

The AxESS Purple Book

Standards for Inclusive Marathons and Half Marathons

Introductory Notes & Governance

Scope and Application

This manual establishes the uniform regulatory framework and best-practice guidelines for the planning, logistics, and execution of inclusive marathon and half marathon events. Full adherence to these provisions is strongly encouraged to achieve the highest tier of operational equity and event safety.

The standards codified herein apply to all official racing areas, exposition spaces, and transit corridors under the jurisdiction of the event organization. Compliance requires integrated, cross-departmental execution across race operations, logistics, marketing, and medical teams.

Governance and Adaptation

These standards are subject to ongoing review to accommodate advancements in adaptive equipment technologies and international classification frameworks, as well as practical experience gained from on-course event execution and feedback from athletes. Amendments will be issued via formal revisions published on AxESS' website at **axessinclusion.org**, with the current version number and effective date clearly marked in the document footer.

Who We Are & Core Mission

AxESS - Athletes for Equity & Sustainability in Sport is an international non-profit organization dedicated to ensuring every athlete can claim their space at the starting line. We dismantle the systemic, physical, and financial barriers to global marathons by funding individual journeys and partnering with race organizers to build a world where every course is universally accessible and inclusive by design.

We believe that true inclusion is not passive accommodation or charity, but a cornerstone of athletic integrity that requires intentional, rigorous design. The AxESS vision

fundamentally demands an ecosystem engineered for **all**. Inclusion cannot be piecemeal. A truly equitable starting line ensures that no individual—whether sidelined by physical, visual, or communication barriers, or systemic exclusion of any kind—is made to feel like an asterisk on the results sheet.

Every athlete training for a marathon or half marathon commits the same determination, discipline, and sweat. Their arena must honor that dedication by providing valid, respected, and equal pathways to compete, score, and be celebrated.

Purpose and Mandate of the AxESS Purple Book

Sport, at its highest level, possesses a unique power to mirror the ultimate reaches of human potential. Yet, for too long, the grandest stages of endurance running—our world-class marathons and half marathons—have maintained systemic, physical, and logistical barriers that relegate diverse populations to an afterthought.

The **AxESS Purple Book** is born out of a fundamental necessity to rewrite this narrative. It serves not merely as a suggestion for best practices, but as a definitive blueprint for systemic equity in endurance racing.

The standards codified within this manual are designed to bridge the gap between intent and execution. By establishing uniform, measurable criteria for registration, course safety, inclusive divisions, volunteer training, and finish-line logistics, the AxESS Purple Book provides race organizers with the tools to transition from being "accessible on paper" to being fully equitable in practice.

When we build starting lines that welcome everyone seamlessly, we do not lower the standard of the race—we elevate the standard of the sport. Together, we move forward toward a future where every athlete can chase greatness on equal ground.

Table of Contents

Section 1: Pre-Registration & Registration Standards

1.1 Digital Marketing & Pre-Registration Representation

- 1.1.1 Diverse Visual Representation
- 1.1.2 Accessible Promotional Media
- 1.1.3 Screen Reader & Assistive Technology Compatibility

1.2 Official Athlete Divisions & Categories

- 1.2.1 Universal 2-Tier Architecture Framework
- 1.2.2 Recognized Operational Divisions & Governance Standards

1.3 Specialized Back Bibs: Safety, Field Awareness & Identification

- 1.3.1 Back Bib Operational Profile & Purpose

1.4 Permitted Equipment & Accommodations Framework

- 1.4.1 Authorized Equipment Categories
- 1.4.2 Equipment Exclusion and Safety Transparency

1.5 Event Transparency & Communication

- 1.5.1 Clear Entry Processes
- 1.5.2 Course Risk & Hazard Mapping
- 1.5.3 Dedicated Inclusion Contact Service

1.6 Guides and Support Runners Policy

- 1.6.1 Registration Equity
- 1.6.2 Visual Identification
- 1.6.3 Finisher Medals

1.7 Registration Platform Accessibility & Automated Workflows

- 1.7.1 Screen-Reader Friendly Infrastructure
- 1.7.2 Step-by-Step Guidance
- 1.7.3 The Integrated "Trigger" Field & Conditional Automation Mandate
- 1.7.4 Downstream System Deployments

1.8 Data Protection, Medical Privacy & Athlete Confidentiality

- 1.8.1 Operational Context & Regulatory Rationale
- 1.8.2 Informed & Unbundled Consent (Opt-In)
- 1.8.3 Data Minimization & Purpose Limitation
- 1.8.4 Role-Based Access Control (RBAC)

- 1.8.5 Data Encryption & Storage Security
- 1.8.6 Defined Retention & Mandatory Purging Policy
- 1.8.7 Right to Erasure & Profile Control

Section 2: EXPO & Packet Pickup Standards

2.1 Physical Space Layout & Path of Travel

- 2.1.1 Aisle Width Thresholds
- 2.1.2 Surface and Flooring Integrity
- 2.1.3 Turn Radii Staging

2.2 Ramps and Level Changes

- 2.2.1 Standard Incline Ratios
- 2.2.2 Landing Platforms
- 2.2.3 Edge Protection and Handrails

2.3 Lowered Counters & Interaction Points

- 2.3.1 Accessible Help Desk Counter Height
- 2.3.2 Low-Profile Counters
- 2.3.3 Knee and Toe Clearances

2.4 Accessible Restroom Facilities (EXPO Floor)

- 2.4.1 Dedicated Single-Occupancy/All-Gender Units
- 2.4.2 Turning Space and Grab Bars
- 2.4.3 Fixtures and Operable Parts

2.5 Multi-Sensory Communication & Environment

- 2.5.1 Universal Iconography
- 2.5.2 Deaf & Hard of Hearing Access
- 2.5.3 Sensory De-escalation Zone
- 2.5.4 Tactile/Printed Mapping

2.6 Bib Allocation & Specialized Pick-up Logistics

- 2.6.1 Specialized Identification Back Bibs
- 2.6.2 Pre-Packed Kit Integration
- 2.6.3 On-Site Help Desk Backstock
- 2.6.4 Athlete Choice
- 2.6.5 Priority Pickup Logistics

2.7 Urgent Restroom Access & "Can't Wait" Credentials

Section 3: Race Day & Start Line Experience

3.1 Transit & Infrastructure Logistics

- 3.1.1 Accessible Shuttle/Transit Mandate
- 3.1.2 Adaptive Equipment Transport Capacity

3.2 Site Accessibility & Staging Facilities

- 3.2.1 Accessible Staging (AWD/Adaptive Athletes Start Tent)
- 3.2.2 Accessible Toilets

3.3 Specialized Gear & Medical Device Management

- 3.3.1 Dedicated Priority Baggage Drop
- 3.3.2 Point-to-Point Medical Device & High-Value Product Transit

3.4 Corral Accessibility & Management

- 3.4.1 Barrier-Free Entry Points
- 3.4.2 Staggered Starting Sequences

3.5 Multi-Sensory Communication & Field Awareness

- 3.5.1 Closed-Captioned Field Screens
- 3.5.2 Pre-Start Field Briefing
- 3.5.3 Multi-Sensory Start Signals

Section 4: On-Course Standards & Safety

4.1 Mechanical, Infrastructure & Aid Support

- 4.1.1 Minimum Turn Radii
- 4.1.2 Tangential Barricading (The "Apex Barrier Rule")
- 4.1.3 Surface Preparation at Apexes

4.2 On-Course Hydration & Aid Station Mechanics

- 4.2.1 Physical Infrastructure & Table Layout
- 4.2.2 Handoff Mechanics & Volunteer Execution
- 4.2.3 Spills and Debris Management

4.3 General Infrastructure & Support

- 4.3.1 On-Course Mobile Mechanics
- 4.3.2 Course Hazard Markings
- 4.3.3 Accessible Restrooms

4.4 Personnel & Field Awareness

- 4.4.1 The Master Security & Support Roster

- 4.4.2 Volunteer Action Protocols
- 4.4.3 Neurodiverse/Cognitive Support
- 4.4.4 Mechanical Failure Response

Section 5: Finish Line & Post-Race Experience

5.1 Finish Line Chute Flow & Immediate Assistance

- 5.1.1 Dedicated Chute Flow
- 5.1.2 Specialized Post-Race Personnel
- 5.1.3 Accessible Toilets

5.2 Post-Race Infrastructure & Recovery

- 5.2.1 Accessible Layouts
- 5.2.2 AWD/Adaptive Athletes Post-Race Tent & Adaptive Reunion Area
- 5.2.3 Proximate Baggage & Medical Priority Release

5.3 Ceremonies & Equal Recognition

- 5.3.1 Equitable Award Ceremonies
- 5.3.2 Podium Accessibility

Section 1: Pre-Registration & Registration Standards

1.1 Digital Marketing & Pre-Registration Representation

1.1.1 Diverse Visual Representation

Event webpages, social media channels, and promotional materials should actively feature diverse and inclusive imagery (e.g., Athletes with disabilities - AWD), establishing a culture of belonging from the first point of contact.

1.1.2 Accessible Promotional Media

All promotional, informational, and preview videos published across event platforms must include closed captioning to remain accessible to deaf and hard-of-hearing athletes.

1.1.3 Screen Reader & Assistive Technology Compatibility

To ensure equitable access for blind, low vision and neurodivergent athletes, all public-facing digital assets—including primary race websites, registration portals, and digital event guides—must comply with WCAG 2.1 Level AA standards, ensuring essential race information is machine-readable HTML and never embedded solely within images or un-rasterized PDFs.

1.2 Official Athlete Divisions & Categories

To ensure equitable competition and full participation across all athlete groups, events must formally establish and publish administrative and competitive categories.

1.2.1 Universal 2-Tier Architecture Framework

To govern these categories effectively, events must adopt a Universal 2-Tier Architecture comprising **Tier 1 (Access & Safety Accommodations)** and **Tier 2 (Official Competitive Divisions)**.

Tier 1 operates entirely on self-identification and serves as the default, automatic baseline operational state for any athlete registering under a recognized adaptive, inclusion, or accessibility division. It requires zero medical documentation or classification proof.

Registration automatically unlocks individual-level support protocols—including tailored high-visibility back bibs (see §1.3 and §2.6), customized operations routing, priority logistics, and individualized gear or medical transit.

Tier 2 applies exclusively to athletes seeking official division timing, ranking, prize money, and podium awards. With the exception of the Non-Binary Division (which operates under an Identity Exception), Tier 2 requires verified classification or recognized medical or audiometric documentation submitted prior to the event cutoff deadline. If an athlete does not submit or pass Tier 2 verification, events must automatically maintain them in Tier 1 so they retain all individual safety accommodations, field identification, and operational access without competing for division placement.

1.2.2 Recognized Operational Divisions & Governance Standards

Events must recognize, support, and execute operations for—at a minimum—the five operational divisions listed below, governing competitive eligibility under the 2-Tier Architecture:

1. Wheelchair & Handcycle Division. Established to support both seated pushrim and crank-driven athletes. To achieve Tier 2 competitive standing, official placement, and award eligibility, participants must strictly adhere to International Paralympic Committee (IPC) and World Para Athletics technical rules regarding equipment specifications and underlying physical impairments.

2. Para Divisions (Classes T11–T64). Structured across five core impairment groups evaluated in accordance with the IPC Classification Code. These encompass **Visual Impairments (Classes T11–T13)**, ranging from T11 athletes requiring a tethered guide and light-proof glasses to T13 athletes with limited functional vision; **Intellectual Impairments (Class T20)** for athletes meeting standard cognitive and adaptive criteria; **Coordination Impairments (Classes T35–T38)** for ambulatory athletes with hypertonia, ataxia, or athetosis; **Upper Limb Impairments (Classes T45–T46)** for unilateral or bilateral

upper limb amputations or structural deficiencies; and **Lower Limb Impairments (Classes T61–T64)** for ambulatory athletes competing with prostheses. To qualify for Tier 2 competitive ranking in any Para Division, participants must submit a valid national or international Para Athletics classification card or a recognized medical classification record corresponding to their specific impairment group prior to the event cutoff.

3. Deaf Division (Deaf or Hard of Hearing). Dedicated to deaf and hard-of-hearing athletes. Aligned with the International Committee of Sports for the Deaf (ICSD/Deaflympics) standards, Tier 2 competitive eligibility requires participants to submit official audiogram documentation verifying a pure-tone average hearing loss of at least 55 dB in the better ear across 500 Hz, 1000 Hz, and 2000 Hz.

4. Cognitive & Neurodiverse Divisions. Designed as explicit operational categories serving athletes with Down syndrome, autism, or other developmental conditions. For Tier 2 competitive standing, participants must provide official medical or administrative documentation issued by Virtus, INAS, Special Olympics, or an equivalent national governing body for intellectual impairments.

5. Non-Binary Division. Structured as a dedicated competition and scoring category with equal prestige, official ranking, and awards, ensuring athletes of all gender identities are structurally included. As a mandatory **Identity Exception** to standard Tier 2 verification rules, full competitive status, official timing, podium placement, and prize eligibility in this division are granted strictly based on personal self-identification during registration—without permitting medical, hormonal, or administrative verification.

In addition to the five categories listed above, race organizers are encouraged to establish additional inclusion categories, age brackets, or adaptive sub-classes above and beyond this minimum list to reflect regional demographics and local athletic demand, provided any additional categories adhere strictly to the overarching equity and privacy standards codified herein.

1.3 Specialized Back Bibs: Safety, Field Awareness & Identification

Race organizers must establish a standardized high-visibility back bib system for adaptive athletes, guides, and athletes with hidden disabilities (such as deaf or blind runners).

1.3.1 Back Bib Operational Profile & Purpose

A. Primary Function. The specialized back bib serves strictly as a safety, field awareness, and non-verbal communication indicator. It alerts trailing runners, course marshals, volunteers, and emergency medical personnel to an athlete's specific field needs. It is not a competitive division marker or timing bib.

B. Placement & Wear. The back bib must be worn strictly on the back of the torso. It operates secondary to the primary timing bib, which remains affixed to the front chest.

C. Visual & Technical Specification:

- **Color:** High-visibility with heavy black, bold, ultra-readable typography.
- **Dimensions:** Minimum 20 cm x 15 cm (8 in x 6 in) to ensure legibility from a distance of at least 10 meters (33 feet).
- **Language & Terminology:** To ensure broad international and local field comprehension, text on the back bib should ideally be printed in English, or dual-printed in both English and the local host language (e.g., DEAF / ATHLÈTE SOURD/E or BLIND / PERSONA CIEGA). Standardized single-language options must prioritize clear, universal English terminology (e.g., DEAF, BLIND, GUIDE, DUO TEAM).

D. Automated Allocation. Selecting a corresponding Tier 1 accessibility profile during registration (see §1.2, §1.7, and §2.6) should automatically trigger the back bib being pre-packed into the athlete's race kit at the warehouse/fulfillment level.

1.4 Permitted Equipment & Accommodations Framework

Separate from competition divisions, the event must comprehensively outline the rules, safety guidelines, and entry pathways for adaptive equipment. Organizers must clearly and explicitly define which equipment types are permitted, along with their precise

mechanical specifications, across all athlete-facing platforms—including the registration platform, the official race website, and the formal event rules.

1.4.1 Authorized Equipment Categories

Events should structurally account for a wide range of adaptive hardware, including but not limited to:

- Pushrim wheelchairs
- Handcycles
- Duos (assisted chairs)
- Adaptive recumbent cycles
- Wheelchairs outfitted with a front freewheel
- Ambulatory equipment (crutches, walkers, etc.)

1.4.2 Equipment Exclusion and Safety Transparency

If an event chooses to exclude any of the equipment categories listed above from the field, organizers must explicitly state the exact reasoning for the exclusion on the main event webpage and within the official rules. This exclusion should not be arbitrary; it should be backed by a transparent, objective rationale, such as specific course conditions, structural hazards, steep camber/descents, or verified participant safety limitations unique to that venue's layout.

1.5 Event Transparency & Communication

1.5.1 Clear Entry Processes

Events should provide absolute transparency across all public-facing communication channels prior to opening registration. Rather than publishing generic race guidelines, events should have an explicit, detailed breakdown of all entry pathways—including lottery drawings, time qualifications, charity allocations, and guaranteed versus non-guaranteed entry criteria—alongside firm registration windows and cutoff deadlines. This

ensures that athletes requiring additional travel logistics or accommodation planning can navigate the entry process on an equal footing.

1.5.2 Course Risk & Hazard Mapping

To guarantee physical safety and informed preparation, events should have a specialized map highlighting course features that pose distinct safety or navigational challenges—including but not limited to steep elevation shifts, severe camber, cobblestones, gratings, pinch points, overhead obstructions, or tight turns—specifically evaluated for adaptive equipment, wheelchair athletes, and guided blind or low vision pairs.

1.5.3 Dedicated Inclusion Contact Service

Events should provide a direct, staffed customer service channel (email or helpline) solely dedicated to answering questions regarding accessibility, accommodations, and inclusion policies.

1.6 Guides and Support Runners Policy

1.6.1 Registration Equity

Recognizing that sighted guides, support runners, and tether-runners are essential safety partners rather than optional companion entrants, events must have a codified, published Registration Equity Policy for all support personnel.

Events should provide official guides and tether-runners serving athletes with disabilities (AWD) with entry either completely free of charge or at a nominal, deeply discounted administrative rate. Events must structure this policy to account for the specific technical demands of the course, ensuring that athletes requiring multiple guides or rotation pairs across long-distance events can register their full support team without facing punitive financial or logistical barriers.

1.6.2 Visual Identification

In addition to the high-visibility back bib clearly marked GUIDE (see §1.3, §2.6, and §5.1)

across the back of the torso to alert trailing runners and course marshals, guides should be issued matching or specifically designated bib numbers that mirror their athlete's registration for clear identification by race officials and course volunteers.

1.6.3 Finisher Medals

Any official guide or tether-runner who navigates the full distance of the marathon or half marathon alongside their athlete—without utilizing a guide exchange zone—should be awarded an official finisher medal at the finish line.

1.6.4 Official Timing and Results

Full-distance guides should receive an official finish time and be listed transparently in the event's published results database. Their listing should be structurally linked to the primary athlete's profile (e.g., "John Doe [Athlete] / Jane Smith [Guide]") to permanently record their joint athletic achievement.

1.7 Registration Platform Accessibility & Automated Workflows

1.7.1 Screen-Reader Friendly Infrastructure

The registration platform software must meet modern digital accessibility standards, ensuring compatibility with screen readers and assistive technologies.

1.7.2 Step-by-Step Guidance

The platform must provide a clear, intuitive, and uncomplicated guide to assist athletes seamlessly through the registration process.

1.7.3 The Integrated "Trigger" Field & Conditional Automation Mandate

To maximize operational and data readiness, the registration platform should feature a mandatory, high-level data field question: "Are you an athlete with a disability or have any specific medical/logistical need?" Selecting "Yes" to this primary trigger should automatically open a secondary selection menu containing the following standardized profiles:

- Wheelchair Division (Pushrim)
- Handcycle Division
- Ambulatory Para-Athlete (Lower/Upper Limb, Coordination)
- Visual Impairment / Blind
- Deaf or Hard of Hearing
- Intellectual / Cognitive Impairment
- Assisted Chair / Duo Team
- Medical Profile (e.g., Type 1 Diabetes, Severe Allergies)
- Urgent Toilet Access (Requires Medical Verification; see §2.6.1)
- Other Specific Needs (Activates an open-text comment box)

1.7.4 Downstream System Deployments

Upon the selection of any specific profile above, the platform should instantly deploy the following downstream logistical systems:

- **Pre-Packed Kit Integration:** The platform should automatically tag the athlete's database profile to integrate specialized assets directly into their standard race kit order at the fulfillment warehouse. For example, selecting the Deaf or Hard of Hearing profile should instantly trigger the automatic pre-packing of a specialized "Deaf Runner" back bib into the primary race bag, completely eliminating the need for separate pick-up lines or secondary processing desks at the EXPO.
- **Targeted Digital Communication Journeys:** The selection should instantly enroll the athlete into a dedicated, automated email sequence. This system must deliver tailored logistics instructions—including screen-reader-optimized PDFs and preview videos outfitted with open/closed captioning—detailing expo navigation, medical device transit protocols, start line staging, and official inclusion events.
- **Universal Open-Text Capturing:** Regardless of the specific profile selected from the menu (including the "Other Specific Need" option), the platform should dynamically generate a dedicated open-text comment box. This ensures that every athlete has the

immediate opportunity to insert precise logistical, environmental, or medical requirements—whether directly linked to a declared disability, an intersection of needs, or any other unique operational requirement. This text should be piped directly into the athlete's master registration file.

- **Real-Time Data Readiness:** The platform should feed all profile selections and open-text responses directly into a live analytics dashboard for Race Operations, Logistics, and Medical teams. This ensures the organization knows well before the EXPO begins not only the exact number of athletes requiring specific accommodations, tracking pouches, or specialized course personnel, but also the specific clinical needs, medical conditions, and logistical requirements necessary to ensure comprehensive on-course preparation.

1.8 Data Protection, Medical Privacy & Athlete Confidentiality

1.8.1 Operational Context & Regulatory Rationale

In executing the registration workflows, specialized profiling triggers, open-text accommodation fields, and automated downstream distribution logistics established across §§ 1.2, 1.5, 1.6 and 1.7, race organizers inherently collect, process, and store highly sensitive personal information.

In consideration of the particularly sensitive nature of this information and the operational scope required for field deployment (such as feeding live analytics dashboards for Race Ops, Medical Command, and Logistics), race organizers and platform providers must enforce rigorous data protection, privacy-by-design, and confidentiality safeguards.

1.8.2 Informed & Unbundled Consent (Opt-In)

The collection of disability categories, secondary functional profiles, medical conditions, and logistical accommodation needs must rely on explicit, voluntary opt-in consent.

Opting in or out of sharing detailed profile data must not restrict an athlete from completing general event registration.

1.8.3 Data Minimization & Purpose Limitation

Organizers must collect only the minimum personal data strictly necessary to fulfill field operations, course safety, medical preparedness, and Tier 2 classification verification.

Profiling data captured during registration must never be repurposed for external commercial marketing, third-party sponsors, or public display without separate, explicit consent.

1.8.4 Role-Based Access Control (RBAC)

Access to the confidential operational roster—containing detailed disability types, medical conditions, and open-text logistical requests—must be strictly restricted under Role-Based Access Control (RBAC).

Only authorized Race Operations personnel, Medical Command, and designated Key Inclusion Staff may access sensitive fields. General event staff, marshals, and volunteers must only receive operational summary tags (e.g., bib numbers linked to specific aid station fluid needs) rather than full athlete medical files.

1.8.5 Data Encryption & Storage Security

Sensitive athlete profiles and uploaded Tier 2 medical/audiogram documents must be encrypted both in transit (using TLS 1.3 or higher) and at rest (using AES-256 encryption). Physical documents collected on-site (e.g., hardcopy audiograms or classification cards presented at the EXPO Help Desk) must be kept in secure, locked storage and digitized into encrypted storage immediately.

1.8.6 Defined Retention & Mandatory Purging Policy

To minimize long-term data liability and prevent unlawful data hoarding, race organizers must enforce a mandatory post-race retention schedule.

All sensitive medical notes, uploaded audiograms/classification cards, and specific open-text health profiles must be permanently deleted or anonymized **within 30 days** following the completion of the race edition.

Anonymized, aggregated statistical data (e.g., total count of Deaf Division participants or wheelchair athletes) may be retained for longitudinal inclusion reporting and operational planning.

1.8.7 Right to Erasure & Profile Control

Athletes retain the right to request access to, modification of, or complete deletion of their sensitive profiling data at any point prior to or following the event via a dedicated customer support channel.

Section 2: EXPO & Packet Pickup Standards

2.1 Physical Space Layout & Path of Travel

2.1.1 Aisle Width Thresholds

Minimum thoroughfare aisle widths must be maintained at a minimum of 90 cm (36 in). Main arterial pathways through high-traffic sponsor zones must expand to 150 cm (60 in) to allow two racing chairs or adaptive equipment frames to pass each other comfortably.

2.1.2 Surface and Flooring Integrity

All flooring must be firm, stable, and slip-resistant. Thick-pile carpeting, loose synthetic turf, or exposed wiring channels without low-profile rubber cord protectors (maximum slope 1:12) are strictly prohibited across the athlete path of travel.

2.1.3 Turn Radii Staging

Any architectural layout or queuing turn (such as lines for packet pickup) must provide an unobstructed turning space of at least 150 cm × 150 cm (60 in × 60 in) to accommodate the turning radius of a standard racing chair.

2.2 Ramps and Level Changes

2.2.1 Standard Incline Ratios

Where the natural venue layout requires a change in floor levels, structural ramps must be installed. Ramps must have a maximum slope profile of 1:12 (an 8.33% incline) as a steeper rise creates an unsafe tipping hazard for manual wheelchair users.

2.2.2 Landing Platforms

Ramps must feature level landing zones (minimum 150 cm × 150 cm or 60 in × 60 in) at both the top and bottom, and every 9 meters (30 feet) of horizontal run, to allow athletes to rest or adjust their grip safely.

2.2.3 Edge Protection and Handrails

Any ramp with a rise greater than 15 cm (6 in) must feature continuous handrails on both sides (positioned between 86 cm and 96 cm or 34 in to 38 in above the ramp surface) and a solid edge barrier or raised curb to prevent wheels from slipping off the structure.

2.3 Lowered Counters & Interaction Points

2.3.1 Accessible Help Desk Counter Height

The EXPO Help Desk should feature a lowered counter height of 80 cm (32 in) with clear knee clearance for wheelchair users.

2.3.2 Low-Profile Counters

General packet pickup counters should similarly feature low-profile counter heights (80 cm or 32 in).

2.3.3 Knee and Toe Clearances

Lowered counters should provide a clear knee recess extending at least 48 cm (19 in) deep and 76 cm (30 in) wide under the counter, ensuring athletes in chairs can roll forward completely rather than being forced to interact sideways.

2.4 Accessible Restroom Facilities (EXPO Floor)

2.4.1 Dedicated Single-Occupancy/All-Gender Units

In addition to standard stalls, the EXPO floor should provide clear, signposted single-occupancy, all-gender accessible restrooms. This ensures non-binary athletes are structurally affirmed and provides necessary space for athletes who travel with a caregiver or guide of a different gender.

2.4.2 Turning Space and Grab Bars

Internal restroom dimensions should feature a clear turning circle of 150 cm (60 in).

Horizontal grab bars must be securely anchored on both the back wall and the side wall adjacent to the toilet.

2.4.3 Fixtures and Operable Parts

Sinks, soap dispensers, and paper towel units should be mounted no higher than 110 cm (44 in) from the floor and must feature lever-operated or automatic proximity sensors—requiring no tight grasping or twisting of the wrist.

2.5 Multi-Sensory Communication & Environment

2.5.1 Universal Iconography

Events must provide universal, accessible signage throughout the EXPO using clear, high-contrast iconography. All directional and informational signage must feature lettering that contrasts sharply with its background (e.g., white text on dark blue background) to ensure clear legibility for low vision athletes and participants navigating dense crowds.

2.5.2 Deaf & Hard of Hearing Access

To guarantee equal access to technical information, events must have certified sign language interpreters present during all major EXPO presentations, panel discussions, and mandatory athlete briefings. Additionally, events must provide visual and textual communication tools—or dedicated interpreters—stationed directly at primary help desks and packet pickup counters to assist deaf and hard-of-hearing participants.

2.5.3 Sensory De-escalation Zone

Recognizing that large sports expos can become overwhelming environments, events should provide a designated Sensory De-escalation Zone situated away from the main floor. This space must feature lowered lighting, minimal noise levels, and comfortable seating to prevent sensory overload for neurodivergent or autistic individuals.

2.5.4 Tactile/Printed Mapping

Events should have physical, printed versions of the Course Risk & Hazard Map (see §1.5)—including high-contrast and tactile variations—readily available for pickup at the Help Desk.

2.6 Bib Allocation & Specialized Pick-up Logistics

2.6.1 Specialized Identification Back Bibs

Events must provide dedicated high-visibility back bibs for deaf and blind athletes to establish spatial awareness and safety from trailing runners on the course. This provision strictly extends to all official guides, support runners, and tether-runners, who must be issued designated identification back bibs (e.g., "GUIDE" or "SUPPORT"). This ensures immediate visual identification by race marshals, surrounding participants, and timing officials across the entire field of play.

2.6.2 Pre-Packed Kit Integration

Warehousing and kit-packing systems should cross-reference the Tier 1 trigger database (see §1.2, §1.3, §1.6, and §1.7) to ensure high-visibility back bibs are pre-packed into designated athlete packets prior to EXPO opening.

2.6.3 On-Site Help Desk Backstock

The EXPO Help Desk should maintain an unassigned inventory of high-visibility back bibs for late registrations, guide replacements, or athletes who opt-in on-site.

2.6.4 Athlete Choice

Wearing the high-visibility back bib is strongly recommended for course safety, but remains at the ultimate discretion of the athlete. Organizers should inform athletes of its safety purpose during packet pickup without making it a mandatory condition of participation.

2.6.5 Priority Pickup Logistics

Events should provide Priority Pickup Logistics—including dedicated, low-barrier pickup lanes or designated low-density time windows—for adaptive athletes to eliminate prolonged standing, minimize crowd friction, and ensure seamless packet retrieval.

2.7 Urgent Restroom Access & "Can't Wait" Credentials

To accommodate participants with non-visible, urgent medical conditions—such as Inflammatory Bowel Disease, Crohn’s disease, ulcerative colitis, stoma care, or neurogenic bladder conditions—race organizers should establish a pre-verified protocol for issuing priority restroom credentials. For participants who complete verification during digital registration, the "Can't Wait" Card/Bracelet should be automatically included in their official runner packet. Participants who do not pre-verify digitally should be able to obtain a Card/Bracelet on-site at the EXPO by presenting an official national medical card or a physician's note. To protect athlete dignity and data privacy, EXPO staff shall perform only a visual inspection of external documents without retaining, photocopying, or logging medical records, and specific health diagnoses must never be printed on the race bib itself. Start corral marshals, venue security, volunteers and post-finish staff must be explicitly briefed to grant immediate priority access to designated accessible toilets at pre-race start corrals and post-finish recovery zones.

Section 3: Race Day & Start Line Experience

3.1 Transit & Infrastructure Logistics

3.1.1 Accessible Shuttle/Transit Mandate

When official event transportation (shuttles, buses, or trains) is provided to transport the general field to the start line, the organization should provide equivalent, fully accessible vehicles equipped with hydraulic lifts or low-profile ramps. Beyond physical access, transit operations should be universally user-friendly and responsive to individual athlete needs: when event registration records indicate that a deaf, hard-of-hearing, blind, low vision or neurodivergent participant is using official transportation, operators must actively adapt service—utilizing visual boarding cues, digital announcements, dedicated marshals, or direct text notifications—to ensure seamless, stress-free boarding and transit.

3.1.2 Adaptive Equipment Transport Capacity

Transit vehicles dedicated to the inclusion field must be configured to safely secure both the athlete and their specialized equipment (e.g., racing chairs, handcycles) without requiring the breakdown of mechanical frames, which risks altering precision alignment settings.

3.2 Site Accessibility & Staging Facilities

3.2.1 Accessible Staging (AWD/Adaptive Athletes Start Tent)

A dedicated, climate-controlled staging area should be positioned near the starting corrals. This area must feature step-free access and be equipped with accessible portable toilets.

3.2.2 Accessible Toilets

Race organizers must deploy accessible, single-occupancy restrooms displaying the International Symbol of Access must be integrated directly into primary toilet banks and

positioned inside or immediately adjacent to all corral entry points, serving adaptive athletes, support guides, and pre-verified "Can't Wait" Card/Bracelet holders.

All accessible restrooms must feature ground-level zero-step entry or stable, non-slip ramps with a maximum slope profile of 1:12, an interior turning space of at least 150 cm (60 in) to ensure full wheelchair and handcycle maneuverability, and secure interior grab bars.

3.3 Specialized Gear & Medical Device Management

3.3.1 Dedicated Priority Baggage Drop

A specialized baggage drop-off zone should be situated immediately adjacent to the AWD/Adaptive Athletes Start Tent, minimizing the physical distance ambulatory or blind/low vision athletes must travel to clear their gear.

3.3.2 Point-to-Point Medical Device & High-Value Product Transit

For point-to-point courses where the start and finish lines are in different geographic locations, a dedicated, secure vehicle must be stationed at the start line to collect medical assets. This transit system should apply to large equipment (such as daily-use wheelchairs and prosthetics) and explicitly to smaller, high-value medical devices and perishable products (such as insulin pump cases, CGM readers, prescription medication, temperature-controlled cooling wallets, or specific dietary medical items) that athletes rely on right up until the start sequence—including for last-minute applications or injections (e.g., Type 1 Diabetes management).

Organizers should provide heavy-duty, clear, weather-resistant zip-top pouches uniquely color-coded for medical transit. These pouches should be labeled with the athlete's exact bib number to securely transport small items, ensuring they do not get lost, damaged, or wasted in general transit.

The intake area for this medical cargo must be equipped with antimicrobial hand-washing stations or medical-grade sanitizing wipes, surface disinfectants, and a clearly labeled,

rigid biohazard sharps container to support safe, hygienic disposal of needles or syringes used immediately prior to the gear handoff.

This specialized medical cargo should be prioritized for immediate, secure transport to a designated tent located directly at the finish line chute, allowing athletes to reclaim their critical health gear immediately upon crossing the finish line.

3.4 Corral Accessibility & Management

3.4.1 Barrier-Free Entry Points

Starting corrals should feature designated, wide-clearance entry gates (minimum 90 cm or 36 in) that completely bypass traditional steel crowd-control barricades, tight chicanes, or steep curb drops.

3.4.2 Staggered Starting Sequences

To ensure maximum on-course safety and prevent high-speed collisions, wheeled division (handcycles and pushrim wheelchairs) must be launched in a staggered sequence—ideally 15 to 60 minutes prior to the elite ambulatory, depending on overall participant numbers.

3.5 Multi-Sensory Communication & Field Awareness

3.5.1 Closed-Captioned Field Screens

All digital screens surrounding the start line and staging corrals should display real-time closed captioning in English and other applicable regional languages for all major announcements, with strict priority given to critical security, safety, or timing adjustments.

3.5.2 Pre-Start Field Briefing

Prior to releasing the mass fields, the race announcer should deliver a mandatory, standardized course-sharing briefing to the crowd. This briefing should remind runners to maintain lateral space, respect the passing speed of racing chairs, and follow the

instructions of duo teams, as well as blind/low vision runners and their guides¹.

3.5.3 Multi-Sensory Start Signals

The official race start should be communicated via synchronized multi-sensory cues. Alongside the traditional starter pistol or horn, organizers should utilize high-visibility countdown clocks, flashing lights, or waved flags to ensure deaf, hard-of-hearing, or blind and low vision athletes receive the start signal simultaneously.

¹ **Recommended Briefing Text Note:** The following script is highly recommended for public address systems:

"Attention runners: We are proud to share our course today with a diverse field of athletes, including our adaptive, wheeled, blind and low vision, and deaf and hard-of-hearing divisions. Please stay alert to your surroundings at all times. When passing, yield the racing line, call out your position clearly, and maintain safe lateral space. Because our deaf and hard-of-hearing athletes rely on visual cues, ensure you pass with clear line of sight. If communicating in staging areas or aid stations, face them directly so your expressions are visible. Let's ensure a safe, competitive, and respectful race for everyone today."

In any case, the live announcement should be strictly aligned with the principles outlined above. Furthermore, this briefing must be delivered in English, the local regional language, and all other applicable languages in which general event announcements are broadcast to the field.

Section 4: On-Course Standards & Safety

4.1 Mechanical, Infrastructure & Aid Support

Sharp turns, hairpin corners, and sudden course deviations pose severe safety risks. Racing chairs require wide, sweeping arcs to maintain stability, while blind and low vision runners need predictable pacing and clear lateral space.

4.1.1 Minimum Turn Radii

Any turn exceeding 45 degrees on the course should ideally maintain a minimum radius of 5 meters (16.4 feet). For mandatory sharp or 90-degree turns, the racing line must be kept entirely clear of tight barriers, standard traffic cones, or encroaching spectator crowds.

4.1.1 Tangential Barricading (The "Apex Barrier Rule")

Race organizers must replace flexible plastic cones at critical turn apexes with solid, interlocked metal barricades or continuous plastic water-filled barriers. This prevents an adaptive athlete's equipment from clipping a loose cone, which can cause instantaneous flips or collisions with trailing runners.

4.1.1 Surface Preparation at Apexes

The apex of every major turn must be swept clean of gravel, road salt, water accumulation, or discarded hydration cups by a dedicated clean-up crew 15 minutes before the arrival of the lead adaptive athletes.

4.2 On-Course Hydration & Aid Station Mechanics

To guarantee that all participants can hydrate safely and efficiently without disrupting their momentum or compromising field safety, every official aid station should adhere to the following physical and volunteer protocols:

1. Physical Infrastructure & Table Layout

A. The "Post-Elite / Pre-Mass" Placement Rule. At any aid station utilizing a single

contiguous layout, the dedicated inclusion table for adaptive athletes and special needs profiles should be strategically placed immediately after the elite athlete tables, but a minimum of 5 meters (16.4 feet) before the first general population table. This positioning ensures that adaptive athletes can access fluids seamlessly before the high-density mass field arrives, while completely preserving the integrity of the elite field's technical zone.

B. Standardized Table Heights. While general tables stand at standard heights, the dedicated inclusion table should feature a low-profile section measuring between 76 cm and 86 cm (30–34 in) from the ground. This allows athletes sitting low in racing chairs or handcycles to reach fluid containers without straining upward.

C. Knee Clearance and Approach. The area directly in front of and beneath the inclusion table should be completely clear of supply boxes, trash receptacles, or structural bracing, allowing a parallel or forward wheel approach.

2. Handoff Mechanics & Volunteer Execution

A. The Proactive Verbal Handoff. Volunteers stationed at the inclusion table should be explicitly trained not to stand silently holding a cup. When a blind and low vision athlete and their guide approach, the volunteer must clearly and loudly call out the fluid type and the physical position relative to the runner (e.g., "Water at your right, waist high!").

B. The Flat-Hand Palm Technique. For athletes moving on wheels, volunteers should never try to hand off a cup by gripping the rim, as this frequently causes spills at high speeds. Instead, volunteers should place the base of the cup flat on their open, extended palm. This allows the athlete to easily sweep and scoop the cup from the volunteer's hand as they roll past.

C. Squeeze-Top Bottles vs. Open Cups. For handcyclists—who cannot easily hold an open cup while simultaneously cranking—the inclusion table should stock squeeze-top sports bottles or cups outfitted with flexible silicone straws, which are far easier to grab and secure dynamically.

3. Spills and Debris Management

A. The Splatter Mitigation Zone. Wet pavement, crushed paper cups, and discarded gel packets create an immediate traction hazard for pushrim gloves and narrow racing tires. The ground surrounding the inclusion table must be continuously swept by a designated volunteer.

B. High-Contrast Trash Chutes. Large, high-visibility bins with wide-mouth openings should be placed 10, 20, and 30 meters (33, 66 and 99 feet) after the inclusion table, allowing athletes to discard bottles safely clear of the active racing line.

4.3 General Infrastructure & Support

4.3.1 On-Course Mobile Mechanics

Dedicated mobile mechanics should be deployed on the course to handle mechanical failures or adjustments specifically for participants on wheels.

4.3.2 Course Hazard Markings

Events must provide high-visibility hazard mitigation and clear physical markings across all active racing lines. Physical hazards—including train and tram tracks, drain grates, bollards, traffic posts, potholes, and speed bumps—must be clearly highlighted using high-contrast signage, safety flags, high-visibility paint, or large-font directional indicators, or a combination of these markers as necessary to maximize visual clarity from a distance. Where physical hazards cannot be completely removed or bypassed, events must deploy heavy-duty rubber matting, flush asphalt patching, or adaptive ramps over the surface to eliminate wheel-trapping gaps and tripping points for blind and low vision runners and guided pairs.

4.3.2 Accessible Restrooms

Events must provide accessible, single-occupancy portable restrooms across the course at regular intervals. These step-free, wide-entry units—equipped with internal grab bars and ground-level entry ramps—must be integrated directly into designated aid stations at

regular intervals, ensuring that adaptive athletes can utilize facilities without departing from the secured course route. On-course accessible restrooms placed on unpaved shoulders, grass, or parkways must be connected directly to the solid road surface using heavy-duty, rollable, non-slip matting to guarantee smooth, unassisted wheelchair roll-in. Portable units must feature flat, flush thresholds or ramps not exceeding a 1:12 grade, along with an interior turning clearance of at least 150 cm and horizontal grab bars.

4.4 Personnel & Field Awareness

4.4.1 The Master Security & Support Roster

Prior to race day, the Dedicated Inclusion Contact Service should generate a confidential, cross-referenced roster for use by Course Marshals, Medical Directors, and Aid Station Captains. This roster maps specific athlete bib numbers to critical health or equipment needs without violating medical privacy standards.

Bib Number	Division / Class	Support Type Required	Critical Medical / On-Course Note
1000	Para T11 (Vision)	Dual Tethered Guides	Guide exchange at Km 21.097 / Mile 13.1
2000	Cognitive (Autism)	Support Runner	Hypersensitive to loud audio cues
5000	Deaf	-	Balance/Vestibular disorder

4.4.2 Visual Impairment Protocols

Volunteers at aid stations should be explicitly trained not to hold water cups out silently. For T11/T12 athletes, volunteers or guides must verbally state position and handoff timing (e.g., "Water at 2 o'clock, three steps").

4.4.3 Neurodiverse/Cognitive Support

Course marshals positioned near loud entertainment zones (e.g., cheer squads, live bands) should be briefed to monitor athletes who may experience sensory overload, ensuring a clear path through high-stimulus corridors.

4.4.4 Mechanical Failure Response

If a participant on wheels experiences a structural failure (flat tire, broken tether, loose axle), course marshals should immediately radio the Mobile On-Course Mechanics with the athlete's exact mile marker, prioritizing swift, safe extraction or repair over general field flow.

Section 5: Finish Line & Post-Race Experience

5.1 Finish Line Chute Flow & Immediate Assistance

5.1.1 Dedicated Chute Flow

A clear, unobstructed finish line flow must be designed specifically for AWD/Adaptive Athletes if the terrain or crowd density differs from the general population flow. The deceleration zone must extend long enough to allow high-speed racing chairs to brake safely without risk of colliding with stopping ambulatory runners.

5.1.2 Specialized Post-Race Personnel

Dedicated volunteers and staff should be stationed immediately at the finish line to assist adaptive athletes with deceleration, equipment stabilization, or immediate needs. This includes catchers trained to stabilize racing chairs, volunteers to carefully place medals around athletes who may have limited mobility or are in a recumbent position, and sighted guides to assist blind and low vision runners through the dense crowd.

5.1.3 Accessible Toilets

Race organizers must establish accessible, single-occupancy restrooms immediately downstream of the finish line to serve athletes during immediate post-race recovery. The provision of accessible restrooms in the finish zone must exist independently of any specialized post-race hospitality hubs, ensuring that every finishing athlete has immediate, barrier-free access regardless of division or support status. Units should be situated along the primary finish chute recovery path—positioned directly adjacent to post-finish medical triage, hydration distribution, and medal presentation—as well as within the general public family reunion zone.

Finish area accessible restrooms must feature ground-level zero-step entry or stable, non-slip ramps with a maximum slope profile of 1:12, an interior turning clearance of at least 150 cm (60 in) to ensure full wheelchair and handcycle maneuverability, and securely anchored interior grab bars.

5.2 Post-Race Infrastructure & Recovery

5.2.1 Accessible Layouts

Wheelchair-accessible medal presentations, lowered food and hydration tables, and completely clear, unobstructed transit paths leading to baggage pickup or medical tents should be provided. All post-race tables should match the 76 cm to 86 cm (30 to 34 in) low-profile height standard established at the aid stations.

5.2.2 AWD/Adaptive Athletes Post-Race Tent & Adaptive Reunion Area

To ensure safety, dignity, and immediate post-race support, race organizers should establish a secure, dedicated AWD/Adaptive Athletes Post-Race Recovery Tent equipped with accessible toilets, quiet space for medical decompression, physical recovery, and equipment adjustment. Situated immediately adjacent to the exit of the primary finish chute, this facility—or a dedicated, accessible reunion area located directly alongside it—must provide a step-free, crowd-managed space where athletes can seamlessly reunite with credentialed guides, personal caregivers, and support personnel while retrieving their day-use equipment.

5.2.3 Proximate Baggage & Medical Priority Release

A dedicated baggage pickup area for AWD/Adaptive Athletes situated as close to the finish line as safety permits, ensuring the timely handling of essential adaptive equipment and supporting safe post-race mobility. The color-coded medical pouches (containing glucose monitors, insulin, pump cases, etc.) should be organized alphabetically or by bib number inside this tent for immediate reclamation.

5.3 Ceremonies & Equal Recognition

5.3.1 Equitable Award Ceremonies

Official, high-profile award ceremonies should be held with equal prestige for the Wheelchair Division, Para Divisions, Deaf Division, Non-Binary Division, and all other recognized inclusion categories.

5.3.2 Podium Accessibility

The physical awards stage or podium structure must be equipped with a code-compliant ramp (1:12 slope) or a mechanical lift to ensure barrier-free access to all placement steps for all awarded athletes.