant format when applicable.

3.7.2.5 Certificate rating credits:

Table 50: DA.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
3	3	Confirm that the detailed mapping of physical access throughout space has been implemented as per the design. Verify that the information is presented in layered formats, is fully text-based and optimized for screen readers and offers alternative modes of consumption as per the design.
		Best Practice:
2	2	Incorporate provisions for information on where to find assistance if needed. Develop a clear, proactive notification system for accessibility barriers on routes. Verify the achievement of AAA level WCAG-compliant format when applicable.

3.7.2.6 Pre-certificate rating submission:

Recommended:

    a) A statement issued by the asset owner that the asset will have an AA level WCAG 2.2 compliant webpage providing recommended features:

        i. Detailed mapping of physical access throughout space.

        ii. Information is presented in layered formats (clear summaries linked to in-depth sections), is fully text-based and optimized for screen readers, and offers alternative modes of consumption (audio versions, transcripts).

        iii. An AAA level WCAG2.2 compliant webpage when required due to quantity of complexity of data.

Best Practice:

    a) A statement issued by the asset owner that the asset will have a WCAG2.2 compliant webpage providing mandatory, recommended data, and in order to meet best practices following functions:

        i. Options for information on where to find assistance if needed.

        ii. Clear, proactive notification of accessibility barriers on routes.

3.7.2.7 Certificate rating submission:

Recommended:

    a) A report confirming operational WCAG 2.1 Level AA compliant web page providing recommended   features.

        i. Detailed mapping of physical access throughout space.

        ii. Information is presented in layered formats (clear summaries linked to in-depth sections), is fully text-based, and optimized for screen readers, and offers alternative modes of consumption (audio versions, transcripts).

Best Practice:

    a) An WCAG2.2 compliant operational webpage providing mandatory, recommended data and in order to meet best practices following functions:

        i. Options for information on where to find assistance if needed.

        ii. Clear, proactive notification of accessibility barriers on routes

    b) A Digital Accessibility Compliance report issued by an auditor on behalf of the owner of the webpage confirming it meets AAA level WCAG Framework 2.2 when required due to quantity of complexity of data.

3.7.3 DA.3.03 Asset presence in common use apps

3.7.3.1 Intent:

To guarantee that accessibility information of the community is provided in common use navigation apps like Onwani or Google Maps, among others.

3.7.3.2 Requirements:

Mandatory:

 a) **2 Credits in renovation.**
  i. Guarantee that all important assets are present in common use navigation apps providing useful information regarding their accessibility.
  ii. The information about accessibility to be included can be:
   a. Provision of toilets, parking, location of drinking water fountains, among others.
   b. Accessibility of open spaces of district level and higher, streetscapes, recreational open spaces such as beaches, trails, boardwalks or public Transportation stations, among others.

3.7.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **2**.

3.7.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **2**.

3.7.3.5 Pre-certificate rating submission:

 a) List of apps where the information about the accessibility of the assets will be uploaded.
 b) List of assets and type of accessibility data that will be uploaded in the apps.

3.7.3.6 Certificate rating submission:

 a) List of apps where the information about the accessibility of the assets has been uploaded.
 b) Provide links to the apps that display the accessibility information of the assets.

3.7.4 DA.3.04 Enhanced asset apps

3.7.4.1 Intent:

To develop an asset app for the community that ensures all facilities of public use are streamlined to provide access to resources and information, accessible to all individuals, fostering inclusivity and empowerment.

3.7.4.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

The asset features an internal wayfinding and navigation app to support services available at the asset and functionalities to persons with access needs (related to hearing, mobility, vision, cognition/neurodiversity) services. The application should:

a) Provide turn-by-turn navigation with detailed route descriptions, haptic and audio feedback to guide users.

b) Have enhanced visual cues, customizable interface and brightness, and options for simplified layouts for those with sensory sensitivities and low vision.

c) Include internal exploration layers highlighting points of Interest or rest.

d) Include customizable overlay views indicating key reference points to aid spatial orientation.

e) Offer the ability to call for and request assistance from asset staff.

f) Have discreet text, video chat, and visual assistance options to ensure that users can request help privately, minimizing reliance on public or potentially embarrassing requests.

g) Provision for SOS points at public areas more than 2000 sqm in size, in accordance with the **"Sahel Public Realm Rating System – ESP.2.01 Enhanced SOS points"**.

Best Practice:

The asset features an internal wayfinding and navigation app to support services available at the asset and functionalities to persons with access needs (related to hearing, mobility, vision, cognition/neurodiversity) services. The application should:

a) Have multimodal hazard notification, proactively available (accessible before encountering danger zones), and may leverage personal device integration as appropriate.

b) Include Intuitive wayfinding tools offering multimodal directions that break down tasks into simple steps.

c) Have integrated sensory considerations (calm spaces findable via filtering)

d) Use plain language and visual summaries in chosen areas.

3.7.4.3 Pre-certificate rating credits:

Table 51: DA.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
5	5	Develop an online interactive map according to recommended requirements.
		Best Practice:
4	4	Design a multimodal system for easy wayfinding navigation

3.7.4.4 Certificate rating credits:

Table 52: DA.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
5	5	Verify that the online interactive map aligns with the design and has features according to the recommended requirements.
		Best Practice:
4	4	Confirm the implementation of a multimodal system for easy wayfinding navigation

3.7.4.5 Pre-certificate rating submission:

Recommended:

a) A statement issued by the asset owner that it will have an application with recommended features:
  i. Enhanced visual cues, customizable interface and brightness, options for simplified layouts for those with sensory sensitivities and low vision.
  ii. Indoor exploration layers highlighting points of Interest.
  iii. Customizable overlay views indicating key reference points to aid spatial orientation.
  iv. Ability to call for and request assistance from asset staff.
  v. Discreet text, video chat, and visual assistance options ensure that users can request help privately, minimizing reliance on public or potentially embarrassing requests.

Best Practice:

a) A statement issued by the asset owner that it will have an AA level WCAG 2.2 compliant application with mandatory, recommended and the following best practice features:

 i. Have multimodal hazard notification, proactively available (accessible before encountering danger zones), and may leverage personal device integration as appropriate.
 ii. Include Intuitive wayfinding tools offering multimodal directions that break down tasks into simple steps.
 iii. Have integrated sensory considerations (calm spaces findable via filtering)
 iv. Use plain language and visual summaries in chosen areas.
 v. Multimodal hazard notification, proactively available (accessible prior to encountering danger zones), and may leverage personal device integration as appropriate.
 vi. Intuitive wayfinding tools offering multimodal directions that break down tasks into simple steps.

3.7.4.6 Certificate rating submission:

Recommended:

a) A report confirming an operational an AA level WCAG 2.2 compliant application for the asset confirming required features:

 i. Enhanced visual cues, customizable interface and brightness, options for simplified layouts for those with sensory sensitivities and low vision.
 ii. Indoor exploration layers highlighting points of Interest.
 iii. Customizable overlay views indicating key reference points to aid spatial orientation.
 iv. Ability to call for and request assistance from asset staff.
 v. Discreet text, video chat, and visual assistance options ensure that users can request help privately, minimizing reliance on public or potentially embarrassing requests.

b) A Digital Accessibility Compliance report issued by an auditor on behalf of the owner of the application confirming it meets an AA level WCAG 2.2 compliant.

Best Practice:

a) A report confirming an operational WCAG 2.1 Level AA compliant application for the asset featuring mandatory, recommended and the following best practice features:

 i. Enhanced visual cues, customizable interface and brightness, options for simplified layouts for those with sensory sensitivities and low vision.
 ii. Indoor exploration layers highlighting Points of Interest.
 iii. Customizable overlay views indicating key reference points to aid spatial orientation.
 iv. Ability to call for and request assistance from asset staff.
 v. Discreet text, video chat, and visual assistance options ensure that users can request help privately, minimizing reliance on public or potentially embarrassing requests.

b) A Digital Accessibility Compliance report issued by an auditor on behalf of the owner of the application confirming compliance with an AA level WCAG 2.2 compliant.

3.7.5 DA.3.05 Online user feedback platform

3.7.5.1 Intent:

To ensure that the assessed community offers digital options via web and app for the user feedback collection.

3.7.5.2 Requirements:

Mandatory:

    a) **2 Credits in renovation.**

        i.   The asset shall offer digital options via the web for building user feedback collection, which shall:

           a. Be provided via accessible, (AA level WCAG 2.2) online feedback forms for reporting accessibility and maintenance barriers faced by all users.

           b. Offer an option of direct support in the completion of feedback forms.

           c. Be applicable to:
- All open spaces of district level and higher
- Streetscapes: City and town boulevards and avenues
- Recreational open spaces such as beaches, trails, boardwalks, etc.,
- Public Transportation stations

3.7.5.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **2**.

3.7.5.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **2**.

3.7.5.5 Pre-certificate rating submission:

    a) A draft statement by the asset owner that an AA level WCAG 2.2 compliant on-line feedback form will be available for users of the asset.

    b) Plan with proposed locations of information on availability of on-line feedback form.

3.7.5.6 Certificate rating submission:

    a) Pictures or screenshots confirming that the feedback form is available for users (screenshots from asset webpage information of feedback form availability).

    b) A sample feedback form in digital format meeting an AA level WCAG 2.2.

    c) A report issued by a Digital Accessibility auditor that the feedback form is AA level WCAG 2.2compliant.

3.7.6 DA.3.06 Enhanced online user feedback platform

3.7.6.1 Intent:

To ensure that the assessed community offers enhanced digital options via web and app for the user feedback collection.

3.7.6.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

The asset should feature the recommendations in accordance with: **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

Best Practice:

The asset should feature the best practices in accordance **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

3.7.6.3 Pre-certificate rating credits:

Table 53: DA.3.06 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
2	2	Strategy for a user feedback platform accessible to all, with multi-modal interaction options including text forms, simplified input forms, and the option to upload visual content in accordance with **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.
		Best Practice:
2	2	Strategy for a user feedback platform that is accessible to all, with integration options for SMS and messaging apps in accordance with **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

3.7.6.4 Certificate rating credits:

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
2	2	Confirm the implementation of the user feedback platform with the planned accessibility features and verify its functionality in accordance with **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.
		Best Practice:
2	2	Confirm the implementation of the user feedback platform with the planned accessibility features and verify its functionality in accordance with **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

3.7.6.5 Pre-certificate rating submission:

Refer to **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

3.7.6.6 Certificate rating submission:

Refer to **"Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform"**.

3.7.7 DA.3.07 Enhanced Wi-Fi access

3.7.7.1 Intent:

To propose a comprehensive plan for enhancing internet-based aids (e.g., navigation tools, communication with care, translation) free of charge, in community spaces of public use, ensuring seamless connectivity and inclusivity for all users.

3.7.7.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

The asset should offer publicly accessible free Wi-Fi which should:

a) Offer wide device accessibility: user-friendly login and usability for varied tech in mind (laptops, phones, and assistive devices).
b) Offer speed and reliability: ability to handle significant usage, reducing crowding if speeds falter when numerous people tap in.
c) Provide physical and digital security strong encryption, user guide covering online safety precautions and recognizing potentially fraudulent networks.
d) Be applicable to:
   i. All open spaces of district level and higher
   ii. Streetscapes: City and town boulevards and avenues
   iii. Recreational open spaces such as trails, boardwalks, etc.,
   iv. Public Transportation stations
   v. Transit stops
e) Have equitable placement: Evenly spread seamless coverage to prevent exclusion of WI-FI to some users, and avoiding the limitations such as dead zones, weak signals, and limited accessibility in certain areas.

3.7.7.3 Pre-certificate rating credits:

Table 55: DA.3.07 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	10	Develop a plan for a publicly accessible free Wi-Fi system that is user-friendly, reliable, secure, and evenly distributed across the asset.

3.7.7.4 Certificate rating credits:

Table 56: DA.3.07 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
10	10	Confirm the implementation of the planned Wi-Fi system, ensuring it meets the criteria for device accessibility, speed, security, and equitable placement.

3.7.7.5 Pre-certificate rating submission:

a) A statement by the asset owner confirming that it will have publicly accessible free Wi-Fi featuring the type of devices and their accessibility, speed and reliability, physical and digital security.

b) A statement by the asset owner ensuring the equitable placement and even coverage of free WI-FI to prevent exclusion of any users.

3.7.7.6 Certificate rating submission:

a) A report confirming publicly accessible fully operational free Wi-Fi at the asset featuring the type of devices and their accessibility, speed and reliability, physical and digital security.

b) A report confirming there is even and equitable placement and coverage of free WI-FI to prevent exclusion of any users.

c) As-built documentation confirming:
   i. Signal coverage on a site plan with measurement locations.
   ii. Network capacity: maximum number of users with guaranteed minimum transfer.

3.7.8 DA.3.08 GIS information

3.7.8.1 Intent:

To develop a network of locations and spatial data of the accessible facilities within an asset of public use at community level.

3.7.8.2 Requirements:

Mandatory:

a) **10 Credits in renovation.**
  i. The elements, components, and features of the accessible network within the assessed community shall be recorded in the municipal GIS library. This includes:
    a. Accessible pedestrian paths
    b. Accessible parking spaces (number, type, location).
    c. Accessible public transportation stops (type, location).
    d. Accessible passenger loading zone and accessible taxi stands (location, additional features).
    e. Accessible public toilets (number, type, location, additional features).
    f. Accessible rest points (location, type, features).
    g. Accessible drinking fountains.
    h. SOS points.

3.7.8.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **10**.

3.7.8.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **10**.

3.7.8.5 Pre-certificate rating submission:

A narrative describing how the project meets the requirement of recording accessible elements or facilities at community level in the municipal GIS library.

3.7.8.6 Certificate rating submission:

a) Updated narrative describing how the asset meets the requirement, including any changes made during the construction stage.
b) Evidence of the information recorded in the municipal GIS library.

3.8   OC.3 Orientation and Communication

This category assesses and strategizes the facilitation of Orientation and Communication for people with varying access needs in public settings at masterplan scale. Orientation and Communication include signage, wayfinding, information, and interaction of Orientation and Communication systems, for efficient wayfinding.

Table 57: Orientation and Communication

OC	Orientation and Communication	Requirement type	Credit points applicability	
			New Community development/ redevelopment	Existing community renovation
OC.3.01	Wayfinding and communication strategy	Mandatory	R	120
OC.3.02	Enhanced wayfinding and communication strategy	Recommended	40	80
	Total		**40**	**200**

3.8.1 OC.3.01 Wayfinding and communication strategy

3.8.1.1 Intent:

To design and implement comprehensive and intuitive wayfinding strategies within the overall community, that promotes safety and inclusivity for seamless, independent and efficient navigation for all users.

3.8.1.2 Requirements:

Mandatory:

Signage serves as a key tool to support both independent and group-led wayfinding across all spaces, outdoors, including streets, open spaces. All developments and redevelopments within the certification boundary shall implement a comprehensive strategy for signage and wayfinding at community level that shall prioritize intuitive navigation and accessibility for all users. All signage within the community shall ensure:

a) **50 Credits in renovation.**
   i. Signage shall be strategically located throughout the outdoor environment to facilitate continuous, accessible, inclusive, and connective routes for orientation and navigation.
   ii. Signage shall be located in outdoor spaces, outside the path of travel, to provide and ensure access to at least, but not limited to parking, circulation, decision making points, egress and evacuation to, from, between and within places, transportation and spaces.
   iii. Identity signs shall be used to identify fenced public open spaces and facilities such as parks and playgrounds, building names and their numbers and spaces to identify its service or functionality.
   iv. Directional signs shall be placed at key decision-making points and in consistent, predictable locations along the continuous accessible route without creating a potential hazard.

b) **20 Credits in renovation.**
   i. The provision and design of signage system, tactile signage, color combinations and Tactile Walking Surface Indicators (TWSI) shall be in accordance with **"Sahel Building Rating System – OC.1 Orientation and Communication"** and **"Sahel Public Realm Rating System – OC.2 Orientation and Communication"**.

c) **50 Credits in renovation.**
   i. All public open spaces and streetscape within the certification boundary of the community shall ensure:
      a. All entrances to public open spaces such as parks, playgrounds, etc. and buildings shall be clearly identified and distinct from the surrounding walls, fences, barriers or other buildings and be in accordance with **"Sahel Building Rating System – OC.1.09 Identification of Main Entrances"**.
      b. Facades shall incorporate unique architectural elements or design features at entrances such as canopies, arches, colors or textural contrasts, in accordance with **Abu Dhabi Architectural Façade Design Manual** and **Abu Dhabi Storefront Design Manual**, to eliminate disorientation and to promote clear identification of an asset.

3.8.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.8.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **120**.

3.8.1.5 Pre-certificate rating submission:

Develop a wayfinding strategy and plans to provide orientation to all inhabitants and visitors of the community.

3.8.1.6 Certificate rating submission:

a) Updated strategy document reflecting any changes or modifications made during the construction and re-construction stage.
b) As-built drawings and photographic evidence confirming the provision of wayfinding system implemented including photographs taken at nighttime.

3.8.1.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Standards, 2013
c) Abu Dhabi Architectural Façade Design Manual
d) Abu Dhabi Storefront Design Manual
e) PR-401 Abu Dhabi Public Realm Design Manual

3.8.2 OC.3.02 Enhanced wayfinding and communication strategy

3.8.2.1 Intent:

To design and implement comprehensive and intuitive wayfinding strategies within the overall community, that promotes safety and inclusivity for seamless, independent and efficient navigation for all users.

3.8.2.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

All streetscape within the certification boundary of the community should ensure:

   a) Wayfinding cues along the continuous accessible path, be presented in multiple formats, engaging in hearing, vision, and smell where appropriate. The enhanced locations for guiding and warning Tactile Walking Surface Indicators (TWSI) should be in accordance with **"Sahel Public Realm Rating System – OC.2.04 Enhanced Tactile Walking Surface Indicators (TWSI)"**.
   b) To avoid uniformity in streets and façades through implementation of non-singular elements such as different colors, patterns, architectural identity/forms, landscape, etc., facilitating wayfinding and avoiding disorientation.

Table 58: OC.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	40	Design wayfinding cues along the continuous accessible path, be presented in multiple formats, engaging in hearing, touch, vision, and smell where appropriate, and the provision of guiding and warning Tactile Walking Surfaces Indicators (TWSI) at Recommended locations
20	40	Develop a strategy and plan for all proposed streetscape within the certification boundary to avoid uniformity and design more singular elements such as different colors, patterns, architectural identity/forms or landscape, on the façades.

3.8.2.3 Certificate rating credits:

Table 59: OC.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
20	40	Evidence of provision of wayfinding cues along the continuous accessible path, be presented in multiple formats, engaging in hearing, touch, vision, and smell where appropriate and the provision of guiding and warning Tactile Walking Surfaces Indicators (TWSI) at Recommended locations
20	40	Evidence the plan for all proposed streetscape within the certification boundary to avoid uniformity and design more singular elements such as different colors, patterns, architectural identity/forms or landscape, on the façades.

3.8.2.4 Pre-certificate rating submission:

a) Narrative, draft elevations and conceptual drawings outlining the designed wayfinding cues along the continuous accessible path, be presented in multiple formats, engaging in hearing, touch, vision, and smell where appropriate, as well as the façade designs of buildings or facilities incorporating singular elements such as different colors, patterns, architectural identity/forms, landscape, etc., and its overall visual connection within the rest of the streetscape.

3.8.2.5 Certificate rating submission:

a) Comprehensive drawings with photographic evidence confirming the implementation of wayfinding cues along the continuous accessible path, be presented in multiple formats, engaging in hearing, touch, vision, and smell where appropriate and the implementation of façades of buildings or facilities, the implementation of singular elements such as different colors, patterns, architectural identity/forms, landscape, etc., and the visual connection within the rest of the streetscape.

3.9   ESP.3 Emergency Systems and Procedures

This category examines the preparation and response to emergency situations in public areas, such as fire, flood etc. Emergency Systems and Procedures include aspects such as alert, evacuation, rescue, and recovery of Emergency Systems and Procedures considering all users.

Table 60: Emergency Systems and Procedures

ESP	Emergency Systems and Procedures	Requirement type	Credit points applicability	
			New Community development/ redevelopment	Existing community renovation
ESP.3.01	Emergency Systems and Procedures strategy at community scale	Mandatory	R	100
ESP.3.02	Enhanced Emergency Systems and Procedures strategy at community scale	Recommended	80	80
		Best Practice	150	150
	Total		**230**	**330**

3.9.1 ESP.3.01 Emergency Systems and Procedures strategy at community scale

3.9.1.1 Intent:

To develop a robust and integrated network of emergency response infrastructure at the community level, including strategically placed SOS points, well-marked assembly points, safe and accessible emergency paths, and an effective public addressing system, ensuring comprehensive safety and timely assistance for all individuals in distress.

3.9.1.2 Requirements:

Mandatory:

Develop a comprehensive strategy for establishing Emergency Systems and Procedures within the assessed community, which shall ensure consistency across the network and define technical standards in accordance with **"Sahel Building Rating System – ESP.1 Emergency Systems and Procedures"**. The strategy shall ensure:

a) **50 credits in renovation.**
   i. Compliance with the local laws, Civil Defense procedures and measures.
   ii. Strategic provision and location of assembly points within the community where individuals can congregate following an emergency evacuation, for seamless operation of evacuation procedures.
   iii. Strategies to ensure emergency routes, assembly areas, PA systems and SOS points within the assessed community, shall define technical standards in accordance with **"Sahel Building Rating System – ESP.1 Emergency Systems and Procedures"** (Relevant chapters)

b) **20 credits in renovation.**
   i. Assembly points shall be situated away from potential hazards like chemical storage areas, high-traffic streets, and structures at risk of collapse.
   ii. Assembly points shall be easily identifiable, well-marked and well-lit.

c) **30 credits in renovation.**
   i. Safe, logical and clear evacuation routes shall be available at all times, to facilitate emergency evacuation when in need.
   ii. Strategic location of Public Addressing systems within the community allowing announcements to reach a broad audience quickly, providing essential information and instructions during emergencies.

3.9.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.9.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **100**.

3.9.1.5 Pre-certificate rating submission:

a) A draft strategy outlining the establishment of SOS points within the community. This draft should include and illustrate conceptual maps for ensuring consistency across the network, preliminary concepts for their optimal placement near high-traffic areas or critical Points of Interest (POIs).

b) A draft document detailing initial considerations for the density of SOS points based on population density and risk factors within a defined streetscape.

3.9.1.6 Certificate rating submission:

a) Updated version of the SOS points strategy document, reflecting any changes made during the project implementation.

b) As-built drawings outlining the establishment of SOS points within the community, illustrating the consistency across the network and their optimal placement within the assessed community.

c) A document verifying the implemented density of SOS points, with any necessary adjustments based on local conditions and emergency response times. This should include as-built drawings or maps showing the actual density of SOS points.

3.9.1.7 References:

a) Abu Dhabi International Building Code, 2013
b) Abu Dhabi International Accessibility Code
c) UAE Fire and Life Safety Code of Practice

3.9.2 ESP.3.02 Enhanced Emergency Systems and Procedures strategy at community scale

3.9.2.1 Intent:

To develop a robust, enhanced and integrated network of emergency response infrastructure at the community level, including strategically placed SOS points, well-marked assembly points, safe and accessible emergency paths, and an effective public addressing system, ensuring comprehensive safety and timely assistance for all individuals in distress.

3.9.2.2 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

Develop a comprehensive strategy for establishing Emergency Systems and Procedures within the assessed community, which should ensure:

a) SOS points should be available within 350 m (within a 5 to 10-minute walk), calculated via the Direct Route Indices method in public transportation stops and underpasses/overpasses and should be in accordance with **"Sahel Public Realm Rating System – ESP.2.01 Enhanced SOS points"** and **"Sahel Building Rating System – ESP.1.01 SOS points"**.

b) Accessible asset app that provides real-time updates and guidance to evacuees during an emergency.

Best Practice:

Develop a comprehensive strategy for establishing Emergency Systems and Procedures within the assessed community, which should ensure:

a) SOS points should be available within 600m (within 10 to 15-minute walk) calculated via the Direct Route Indices method, for recreational open spaces, beaches, and waterfronts, and should be in accordance with **"Sahel Public Realm Rating System – ESP.2.01 Enhanced SOS points"** and **"Sahel Building Rating System – ESP.1.01 SOS points"**.

b) Statutory fire signage should be supplemented with either audio or tactile information.

3.9.2.3 Pre-certificate rating credits:

Table 61: ESP.3.02 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
60	60	Design SOS points with multisensory two-way communication systems, strategically located near bus stops and underpasses.
20	20	Develop an online interactive app with real-time updates about emergency situations.
		Best Practice:
100	100	Design SOS points with multisensory two-way communication systems, strategically located in beaches and waterfronts.
50	50	Propose and design statutory signage with multi-format information for all users.

3.9.2.4 Certificate rating credits:

Table 62: ESP.3.02 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
60	60	Provide SOS points with multisensory two-way communication systems, strategically located near bus stops and underpasses.
20	20	Provide an online interactive app with real-time updates about emergency situations.
		Best Practice:
100	100	Provide SOS points with multisensory two-way communication systems, strategically located in beaches and waterfronts.
50	50	Provide statutory signage with multi-format information for all users.

3.9.2.5 Pre-certificate rating submission:

a) A draft strategy outlining the establishment of SOS points within the community. This draft should include and illustrate conceptual maps for ensuring consistency across the network, preliminary concepts for their optimal placement near high-traffic areas or critical Points of Interest (POIs).

b) A draft document detailing initial considerations for the density of SOS points based on population density and risk factors within a defined streetscape.

c) A draft document ensuring that SOS points are equipped with multisensory two-way communication systems, strategically located in a greater number of public areas, to facilitate enhanced and quick access during emergencies.

3.9.2.6 Certificate rating submission:

a) Updated version of the SOS points strategy document, reflecting any changes made during the project implementation.

b) As-built drawings outlining the establishment of SOS points within the community, illustrating the consistency across the network and their optimal placement within the assessed community.

c) A document verifying the implemented density of SOS points, with any necessary adjustments based on local conditions and emergency response times. This should include as-built drawings or maps showing the actual density of SOS points.

d) An evidence document showing that SOS points are equipped with multisensory two-way communication systems, located in a greater number of public areas within the assessed communities, to facilitate enhanced and quick access during emergencies.

3.10 CM.3 Considerate Maintenance

This category evaluates the quality and performance of community maintenance and management throughout the lifespan of the building, public realm, or structure within community. Considerate Maintenance includes aspects such as proficiency, reliability, and transparency of maintenance activities.

Table 63: Considerate Maintenance

CM	Considerate Maintenance	Requirement type	Credit Points Applicability	
			New Community development/ redevelopment	Existing community renovation
CM.3.01	Accessibility focused maintenance	Mandatory	R	30
CM.3.02	Safe zone under construction or maintenance	Mandatory	R	50
CM.3.03	User feedback collection	Mandatory	R	4
CM.3.04	Enhanced user feedback collection (survey)	Recommended	4	4
		Best Practice	4	4
	Total		**8**	**92**

3.10.1 CM.3.01 Accessibility focused maintenance

3.10.1.1 Intent:

To establish mechanisms for monitoring and evaluating the effectiveness and continued functionality of a facility of public-use, to improve the quality of life, accessibility, safety, satisfaction, and overall well-being within the community.

3.10.1.2 Requirements:

Mandatory:

The community shall develop a monitoring, maintenance, and cleaning program standard across the assessed community to ensure the good condition and operability of its accessibility features. The program standard shall include at least:

a) **30 Credits in renovation.**
   i. Policies and procedures of potential, unauthorized, or unintentional modifications that could impact universal access to services and facilities.
   ii. Policies and procedures of regular inspections of the accessible routes and accessible features within the community. These inspections shall be undertaken at least annually, and records of the maintenance problems encountered, and solutions implemented shall be kept being submitted for the certificate renewal.

3.10.1.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **30**.

3.10.1.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **30**.

3.10.1.5 Pre-certificate rating submission:

a) A draft report of the monitoring, maintenance, and cleaning program that includes all the required procedures and schedules.
b) A draft report of the procedures for regular inspections of the accessible routes and accessible features within the asset, and their documentation and archiving procedure.
c) A draft report of the procedures for regular inspections of potential, unauthorized, or unintentional modifications that could impact universal access to services and facilities.

3.10.1.6 Certificate rating submission:

a) The final report of the monitoring, maintenance, and cleaning program that includes all the required procedures and schedules.
b) The final report of the procedures for regular inspections of the accessible routes and accessible features within the asset and their documentation and archiving procedure.
c) The final report of the procedures for regular inspections of potential, unauthorized, or unintentional modifications that could impact universal access to services and facilities.
d) Evidence of the program's implementation, such as inspection records, maintenance logs, and any other relevant documents or records. This evidence should demonstrate that the program is being effectively implemented and that it is ensuring the good condition and operability of the asset's accessibility features.

3.10.2 CM.3.02 Safe zone under construction or maintenance

3.10.2.1 Intent:

To establish mechanisms for monitoring and evaluating the continued functionality of a facility of public-use during construction and renovations, to ensure there is no compromise on the everyday well-being, safety, and quality of life within the community.

3.10.2.2 Requirements:

Mandatory:

The community shall develop an accessible and safe zone under construction or maintenance program standards within the assessed community to ensure the safety and accessibility of the asset during renovation/maintenance works. The program standard shall include at least:

a) **30 Credits in renovation.**
   Policies and procedures of documentation and archiving of safe, hazard-free, accessible, uninterrupted access: Roads, sidewalks, and related infrastructure undergoing repairs, resurfacing, construction, or maintenance activities (Figure 65) shall ensure the preservation of areas specifically designated for the safe passage of all users.

b) **20 Credits in renovation.**
   GIS system and Google Maps updates to inform about ongoing maintenance, the duration of the construction and maintenance work, and alternative accessible routes.

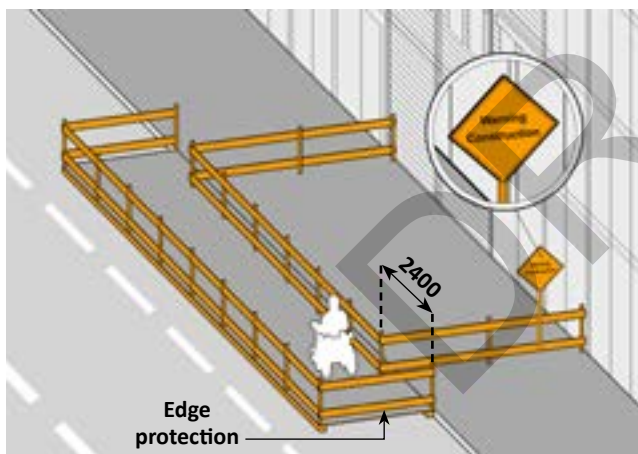**Figure 65:** Construction and rerouting accessible route

3.10.2.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **50**.

3.10.2.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **50**.

3.10.2.5 Pre-certificate rating submission:

a) A draft of the Accessible and Safe Zone Under Construction or Maintenance Program, detailing the policies, standards, and procedures outlined in the requirements.

b) Preliminary drawings and specifications showing the proposed safe and accessible zones, and alternative pedestrian paths during construction or maintenance works, ensuring they meet the required standards.

c) Preliminary records leveraging the technology and spatial data, illustrating the ongoing maintenance, duration, and alternatives for continued inclusivity.

d) A proposed schedule for regular inspections and compliance checks.

3.10.2.6 Certificate rating submission:

a) The final Accessible and Safe Zone Under Construction or Maintenance Program, incorporating any changes or updates made during the design stage.

b) As-built drawings and specifications confirm the implementation of the safe and accessible zones and alternative accessible pedestrian paths, meeting the required standards.

c) A final record of leveraging technology and spatial data, illustrating the ongoing maintenance, duration, and alternatives for continued inclusivity.

d) Records of inspections, maintenance activities, and any reported barriers or hazards.

e) A report summarizing the compliance checks, including any issues identified and actions taken to address them.

3.10.2.7 References:

a) PR-401 Abu Dhabi Public Realm Design Manual

3.10.3 CM.3.03 User feedback collection

3.10.3.1 Intent:

To ensure all users of a community have access to report issues, drawbacks, or feedback about an accessible service or facility serving the community.

3.10.3.2 Requirements:

Mandatory:

    a) 4 Credits in renovation.
      i. The community shall develop a system that allows users to leave feedback or complaints regarding accessibility within the assessed community in a physical format (e.g., by filling in a form) or digital format (in an app or website). The system shall include at least:
        a. Policies and procedures of a user feedback service, register, an update, and information system for the community. The records of these procedures shall be kept, being submitted for the certificate renewal.
        b. Policies and procedures to involve the community and accessibility groups in the design process and receive their feedback in full transparency.

3.10.3.3 Pre-certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **4**.

3.10.3.4 Certificate rating credits:

This is a requirement for new assets. There are no credit points awarded.

Credit points awarded for renovation projects: **4**.

3.10.3.5 Pre-certificate rating submission:

    a) A draft of the Accessibility Feedback and Complaints System, detailing the policies and procedures outlined in the requirements.
    b) Preliminary report showing the proposed implementation of the system, including the process for registering complaints, documenting, and tracking complaints, designating a responsible individual, and setting a response timeframe.

3.10.3.6 Certificate rating submission:

    a) The final Accessibility Feedback and Complaints System, incorporating any changes or updates made during the design stage.
    b) Updated report confirming the implementation of the system, including the process for registering complaints, documenting, and tracking complaints, designating a responsible individual, and setting a response timeframe.
    c) Records of complaints registered (if any) and addressed, including the nature of the complaints, the response provided, and the timeframe within which the complaints were addressed.

3.10.4 CM.3.04 Enhanced user feedback collection (survey)

3.10.4.1 Intent:

To ensure all users of a community have access to report issues, drawbacks, or feedback about an accessible service or facility serving the community through an enhanced system of surveys initiated by the asset owner or manager to measure user gratification and satisfaction.

3.10.4.2 Requirements:

All designs, drawings, and specifications of the development or renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

Recommended:

The community should develop a system that allows users to leave feedback or complaints regarding accessibility within the assessed community in a physical format (e.g., by filling in a form) or digital format (in an app or website, e.g., SeeClickfix). The system should include:

    a) Accessibility surveys which should include at least:
        i. Policies and procedures for accessibility surveys in the community are conducted at least once a year.

Best Practice:

The community should develop a system that allows users to leave feedback or complaints regarding accessibility within the assessed community in a physical format (e.g., by filling in a form) or digital format (in an app or website, e.g., SeeClickfix). The system should include:

    a) The asset should develop a system that allows users to receive feedback from conducted surveys. The system should include:
        i. The asset should publish a report on the survey results annually.
        ii. The report should be made available to both the community staff and visitors in a physical format (e.g., on a wall-mounted information board) and a digital format (e.g., on the community's webpage).
    b) System that collects complaints and informs about ongoing maintenance and changes, through an integration with GIS system (maintenance reporting application).

3.10.4.3 Pre-certificate rating credits:

Table 64: CM.3.04 Pre-certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
4	4	Develop a draft of a program of accessibility surveys according to the recommended requirements.
		Best Practice:
4	4	Develop a draft of a program of accessibility surveys including a procedure for publication of the survey results.
		Develop a draft on the maintenance reporting program and integrate with GIS system.

3.10.4.4 Certificate rating credits:

Table 65: CM.3.04 Certificate rating credits

Credit points		Requirements
New assets	Renovation projects	**Recommended:**
4	4	Verify the implementation of a program of accessibility surveys according to the recommended requirements.
		Best Practice:
4	4	Verify the implementation of program of accessibility surveys including a procedure for publication of the survey results.
		Verify the implementation of maintenance reporting program and integrate with GIS system.

3.10.4.5 Pre-certificate rating submission:

Recommended:

a) Draft of the Accessibility Feedback and Complaints System, detailing the policies and procedures outlined in the requirements.

b) Draft of the Accessibility Survey Program, detailing the policies and procedures outlined in the requirements. This includes the annual accessibility survey procedure, the target response rate, and its content.

c) Proposed schedule for conducting the annual accessibility survey.

d) Sample of the survey form to be used, including questions on user satisfaction, awareness of accessibility features, and suggestions for improvements.

Best Practice:

    a) Draft procedure for the publication of survey results, including the proposed format and frequency of the reports.

    b) Plan for making the report available in both physical and digital formats, including the proposed locations for the physical reports and the design of the webpage for the digital reports.

    c) Draft of evidence of GIS system in integration with the maintenance reporting application during design stage.

3.10.4.6 Certificate rating submission:

Recommended:

    a) The final Accessibility Feedback and Complaints System, incorporating any changes or updates made during the design stage.

    b) Updated report confirming the implementation of the system, including the process for registering complaints, documenting, and tracking complaints, designating a responsible individual, and setting a response timeframe.

    c) Records of complaints registered (if any) and addressed, including the nature of the complaints, the response provided, and the timeframe within which the complaints were addressed.

    d) The final Accessibility Survey Program, incorporating any changes or updates made during the design stage.

    e) Documentation confirming the implementation of the annual accessibility survey, including the number of surveys conducted, the response rate achieved, and any actions taken in response to the survey results.

    f) Updated survey form if any changes were made during the implementation stage.

    g) Summary report of the survey results, including user satisfaction levels, awareness of accessibility features, and suggestions for improvements. The report should also include any actions taken or planned in response to the survey results.

Best Practice:

    a) Documentation of the implemented procedure for the publication of survey results, including evidence of annual report publication (if any were conducted already).

    b) Copies of the published reports in their physical and digital formats.

    c) Screenshots of the webpage where the digital reports are published, showing the date of publication and the accessibility features of the webpage.

    d) Evidence of the implementation of the maintenance reporting program in integration with the GIS system.

4 Glossary and acronyms:

350-m (within 5 to 10-min walk): serves as a benchmark for evaluating the accessibility of amenities, services, or destinations from a central point, which is crucial for ensuring that essential facilities such as parks, schools, shops, or public transportation stops are within a reasonable walking distance for all. While the 350m might vary for people with disabilities, who may require more time or specialized infrastructure such as ramps or tactile paving to navigate the urban environment comfortably and safely, it typically corresponds to a 5 to 10-minute walk. Distances are calculated via the **Direct Route Indices Method**.

Accessible/Accessibility refers to design or features that allow easy use and interaction for people of all ages, faith, cultures, gender, abilities and disabilities people with disabilities. It ensures that everyone can access and use a space, product, or service effectively regardless of their abilities.

Accessibility advisor: a senior-level technical professional specializing in accessibility and inclusion within the built environment who will provide expert guidance throughout the project cycle. They oversee larger scale projects and are deeply involved in addressing complex technical challenges and intricacies such as renovating existing structures, addressing unique design considerations for diverse user groups, and resolving accessibility-related disputes or issues that arise during the project lifecycle. This role requires advanced knowledge and experience in accessibility regulations, standards, and best practices across various domains such as architecture, engineering, construction, and urban planning.

Accessibility body: is a collaborative entity that includes representatives from diverse stakeholder groups, such as persons with disabilities, accessibility experts, advocacy organizations, government agencies, industry representatives, and relevant professionals. Its primary purpose is to champion accessibility initiatives by advocating for the needs of different user groups or other access challenges.

Accessible housing: refers to residences designed or modified to accommodate individuals of all abilities, promoting inclusivity and ease of living with features such as ramps, wider doorways, and other universal design elements to enhance mobility and ensure a safe and comfortable living environment for everyone.

Accessible non-standard cycle parking refers to cycle parking that is wider and is designed to be used by individuals utilizing larger or non-traditional cycles such as cargo cycles, handcycles, or recumbent cycles. Such parking areas are easily reachable and navigable for all users.

Accessible parking: refers to designated parking spaces specifically designed to accommodate individuals with disabilities and families with a stroller with different access needs, providing them with convenient and barrier-free access to facilities and services. The following extended designated accessible parking spaces are provided as types of accessible parking spaces:

- **Standard accessible parking space** refers to designated parking spaces intended for individuals who have disabilities and qualify for a disabled parking permit.
- **Ambulant parking space** refers to designated parking spaces intended for individuals who have temporary or permanent mobility impairments but may not qualify for a disabled parking permit.
- **Family parking space** refers to designated parking spaces that are specifically intended for families with young children, strollers, or expectant mothers. Family parking spaces are usually wider than standard spaces to allow for the extra room needed to maneuver strollers, car seats, and other child-related items.
- **Accessible van parking space** refers to parking spaces for larger vehicles equipped with ramps or lifts, such as wheelchair-accessible vans. These spaces are wider than the standard accessible parking spaces to accommodate the additional space needed for deploying ramps or lifts and allow for easier maneuvering of the vehicle.

Accessible toilets restroom facilities designed for inclusivity, featuring accommodations like grab bars and wider doorways for individuals with diverse abilities.

Accessible path is a continuous, accessible and unobstructed path of travel, connecting all accessible and universally designed elements and spaces in a built environment and transportation. Synonymous with unobstructed travel ways, walking routes, and pedestrian areas, it constitutes a dedicated and well-designed route within the urban landscape. It encompasses primary and secondary paths, pedestrian walkways, and footpaths, creating a pedestrian-friendly infrastructure that ensures safe and convenient movement for individuals on foot. This path, whether part of a segregated or shared-use facility, provides a level surface, encouraging inclusive and seamless circulation opportunities.

Accessible passenger loading zone and accessible taxi stands refers to designated areas designed to facilitate the safe and convenient loading and off-loading of passengers with disabilities. These zones typically provide extra space for deploying wheelchair ramps or lifts, clear signage indicating their use, and may include curb cuts or lowered curbs to ensure a smooth transition between the vehicle and the sidewalk. The design of these zones ensures that passengers with mobility impairments can easily and safely access vehicles or enter and exit a facility.

Assets refer to both **New** and **Existing Assets** in which:

> **New assets:** Development and Redevelopment
>
> New assets refer to either the development of a new property or the complete redevelopment of an existing one, where the structure is rebuilt from scratch. Both types follow the same requirements, as they are treated as entirely new constructions.
>
> **Existing assets:** Renovations and Retrofitting
>
> Existing assets include properties that undergo renovations or retrofitting. These processes involve modifying or upgrading the structure without rebuilding it from scratch, and they are subject to specific requirements tailored to maintaining or improving the existing framework.

Bariatric seating: Specifically designed seating to accommodate individuals with higher weight or body mass. Bariatric seating provides comfort and safety for larger individuals.

(Certification) Asset: the subject of certification – a building, part of a public realm or community depending on the tier of certification rating used) – which is assessed in the certification process.

Certifying institution: an organization responsible for maintaining, managing, and operating the rating system, providing training and issuing certificates as well as credentials to professionals. It is assumed that for this system the certifying institution will be a dedicated division of DMT.

CIE Glare Rating Method: a method developed by the International Commission on Illumination (CIE) to assess glare in lighting environments. It quantifies the discomfort caused by excessive brightness or reflections.

Color Rendering Index (CRI): a metric that measures how accurately a light source renders colors compared to natural sunlight. Higher CRI values indicate better color fidelity.

Community center: a Community Facility intended for use by local community members to gather for group activities, social support, public information and other related purposes. Community Centers are generally located within the core of the neighborhood, with easy accessibility for all.

Community facility: a building, structure, or open space that is used by and/or intended to support the residents of an area. The types include social, cultural and recreational facilities (e.g. community centers, libraries, petrol stations, cultural spaces and sports facilities); healthcare (e.g. clinics, ambulance stations and hospitals; education (e.g. nurseries, schools, colleges and universities); governance and institutional services e.g. government administration, police and civil defense and post offices; religious facilities.

Direct Route Indices Method: refers to a technique often used in optimization, logistics, or data management contexts to identify and utilize the most efficient or direct routes. While this specific term might not be universally recognized, it can be related to various methods and approaches in these fields.

District: an area of land that is defined by an administrative boundary, which usually includes several neighborhoods.

District facility: a group of community facilities that is established within a district to provide higher order services than can be found in neighborhood centers. It serves as the focal point for proximate neighborhoods. These facilities are mandated to be provided for every 30,000 to 40,000 residents.

Family toilets: Restrooms designed to accommodate the needs of families with children, equipped with features such as changing tables, additional space, and amenities suitable for caregivers, providing a convenient and family-friendly environment.

Green space: typically refers to areas within the city designated for parks, gardens, or other forms of natural landscapes. These spaces are intended to provide residents and visitors with recreational opportunities, promote environmental sustainability, and enhance the overall quality of urban life.

Human scale: how humans perceive the size of their surroundings and comfort with the elements of the natural and built environment relative to their own size, proportion, and line of sight.

Illuminance: the amount of light (usually measured in lux) falling on a surface. It indicates the brightness of an area due to artificial or natural lighting.

Inclusive family toilet: builds on the concept of a family toilet but places a stronger emphasis on additional features accommodating people needing extra space and facilities for personal care. Larger than the usual family toilet and often include features like a hoist system and sufficient space for a carer or assistant to help.

Ischiatic support refers to ergonomic support for the ischial (seat bone) area. Proper ischiatic support is essential for comfortable seating.

Light Reflectance Value (LRV): LRV is a measurement that quantifies the amount of visible light reflected by a surface. It is expressed as a percentage, with 0% representing absolute black (no reflection) and 100% representing absolute white (full reflection). LRV is commonly used in interior design and architecture to assess the lightness or darkness of paint colors, flooring, and other materials. Higher LRV values indicate lighter colors, while lower values indicate darker colors.

2-10 = Dark paint color

10-20 = Medium-dark paint color

20-40 = Medium-depth paint color

40-55 = Light-medium color

55-72 = Light color

73-81 = Off-white color

82-94 = White paint color

Figure Glossary 1: Light reflectance examples

0	10	20	30	40	50	60	70	80	90	100

Door to Wall	Architrave to Wall	Handles to Door	Door Edge to Face	Skirting to Floor
30	30	15	30	30

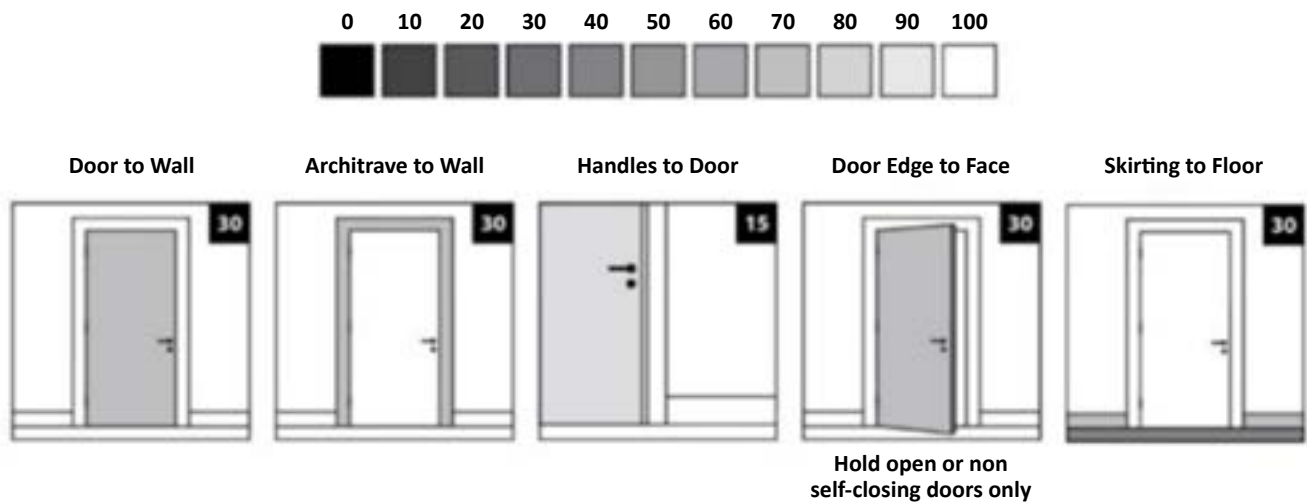**Hold open or non self-closing doors only**

Figure Glossary 2: Examples of light reflectance contrast

LRV Testing Method: Light Reflectance Value (LRV) is tested using an LRV meter (Refer figure Glossary 3), ensuring the meter is calibrated and the surface clean. By positioning the meter probe against the surface, take a reading by pressing the button, and record the LRV value displayed. The LRV is tested following 6 steps which are:

a) **Samples:** The first step is to gather samples of the surface or the material that is tested. The samples are big enough to cover the testing area and represent the texture and finish of the material.

b) **Calibration:** Calibration is a must for the testing equipment to make sure that the measurements are accurate. One of the steps to follow is zeroing the instrument and to ensure that it is specifically ready to measure LRV.

c) **Measurement setup:** The LRV meter is placed in a perpendicular position to the sample's surface. Then a light emits a beam of light onto the surface that measures the light reflected.

d) **Taking measurements:** LRV meter records and calculates the reflected light intensity according to the ratio of reflected light to incident light. The measurement is in percentage, therefor 0% equals a total absorption which is also known as black and 100% is a total reflection or also known as white.

e) **Average reading:** To be more accurate and take into consideration the variety in the surface studied, multiple readings take place at many different points on the surface, and then followed by an averaged to get the final LRV value for the sample studied.

f) **Recording and reporting:** For documentation purposes the LRV values are recorded and measured, these records are the tool that helps making decisions regarding surface's colors, contrasts… in many applications, and more specifically those involving accessibility standards.

Figure Glossary 3: Cromocon LRV meter

Source : https://www.grestec.co.uk/lrv-light-reflectance-values-explained/

Luminance: the brightness of a surface as perceived by the human eye. It is measured in candelas per square meter (cd/m²).

Luminance contrast: the difference in brightness between adjacent surfaces. High luminance contrast enhances visibility and legibility.

Michelson Formula (Contrast Calculation): is used to calculate the contrast between two objects. It quantifies the difference in brightness or luminance between these objects. Specifically, it can be applied to assess the contrast between text and background in visual displays, ensuring readability and legibility.

Medium medical clinic: facilities are mandated to be provided for every 10,000 to 29,999 residents.

Neighborhood: a residential community that is located within an identifiable geographic area. It typically includes essential services and Community Facilities within walking distance of residences.

Neighborhood center: a group of Community Facilities that is established within a neighborhood to provide basic community day-to-day needs for religious, community, convenience retail and recreational services. It serves as the focal point for the local community and attracts frequent trips from within its catchments. These facilities are mandated to be provided for every 5,000 to 10,000 residents.

Non-standard cycles: refer to cycles that are different from traditional designs, structure wise, features or usage. Each type of non-standard bike has different advantages that depends on the usage, terrain and personal preferences as per the following photographs (Figures Glossary from 4 to 9):

Figure Glossary 4: Recumbent bicycle

Figure Glossary 5: Velomobile

Figure Glossary 6: Tandem bicycle

Figure Glossary 7: Folding bicycle

Figure Glossary 8: Handcycle

Figure Glossary 9: Cargo bicycle

Non-standard cycle parking: refer to parking spaces for cycles that are different from traditional designs, structure wise, features or usage. Each type of non-standard bike has different advantages that depends on the usage, terrain and personal preferences as per the following photographs (Figures Glossary 10, 11):

Figure Glossary 10: Glossary Non-standard cycle parking with cycle

Figure Glossary 11: Non-standard cycle parking with handcycle

Orientation and navigation: Orientation refers to how users understand their current position relative to their environment or the system they are using. It's about providing users with the information they need to get a sense of where they are.

Navigation involves the methods and tools users use to move from one location to another, whether in a digital or physical environment. It's about making it easy for users to find their way and access the information or places they need.

Pattern glare refers to the phenomenon where light passing through slits or openings in shadings creates bright patterns of light (Figures Glossary 12, 13, 14). These patterns can be distracting and stressful for individuals, particularly those sensitive to light and the flickering effect caused by such light patterns has the potential to trigger seizures in people with epilepsy.

Figure Glossary 12: Umm Al Emarat Park

Figure Glossary 13: Abu Dhabi - Elevated Crossing

Figure Glossary 14: Shams, Reem Island

Public transportation stop: a designated location where passengers can wait for public transportation vehicles to make a stop and pick up/drop off passengers. It includes a sign or marker indicating the stop. The types of transportation stops are:

- **Bus/tram stops with signposts only:** refers to an open public transportation stop but shaded and has accessible seating options.

- **Bus/tram stops and bus rapid transportation (BRT) with shelters** refers to an enclosed public transportation stop provided with accessible features such as a clear floor space of minimum 900 mm in width and 1500 mm in depth next to the seating options, interior lighting level of at least 50 lux, and clocks provided for public use.

- **Bus, metro and railway stations, ferry, and airport terminals** refers to transportation facilities where passengers embark and disembark, offering amenities like ticket counters, waiting areas, and various shops and services.

Redevelopment in the community refers to the process of renovating or rebuilding infrastructure, buildings, or public spaces with the goal of improving accessibility and inclusion for all. The aim is to create an inclusive environment for people of all abilities. This could involve making modifications such as installing ramps, elevators, wider doorways, tactile paving, accessible restrooms, and other features that allow all users to navigate and use these spaces more easily and independently.

Sahel Qualified Professional: an individual appointed to the role of accessibility lead for the project's design stage. This can be an Accessibility Lead - a professional with recognized training in accessibility, or an Accessibility Consultant, or a person or party accredited by the municipalities. Their responsibility is to ensure that the asset is accessible and usable for all, regardless of their access needs. They are entrusted with overseeing small to medium scale-built environment projects which possess basic to intermediate knowledge of accessibility principles, regulations, and best practices. Their primary responsibility is to ensure that projects are designed and executed to be inclusive and accessible to individuals with diverse needs and abilities. This role encompasses a broad range of tasks, including but not limited to advocating for accessibility considerations during project planning and design stages, conducting accessibility assessments or audits, collaborating with stakeholders to implement accessibility solutions, and providing guidance to project teams on compliance with relevant accessibility standards.

Shading calculations refers to determining how light and shadows interact with surfaces to create realistic visual effects or manage light in practical applications. Shade calculations must be undertaken on the equinox (March 21st) and the summer solstice (June 21st) at 1 PM. The compliant shaded area must be in shade at both the equinox and summer solstice.

As required from **Estidama Pearl Rating System**:

a) Shading calculations can assume that the sun will be directly overhead, to mimic the timing of the summer solstice.
b) All trees included within the shading calculation must be planted between Southeast and Southwest of the area shaded, to ensure comfort during transition months.
c) All shade structures must be designed to provide adequate shade during transition months and must be offset between the Southeast and Southwest of the area shaded.
d) Shade from adjacent buildings and/or structures can be included in calculations.

Significant sources of pollution refers to factors or elements that contribute to environmental pollution, such as emissions from vehicles, industrial processes, or waste disposal.

Sound Level Meter: a tool used to measure and manage noise in an area from a variety of sources, including industrial and transportation noises, and construction work.

Sub-regional centre: a group of Community Facilities that provide significant employment, retail, cultural,

entertainment and specialist services opportunities in a higher density format than found in Neighborhood and District centers. (Facilities such as schools, police and petrol stations that do not need to be within a center or, or, alternatively, are best located outside of centers. These facilities are mandated to be provided for 80,000 residents.

Tactile Walking Surface Indicators (TWSI): raised or textured patterns installed on walking surfaces (such as sidewalks, pedestrian crossings, or train platforms) to provide tactile cues for individuals with visual impairments. TWSIs help guide pedestrians by indicating changes in direction, hazards, or transitions (e.g., approaching a road crossing or a stairway). The patterns are detectable by touch and serve as an essential navigational aid for people who are blind or visually impaired.

Type C unit: units designed to offer an accessible entry, circulation, bathroom or toilet, food preparation and habitable space at entry level. It is a specific type of housing designed or adapted to meet the needs of individuals with disabilities or mobility impairments (typically feature amenities such as wider doorways, accessible entrances, food preparation and habitable space and modified bathrooms to facilitate independent living). At least 20% of the new dwelling unit (but not less than one dwelling unit per type) should be designated for Type C units.

Unified Glare Rating (UGR): shall assess the uncomfortable glare levels originating from light sources. Lighting shall feature glare protection considering users of various statures (e.g., tall people, children, and wheelchair users).

$$UGR = 8 \log \frac{0.25}{L_b} \sum_n \left(L_n^2 \frac{\omega_n}{p_n^2} \right)$$

Figure Glossary 15

Verification report for luminance contrast refers to a document that details the process and results of assessing the contrast between two elements and their background in terms of luminance. This is crucial for ensuring accessibility and readability, especially for individuals with visual impairments. The following processes are applicable to a typical report:

    a) Benchmark Standards and Guidelines
    b) Measurement Tools and Equipment
    c) Testing Procedure
    d) Results with photographic evidence
    e) Analysis and Interpretation
    f) Conclusion
    g) Compliance Status