ITU EVENT ORGANISER'S MANUAL

ITU SPORT DEPARTMENT

Acknowledgment

The ITU Sport and Development Department would like to thank the Event Organisers and the Technical Officials who contributed to the preparation of this manual. This document is based on the valuable knowledge and experience of the triathlon family.

This specific version has been prepared by the ITU Sport Department and reviewed and approved by the ITU Technical Committee in 2019.

FOREWORD

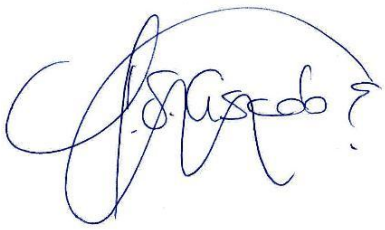
Triathlon is one of the most exciting and diverse sports practiced today. The traditional format includes the combination of three unique and exhilarating disciplines –swimming, road cycling and running- across various distances. Throw in aquathlon, cross triathlon and duathlon and the multisport lifestyle is something everyone in all parts of the world can enjoy.

For the last 30 years, ITU has been committed to growing our great sport on all five continents, not only with more athletes and coaches, but also with more cities hosting events and increasing the number of events. I'm proud to say we now have more than 170 National Federations, races on every continent and we enjoyed more flags than ever at the 2016 Rio Olympics and at the 2018 Buenos Aires Youth Games. From elite participation to grassroots events, we at ITU are committed to setting the standard for all triathlon races.

The increased and ever growing interest in multisports prompted us to create a third edition of the Event Organiser's Manual. With insight from event organisers of all levels across the globe, this guide aims to assist one in creating the best race environment possible. An ever-evolving journey, we welcome the opportunity to continue revising event operations to create safe and enjoyable triathlon atmospheres.

Thank you for your commitment to triathlon, and the best of luck to you in organising your next race.

Marisol Casado.
President of International Triathlon Union
Member of the International Olympic Committee



FOREWORD

One of the benefits of hosting a triathlon event is that it is not necessary to invest in a significant permanently built infrastructure. Triathlon organisers are all able to adapt themselves to the local conditions. If we don't have a location to swim, a duathlon can be an option. If there are only dirt roads available, we have a solution again with the cross triathlon. I think there is no place, where a triathlon or one of its related multisport, can't be organised.

This flexibility usually also brings challenges. There is not one simple way of staging an event. There are not two single triathlon events in any part of the world, which have exactly the same conditions. An event organiser always needs to find the best solutions based on the given environment.

This book helps you with some standards, which can be applicable or adaptable to your event. It is considered as an attachment to the Competition Rules, some sections it works as a document with solid requirements and in others more as a guide for you to get some answers when you reach a "crossroads" in your planning. The assigned Technical Delegates will always be there for any ITU event to help with the interpretation of this manual.

In the last few years, this book has become the most valuable tool for anyone taking on the role of a triathlon event organiser as it follows the evolution of the sport over the past number of years, with valuable input from the whole triathlon family.

I would like to thank all my colleagues – Thanos Nikopoulos, Eriketti Margari, Stefane Mauris and Leslie Buchanan, as well as the members of the ITU Technical Committee and for the input from the members of the various other committees– for their hard work updating it again and wish you all the success hosting an event.

Gergely Markus
Sport Director of the International Triathlon Union

Editing Team

ITU staff: Thanos Nikopoulos (GRE), Leslie Buchanan (CAN), Eriketti Margari (GRE), Stéfane Mauris (SUI).
ITU Technical Committee members: Jaime Cadaval (MEX), Howard Vine (GBR), Dr. Bela Varga (HUN), Dirk Bogaert (BEL), Jorge Garcia (ESP), David Markham (CAN), Shanelle Barrett (NZL).
ITU Multisport Committee representative: Duncan Hough (GBR)
Graphic Design: Stéfane Mauris (SUI)

For any suggestions or questions regarding the Events Organisers' Manual (EOM) please contact Thanos Nikopoulos - Head of Operations at thanos.nikopoulos@triathlon.org.

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KEY TO ICONS

This icon hightlights all the documents/information that need to be submitted to the ITU/Technical Delegate for approval.

This icon informs that a tool is available to simplify your work. It can be accessed via the Technical Delegate assigned to your event or ITU Sport Department.

This icon provides some insights to the reader.

This icon invites the readers to download a document found on the web.

This icon relates to a checklist helping you to ensure consistency and completeness in carrying out a task.

1 Section 1: Introduction

1.1 Purpose

The Event Organisers' Manual (EOM) contains all the basic elements to be applied to all the ITU Events and ITU Events' Categories as defined by the ITU Competition Rules. In addition to these uses, this manual also applies to any Major Games and Recognised Games in which any ITU related multisports are included.

For more specific information on the event management of the various ITU Events, ITU distributes a Local Organising Committee (LOC) requirement document. These documents can be found here. The EOM remains the basic guideline on event management and applies to any areas not specified in the LOC requirement document.

The assigned Technical Delegate (TD) of your event will be your main point of reference and will be able to provide clarifications and guidance on every section of the EOM. The TD is authorised to adapt the specifications outlined in this document to the local event's conditions.

1.2 Definitions

The definitions of the terms and the acronyms that are used in this document can be found in Appendix Section of the ITU Competition Rules.

1.3 Intents of ITU

The intents of ITU are:

- ITU implements a partnership style of management with the LOC and the host city;
- The LOC will collaborate closely with ITU, the National Federation (NF) and the host city to ensure that all articles in the event's agreement and the ITU Rules are complied with;
- The LOC awarded an ITU event is required to comply with the provisions outlined in the EOM.

1.4 ITU events and categories

- ITU events are the events sanctioned by ITU including those that may be added or varied from time to time:
- ITU related multisports can be found in Appendix I of the ITU Competition Rules.
- The list of the ITU Events and Categories can be found in Appendix Section of the ITU Competition Rules.

1.5 The principles of ITU events

All ITU events should be conducted under the following principles:

- safe and fair;
- spectator and media friendly;
- sponsors' satisfaction;
- profitability;
- brand consistency – look and feel; and
- legacy for the host city and NF.

1.6 Introduction of the ITU Sport Department

The ITU Sport Department led by Gergely Markus (HUN), is one of the six (6) departments within ITU (Sport, National Federations' Services, Anti- Doping, Admin- Finance & Legal, Communications, Marketing, IT). The department has ten (10) full time staff and occasionally a few interns to support its operations. Several areas are included under the Sport Department, such as Event Services, Sport Operations, Sport Results & Data.

ITU SPORT DEPARTMENT STAFF

Gergely Markus (HUN)
Sport Director.

Responsible for: Management of the Sport Department, Major Games (Olympic Games, Youth Olympic Games), ITU Events' Bidding Procedures, Events' Calendar Coordination.

Rolf Ebeling (GER)
Sport Department Advisor.

Advisor on: Long-term Strategic Planning, Sport Specific Analysis of Triathlon.

SPORT RESULTS SECTION

Enrique Quesada (ESP)
Director, Sport Results.

Responsible for: Entries, Results, Ranking, Qualification and Statistics, Rules.

David Bonilla (ESP)
Coordinator, Sport Results.

Responsible for: Entries, Results, Ranking, Qualification and Statistics, Sport Administration, ITU Uniform Panel, Historical and National Championships Results.

SPORT OPERATIONS SECTION

Thanos Nikopoulos (GRE)
Head, Operations.

Responsible for: Technical Operations for Major Games and WTS/WPS, Technical Equipment Certification, Transfer of Knowledge, Technical Officials (TO) Certification, Event Organisers & TOs' education.

Eric Angstadt Torres (ESP)
Senior Manager, Paratriathlon.

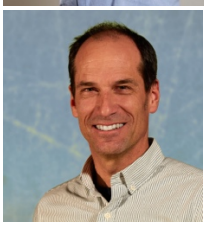
Responsible for: Technical Operations for Paratriathlon events, Classification Management, Research Project Coordination, Classifier's Education, Paratriathlon Events' Calendar Coordination Assistance.

Eriketti Margari (GRE)
Manager, Sport Operations and Anti-Doping.

Responsible for: Technical Operations for World Cups and Continental Games, Post Event Reporting Management, TO's Education E-Learning Assistance, Anti- Doping Administration Coordination.

Alpar Nagy (HUN)
Manager, Sport Operations.

Responsible for: Technical Operations for World Cups and Continental Games, Technical Documentation, Sport department administration, Historical Results Assistance, Inventory Management.



Stéfane Mauris (SUI)
Manager, Multisport Operations.

Responsible for: Technical Operations for Multisport Championships/ Beach Games/ World Games, Branding Designer.

EVENT SERVICES

Johanne Suss-Burckel (FRA)
Manager, Event and Athletes Services.

Responsible for: Events Administration, Events Logistics, ITU Headquarters' Administration, Accounting and Finance, Sport Department's Administration, Age-Group Services.

1.7 ITU/Continental Confederation officials

1.7.1 ITU Executive Board/Committee Representatives

Represent ITU at all VIP functions and can attend all meetings of the ITU appointees and ITU staff. A Continental Executive Board Representative will be present at Continental events.

1.7.2 ITU appointees

a) Team Leader (TL) coordinates and ensures successful implementation of ITU assigned events. Oversees ITU appointments including: TD, host broadcaster, live coverage and media crew. The TL is responsible to ensure that the requirements of the EOM are implemented to the fullest possible degree.

TIPS

These roles and responsibilities will be assigned to the TD in case no TL is appointed.

b) Technical Delegate (TD) ensures that the requirements of the EOM are implemented, as well as the implementation of the ITU Rules governing the competition including the anti-doping elements of the ITU event.
c) Assistant Technical Delegate (ATD) assists the TD in areas assigned to him/her.
d) Medical Delegate (MD) oversees the medical elements of the ITU event on behalf of ITU.

TIPS

The MD role will be carried out by the race medical director in case the MD is not assigned for an ITU event.

1.7.3 ITU media staff

These are assignments that may appear at any ITU event:

a) ITU Media Delegate: has the overall responsibility for all ITU media staff on site. Coordinates all aspects of the ITU media crew and is the primary liaison for all media matters.
b) ITU Print Media Manager: is responsible for generation of all print media material including press releases, obtaining athlete quotes, news stories etc. Responsible for helping set up the media zone and press conferences as per ITU standards. Also, responsible to liaise with the LOC on media management and accreditation.
c) ITU Online Producer: is responsible for live coverage at the event on www.triathlon.org including live results, photos, text updates, leader-board, live audio and live video, if applicable. The online producer is also responsible for post-event TriCast production for the ITU website.
d) ITUtv News Liaison: is responsible for production and distribution of broadcast news highlights.
e) ITU Official Photographer: attends all official functions and will have priority of media positions at the competition. The official photographer shares resources with local media.
f) ITU Onsite TV Producer: manages all aspects of field production and direction of host broadcaster team including; local scenic shots, pre-race interviews and features, all race footage, post-race interviews, dubbing of tapes for local broadcasters.
g) ITU TV Editor (cutter): edits the broadcast show on site. Must have a separate room in host hotel for undisturbed production of the show.
h) ITU TV Camera Crew: is responsible for obtaining all footage required for production of broadcast and online material. Works under direction of onsite producer. The size of the camera crew varies between 1-4 people.
i) ITU TV Voice Over: is responsible for voicing of all official ITU functions, TV show and live internet coverage. Can also facilitate LOC, if needed, on site.

j) ITU Timing and Results Manager: coordinates the live results as directed by the online producer.

1.7.4 ITU officials' responsibilities

a) Team Leader's responsibilities

Pre- Event:

- Overall communication with LOC and ITU team;
- All contractual issues and contract monitoring;
- ITU Team travel plans (ensure that all last-minute changes are communicated to LOC);
- Make sure host hotel for the ITU team is walking distance from the venue. If not, LOC should provide transportation (bikes and a car for the Media team);
- Schedule all meetings with LOC and ITU team;
- Coordinate logistics;
- Approval of event branding;
- Prize money distribution plan;
- Liaise with the ITU Media and TV Director to ensure all TV requirements and plans are in place including proper internet connection at the office; and
- Approve all planned social functions and venues.

Event Week:

- Work with ITU Executive Board Representative at the event to name presenters for medal and flower;
- Manages ITU/LOC meeting schedule;
- Chair Sport Presentation Meeting;
- Conduct medal ceremony rehearsal;
- Chair Athlete Briefing and take responsibility for communicating all non-competition direct issues;
- Chair Branding Meeting. Ensure timely installation and removal of materials;
- Provide LOC gifts to all ITU team;
- Distribute accreditations to all ITU staff and VIPs and guests;
- Ensure that ITU staff have all required communication tools (cell phones and radios);
- Meet with TV crew and ensure all needs are met; and
- Coordinate LOC Gift distribution post event (with ITU EB Representative).

During Event:

- Facilitator to ITU non Field of Play team;
- Coordination of announcers and sound control;
- Oversight and management of medal ceremonies; and
- Briefing of medal presenters.

Post Event:

- Plan de-brief with LOC the evening of the event or the day following the event;
- Ensure feedback from each member of ITU team;
- Manage the production of the post event report; and
- Fill TD assessment form.

b) Technical Delegate's responsibilities

Pre- Event:

- Event Insurance Certificate;
- Follow up the event planning process according to the event's project plan;
- All technical course communication;
- Course and venue maps review and approval;
- Event schedule as it pertains to the competition and the athlete's briefing;
- Coordination of all officials 30 days prior to the competition;
- Communication with the SFTOs on their logistics and assignments;
- Appointment of the Head Referee;
- Preparation of Athlete Briefing Powerpoint;
- Confirm LOC plans for doping control;
- Water Quality tests; and
- Insure ITU and LOC website accuracy.

Event Week:

- Confirm timing and results plan;
- Ensure security of field of play and approval of security system (if need be conduct briefing of security personnel);
- Confirm photo-finish and accuracy of finish line;
- Oversee venue set up and supplies for Athlete Briefing;
- Plan and chair Technical Officials meeting;
- Plan motorcycle and boat driver briefing(s);
- Distribute and retrieve ITU TOs vests and accreditation;
- Ensure all TOs receive LOC gift;
- Conduct the Athlete's Briefing; and
- Meet with the Competition Jury and explain the procedure following the Athlete's briefing.

During Event:

- Manage all traffic and race vehicles;
- Coordinate all emergency meetings in case needed and ensure procedures are followed; and
- Chair the Competition Jury and keep the minutes.

Post Event:

- Plan and chair TOs de-brief and provide any immediate required feedback to Team Leader;
- Fill aTD assessment form; and
- Complete Technical Delegate portion of ITU report within two weeks of the event.

c) ITU Media Delegate's responsibilities:

- Request and review all LOC media plans;
- Develop and implement ITU media plan for event;
- Work with LOC media contact to ensure wide distribution of television and media in host nation;
- Key point of contact for LOC for all media and television related matters;
- Organise key ITU media staff to assist LOC in media plan at event;
- Liaise with LOC media contact to organise press conference;
- Work with LOC media contact to ensure that LOC press centre is set up correctly;

- Work with LOC to implement media plan and track and record media exposure;
- Ensure media zone is set up correctly;
- Facilitate that all LOC media requests are met;
- Brief athletes at Athlete Briefing on key media points;
- First point of contact with all athletes and coordinate that all interviews are conducted in conjunction with ITU interviews /press conference to limit the time constraints on individual athletes at race time;
- Work with LOC to fulfil any media requests after the event;
- Follow up with LOC media contact to receive a copy of the LOC media log and key triathlon media contacts; and
- Distribute detailed statistics of the international media exposure of the event to the LOC within 8 weeks of the event.

2 Section 2: Administration/ Finance

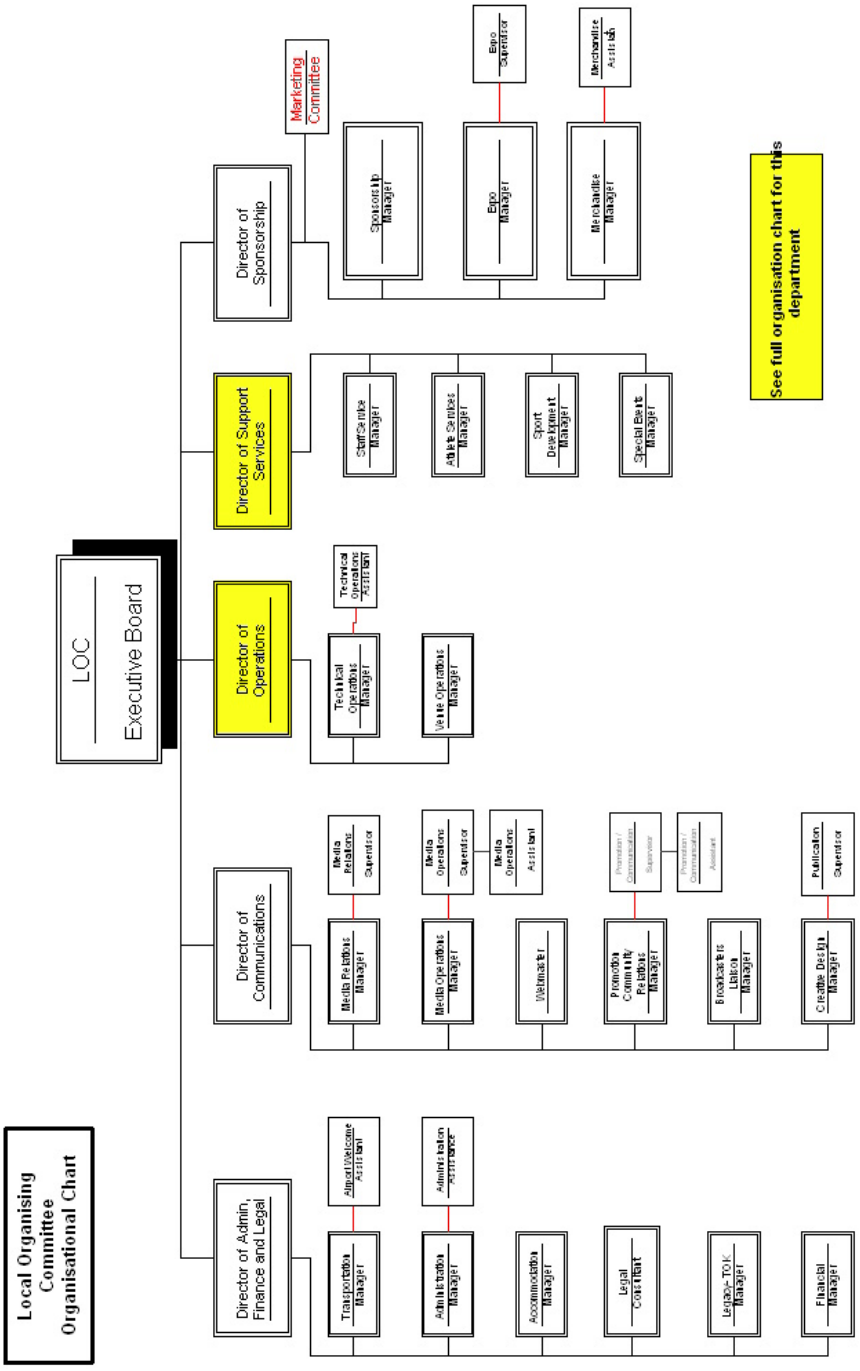
2.1 LOC organisational chart

These charts contain all the areas that a LOC should consider during their pre-planning process and operations during the event. The final hierarchy of the LOC is a structure that must be decided internally based on the collective strengths of its staff. Each of the boxes in the LOC organisational chart represents a task. A person can take the responsibilities of several tasks.

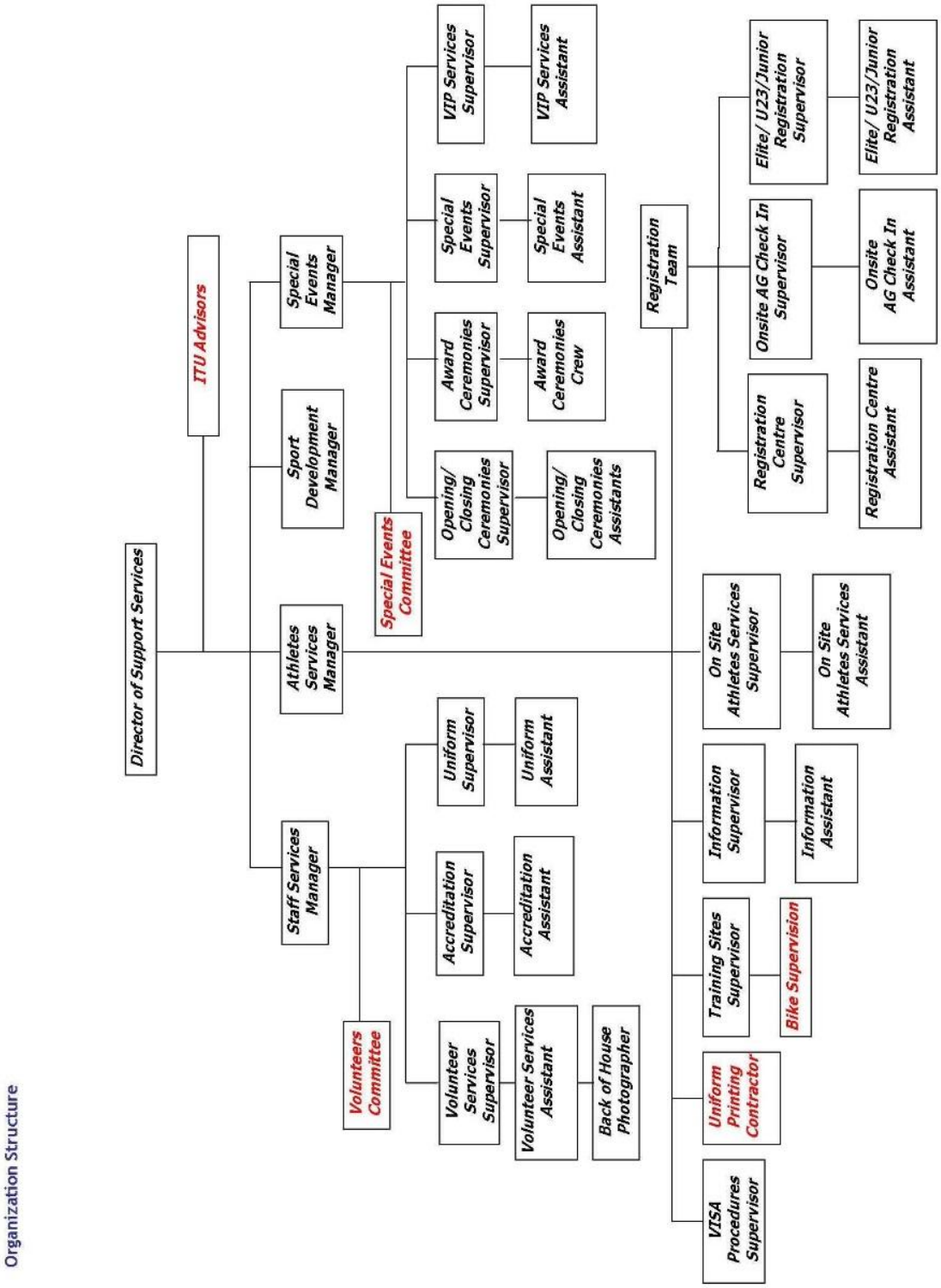
TOOLS

Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

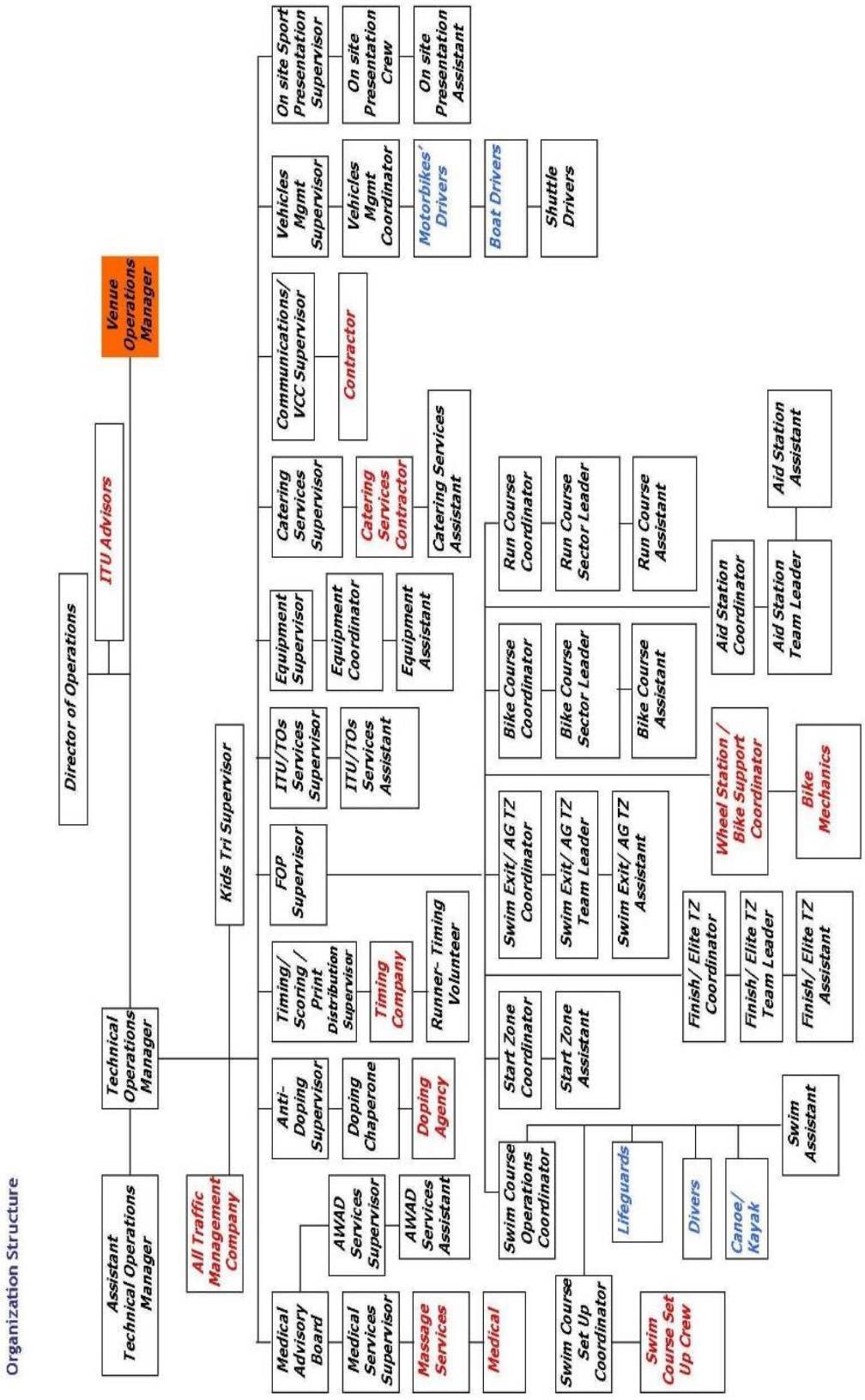
Organogram 1: LOC Executive Board Organogram (ITU,2019)



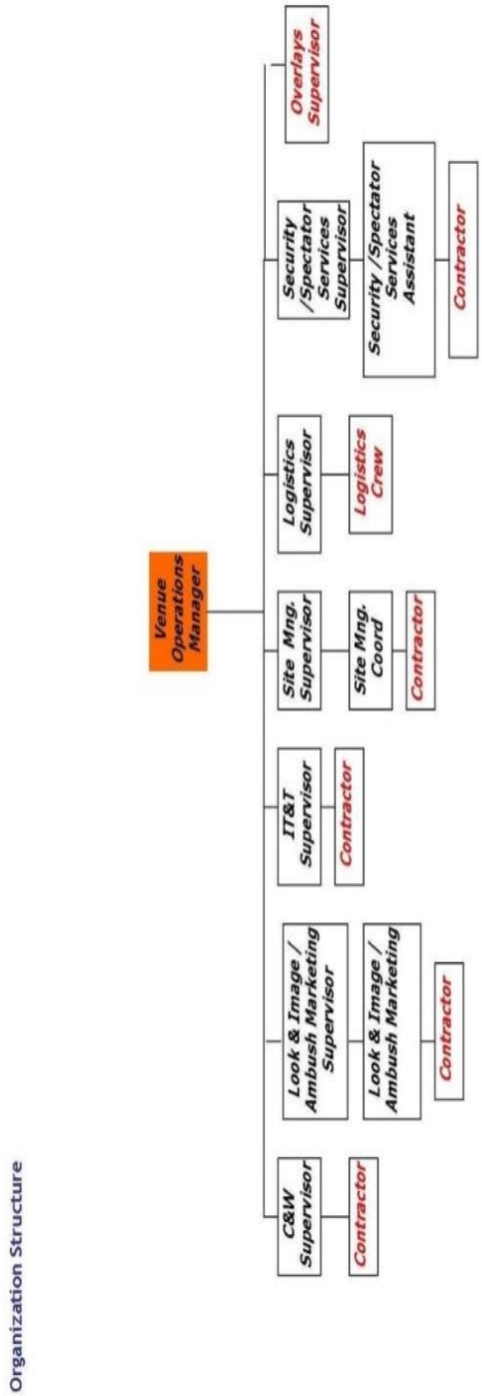
Organogram 2: Organization's Structure – Support Services (ITU, 2019)



Organogram 3: Organisation's Structure – Operations breakdown (ITU, 2019)



Organogram 4: Organisation's Structure – Venue Operations breakdown (ITU, 2019)



2.2 LOC size

A Local Organising Committee, depending on the size of the event, can vary from some hundreds to thousands of members. Most the LOCs base their structure on the recruitment of volunteers, based on clear recruitment plans that are described in Section 3 of this document.
Below, you can find an estimated number of volunteers for a continental triathlon championship event. The provided numbers are based on a single working shift per position. The final LOC's composition must be approved by the TD.

Table 1: LOC Job positions (ITU, 2019)

Sector	Position	Number of Personnel
Administration, Finance & Legal	Airport Welcome Assistant	4
Administration and Finance	Administration Assistant	4
Communications	Promotion/Communication Assistant	4
Media and Communications	Media Operations Assistant	6
Operations	Aid Station Assistant	10 per Aid Station
Operations	Scuba Diver	4
Operations	Equipment Set Up Team	20
Operations	Bike Course Assistant	At least 50
Operations	Run Course Assistant	At least 20
Operations	On Site Presentation Assistant	4
Operations	Lifeguard	12
Operations	Motorbike Driver	According to the TD Request
Operations	Paratriathlon Services Assistant	One per Classification Canel
Operations	Start Zone Assistant	4
	Paratriathlon Swim Exit Assistant	At least 16
Operations	Swim Exit AG/ Transition Zone Assistant	12
Operations	Finish / Elite Transition Zone Assistant	6
Operations	Technical Officials Services Assistant	2
Operations	Catering Services Assistant	6
Operations	Award Ceremonies Crew	3 Flag Carriers, 3 Medal Carriers, 2 Support
Sponsorship	Merchandising Assistant	2
Support Services	Accreditation Assistant	2
Support Services	Volunteer Services Assistant	4
Support Services	Information Assistant	6
Support Services	On Site Athletes Services Assistant	12 (AG/Elite)
Support Services	VIP Services Assistant	4
Support Services	Registration Centre Assistant	8

2.3 Official Language

- The official language of ITU is English. However, other languages may be used to improve communication.
- The LOC will communicate to others in the official language.
- The Competition Jury will be addressed in English.
- The Athletes' Briefing will be conducted in English. It may be delivered in both English and host language for an Age Group event (in separate sessions).
- Communication between officials and athletes regarding penalties will be in English.
- It is the responsibility of the athlete, or their NF, to provide translation if needed.
- Race announcers will preferably provide 50% of information in English and 50% in the local language. The final percentage will be decided during the Sport Presentation meeting prior to the race.

2.4 Event's agreement

- Each ITU Event will have an agreement signed by ITU or the Continental Confederation, the host National Federation (NF), the Local Organising Committee (LOC) and optionally by the Host City, based on the applicable bidding conditions.
- This EOM applies to all ITU Events at a certain level as stated in the event's agreement; all provisions of the EOM are legally binding upon all LOCs that have been awarded an ITU Event.
- ITU has the authority to determine what constitutes the correct implementation and interpretation of the EOM.

2.5 Insurance

- Event liability insurance and event cancellation is required as per the event's agreement.
- The amount of the insurance is described in the event's agreement.
- The LOC shall provide the assigned TD a certificate of insurance or other satisfactory evidence of the coverage no later than 60 days prior to the Event.
- Athlete Insurance: This is described in the ITU Competition Rules.

2.6 Database Management

- A database management system and format must be set-up in consultation with ITU and linked to the ITU online system. It will include:
  - Athlete Registration;
  - Timing and Results;
  - Medical Information;
  - Information for Race Announcers; and
  - Media Information.
- For the internal communication of the LOC, ITU is proposing the use of advanced web share point programs for the LOC to facilitate collaboration, provide content management features, implement business processes, and supply access to information that is essential to the event's goals and processes. This is an excellent tool which provides a single, integrated location where LOC members can efficiently collaborate with team members, find organisational resources, search for experts and corporate information, manage content and workflow, and leverage business insight to make better informed decisions.

2.7 Accountability

The LOC is accountable for the following, but not limited to:

- Event's agreement compliance;
- Athlete Medical Waivers (the waivers should be kept on file as long as the local law keeps its responsibility alive);
- Budgets (a template can be found in the Appendix Section);
- Contracts;
- Prize Money;
- Insurance;
- Payroll;
- Permits and Approvals;
- Purchasing and Invoicing;
- Reporting Schedule and Checklist;
- Visas;
- Water Quality Tests; and
- Any costs linked with the provided services.

2.8 Permits and Approvals

MAIL ITU

- Obtain written approval for course and location, including swim, bicycle, run, transition and all jurisdictions; (municipality; police, engineering department, etc.). The LOC must have ITU's approval for all segments of the course.

MAIL ITU

- All temporary structures (pontoon, grandstands, stages, gantries, etc.) must be approved in writing by a qualified structural engineer.
- A traffic management plan needs to be submitted for approval.

2.9 Prize Money Breakdown

LINK

- The prize money breakdown can be found and downloaded here.

2.10 Event Schedule

LINK

Every LOC must create an event schedule, which guarantees the required time window for completing an ITU race according to the ITU Competition Rules. The set time difference between the different races can be found in the ITU Competition Rules and the specific event type's LOC Requirements document.
The race week schedule must include the activities below:

- Training sessions;
- Course Familiarisations;
- Paratriathlon Classifications;
- Coaches' Meeting;
- Athletes' Briefing;
- Athletes' Check in/ Check out timelines (Athletes' Lounge/ Transition Area);
- Open Events/ Competition Events Start Times; and
- Medal Ceremonies;

For all the above, please refer to the Athlete's Services section.

MAIL ITU

The final proposal must be approved by the ITU TD.

Table 2: Schedule Sample (ITU World Triathlon Gold Coast Grand Final, 2018)

DATE	CATEGORY	START	FIN-ISH	EVENT	Venue	
Fri, 14 Sep 2018	Sunrise/sun-set	5:45				
Fri, 14 Sep 2018	Coordination meeting	6:00	6:30	Swim exit assistants training	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Training/Fa-miliarizations	6:30	7:30	Swim Familiarisation - ITU Par-atriathlon	Mitchell Park, Broad-water Parklands	Can be either Elite Para or Std Dis
Fri, 14 Sep 2018	ITU Specific	8:00	9:30	ITU Age Group National Federa-tions Meeting	QT hotel - Sunset	
Fri, 14 Sep 2018	Coordination meeting	8:30	9:00	TV Moto briefing	Mitchell Park, Broad-water Parklands	Frank, Chief Vehicular, Chief Bike, TV moto
Fri, 14 Sep 2018	U23	8:45	9:30	Athlete Lounge Open - ITU U23 Women	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Expo	9:00	16:00	Sport & Lifestyle Expo	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Expo	9:00	16:00	Official Merchandise Store Open	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Info	9:00	16:00	Event information centre Open	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Age Group	9:00	16:00	Registration - ITU Age Group - Standard Distance	Broadwater Park-lands	
Fri, 14 Sep 2018	U23	9:00	9:45	Transition Open - ITU U23 Women	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	U23	9:00	9:45	Swim Warm Up - ITU U23 Women	Mitchell Park, Broad-water Parklands	
Fri, 14 Sep 2018	Training/Fa-miliarizations	9:00	9:45	Bike escord training - ITU Parat-riathlon	Mitchell Park, Broad-water Parklands	Work in to U23 road closure/ split in two groups (standing/ WC)
Fri, 14 Sep 2018	ITU Specific	9:00	18:00	ITU Office (Admin)	QT hotel - North Break	24 Hour ac-cess
Fri, 14 Sep 2018	ITU Specific	9:00	18:00	ITU Media office	QT hotel - South Break	24 Hour ac-cess
Fri, 14 Sep 2018	ITU Specific	9:00	18:00	ITU President's Office	QT hotel - Orchid Suite	24 Hour ac-cess
Fri, 14 Sep 2018	ITU Specific	9:00	18:00	ITU TV Interview room	QT hotel - room TBC	
Fri, 14 Sep 2018	VIP	9:30	15:00	VIP Area	Mitchell Park, Broad-water Parklands	

Fri, 14 Sep 2018	U23	9:50		Athlete Introduction - ITU U23 Women		
Fri, 14 Sep 2018	Age Group	10:00	15:00	Q&A session for AG athletes	Broadwater Parklands	
Fri, 14 Sep 2018	U23	10:00	12:15	**RACE START** - ITU U23 - Women	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	U23	11:30	12:15	Athlete Lounge Open - ITU U23 Men	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	U23	11:45	12:30	Transition Open - ITU U23 Men	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	U23	11:45	12:30	Swim Warm Up - ITU U23 Men	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	U23	12:15	12:30	Medal Ceremony - ITU U23 Women	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	ITU Specific	12:00	14:00	ITU Paratriathlon National Federations Meeting	QT hotel - Sunset	
Fri, 14 Sep 2018	U23	12:35		Athlete Introduction - ITU U23 Men		
Fri, 14 Sep 2018	Coordination meeting	12:45		Host broadcasters' rehearshal during U23 race	Mitchell Park, Broadwater Parklands	Host broadcasters
Fri, 14 Sep 2018	U23	12:45	15:00	**RACE START** - ITU U23 - Men	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	Para	14:45	15:30	Briefing - ITU Paratriathlon coaches	Sunset room, level 1 - QT	
Fri, 14 Sep 2018	U23	15:00	15:15	Medal Ceremony - ITU U23 Men	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	Para	15:30	16:45	Briefing - ITU Paratriathlon VI/WC	Sunset room, level 1 - QT	
Fri, 14 Sep 2018	Para	16:45	18:00	Briefing - ITU Paratriathon all other	Sunset room, level 1 - QT	
Fri, 14 Sep 2018	Sunrise/sunset	17:38				
Fri, 14 Sep 2018	Para	18:00	19:00	ITU Paratriathlon handcycle and race w/c check/ (storage during the night)	Mitchell Park, Broadwater Parklands	
Fri, 14 Sep 2018	Junior	18:00	19:00	Briefing - ITU Juniors	Sunset room, level 1 - QT	
Fri, 14 Sep 2018	Coordination meeting	19:00	19:30	LOC - SMT Coordinators Meeting	Mitchell Park, Broadwater Parklands	ITU/ LOC core team

2.10.1 Start Waves

a) To ensure the safety of the athletes, there is a limit on the number of athletes starting at the same time. The size of each wave is defined in the ITU Competition Rules.

b) The time difference between the waves in an Age Group (AG) race is defined by the TD. The following parameters should be taken into consideration:

- Tide tables in the area;
- Length and laps of bike and run course;

- Road closure agreement with the police;
- TV and audience promotion;
- Number of athletes;
- Venue orientation;
- Sunset and sunrise times;
- Possible overlapping between men and women, young and old age groups;

2.10.2 Elite Individual Events

The following time windows should be given in an event schedule for hosting individual elite events (from start time to start time of the next race):

Table 3: Time Windows between Start Times in Elite events (ITU, 2018)

Triathlon/Duathlon Sprint Distance	2 hours
Triathlon/Duathlon Standard Distance	3 hours
Triathlon/Duathlon Mixed Relay	2 hours 30 minutes
Winter Triathlon	2 hours
Semi-finals, final	Please refer to ITU Competition Rules

LINK

MAIL ITU

The above timelines can be reduced by 15 min but this must be approved by the TD and requires additional operations.

2.10.3 Sprint Distance Triathlon AG (draft legal)

a) For these events, the ideal distribution is to split the athletes into three groups. First group for male athletes 45 and above, second group for all women, and third group for the younger men. Each group should have a start interval from the previous group equal to the time an average athlete needs to complete the whole bike course less half a lap (e.g. on a one lap 20km course, this is approximately 45 minutes).

LINK

b) Within each group, the different AG categories should start every 5 minutes. Two or more AG categories can be combined if the total number of athletes does not exceed the ITU Competition Rules.

Table 4: Age Group Sprint Wave Distribution (ITU World Triathlon Gold Coast Grand Final, 2018)

START	FINISH	EVENT
10:00	15:00	**RACE START** - ITU Age Group - Sprint Distance
10:00		SDWCH* - M45
10:05		SDWCH -M50
10:09		first athlete SD out of the water
10:10		SDWCH -M55
10:14		first athlete SD on bike
10:15		SDWCH -M60
10:20		SDWCH -M65
10:23		SDWCH -M70, M75, M80, M85
10:42		first athlete SD in T2
10:44		first athlete SD on run course
11:00		first athlete SD in finish
11:00		SDWCH -F16
11:05		SDWCH -F20
11:10		SDWCH -F25

11:15		SDWCH -F30
11:20		SDWCH -F35
11:25		SDWCH -F40
11:30		SDWCH -F45
11:35		SDWCH -F50
11:40		SDWCH -F55
11:43		SDWCH -F60, F65, F70, F75, F80, F85
12:30		SDWCH -M16
12:35		SDWCH -M20
12:40		SDWCH -M25
12:45		SDWCH -M30
12:50		SDWCH -M35
12:55		SDWCH -M40
13:20		last athlete SD out of the water
13:25		SDWCH Final Swim cut off (30' from each wave start)
13:30		last athlete SD on bike
13:35		SDWCH Bike cut off time 1
14:00		SDWCH Bike cut off time 2
14:30		SDWCH Bike cut off time 3
14:30		last athlete SD in T2
14:30	16:00	AG SDWCH Bike Check out
14:35		last athlete SD on run course
14:40		SDWCH Run cut off time 1
14:50		SDWCH Run cut off time 2
15:00		SDWCH Run cut off time 3
15:00		last athlete SD in finish

*Sprint Distance World Championship

2.10.4 Standard Distance Triathlon AG (draft illegal)

The final goal is to minimise overlapping on the bike course and to achieve an athletes' distribution on the bike course with no less than 25m per athlete in an AG triathlon draft illegal sprint/ standard distance event. A preferable distribution is to alter the genders per AG and to start the AG from youngest to oldest until AG 50- 54, and then starting from 80+ to youngest. Example:

Table 5: Age Group Standard Wave Distribution (ITU World Triathlon Gold Coast Grand Final, 2018)

START	FINISH	EVENT
06:15	12:30	**RACE START** - ITU Age Group - Standard Distance (First Wave)
06:15		ODWCH*-M18
06:18		ODWCH-F18
06:23		ODWCH-M20
06:26		ODWCH-F20
06:31		ODWCH-M25

06:33		first athlete OD out of the water
06:38		first athlete OD on bike
06:39		ODWCH-F25
06:44		ODWCH-M30
06:52		ODWCH-F30
06:57		ODWCH-M35A
07:02		ODWCH-M35B
07:05		ODWCH-F35
07:10		ODWCH-M40A
07:15		ODWCH-M40B
07:18		ODWCH-F40
07:28		ODWCH-M45
07:31		first athlete OD in T2
07:33		first athlete OD on run course
07:51		ODWCH-F45
07:56		ODWCH-M50
07:59		ODWCH-F50
08:04		ODWCH-M85, M80, M75, M70
08:06		first athlete OD in finish
08:07		ODWCH-F85, F80, F75, F70
08:20		ODWCH-M65
08:23		ODWCH-F65
08:28		ODWCH-M60
08:31		ODWCH-F60
08:36		ODWCH-M55
08:40		ODWCH-F55
09:20		last athlete OD out of the water
09:30		last athlete OD on bike
09:50		ODWCH Final Swim cut off (1h10' from each wave start)
10:45		ODWCH Bike cut off time 1
11:10		ODWCH Bike cut off time 2
11:10		last athlete SD in T2
11:15		last athlete SD on run course
11:30	13:30	AG ODWCH Bike Check out
11:30		ODWCH Bike cut off time 3
12:00		ODWCH Run cut off time 1
12:15		ODWCH Run cut off time 2
12:30		ODWCH Run cut off time 3
12:30		last athlete SD in finish

*Olympic Distance World Championship

2.10.5 Sprint Distance Duathlon AG (draft legal)

For these events, the ideal distribution is to split the athletes in two groups. The first group is

for the men and the second group is for the women.
Women should have a start interval from the men equal to the time an average athlete needs to complete the whole bike course less half a lap (e.g. on a one lap 20km course, this is approximately 45 minutes).
Within each group, the different AG categories should start between 3-5 minutes. Two or more AG categories can be combined as long as the total number of athletes does not exceed the ITU Competition Rules.

Table 6: Age Group Sprint Wave Distribution (ITU Multisport Festival Pontevedra, 2019)

Start	Finish	
08:00	11:25	AG Sprint Duathlon WCH- start
08:00		M16-29
08:03		M30-44
08:06		M45-59
08:09		>M60
08:55		F16-44
08:57		>F45

2.10.6 Standard Distance Duathlon AG (draft illegal)

The final goal is to minimize overlapping on the bike course and to achieve an athletes' distribution on the bike course with no less than 25m per athlete on an AG duathlon draft illegal sprint/ standard distance event. A preferable distribution is to start all men first and then all women. Example:

Table 7: Age Group Standard Wave Distribution (ITU Multisport Festival Pontevedra, 2019)

Start	Finish	
08:00	13:30	AG Standard Duathlon WCH- start
08:00		M18-M29
08:03		F18-F44
08:06		F>45
08:30		M30-M44
08:35		M45-M59
08:38		M>60
12:30		Bike cut off time - AG/Open
13:30		Run cut off time - AG/Open

2.10.7 Time Trial AG

- This event will run according to the ITU Competition Rules with the athletes starting one after the other.

2.10.8 Mixed Relay AG

a) This event will run according to the ITU Competition Rules
b) Two AG categories can be combined if the total number of athletes does not exceed the ITU Competition Rules.
c) Each wave should start only when the final fourth athletes from the previous wave have completed the swim section.

2.10.9 Aquathlon

- A preferable distribution is to start Elite/U23/Junior Men, followed by Elite/U23/Junior Women by guaranteeing there will be no athletes from another category in their way, then followed by Paratriathlon and AG with all the men first and then all the women.

Table 8: Aquathlon Wave Distribution (ITU Multisport Festival Pontevedra, 2019)

15:00		Elite/U23/Junior Men Aquathlon WCH - Start
15:05		Elite/U23/Junior Women Aquathlon WCH – Start
15:30		Para Aquathlon WCH - Start
16:00		AG Aquathlon WCH - Start
16:00		M16-M44
16:05		M>45
16:10		W16-W39
16:15		W>40

2.10.10 Long Distance Triathlon/Duathlon / Aquabike

a) The final goal is to minimise overlapping on the bike course and to achieve an athletes' distribution on the bike course with no less than 25m per athlete on an AG draft illegal long distance event.
b) A preferable distribution is to start Elite Men and Women first, followed by Paratriathlon and AG with all the men first and then all the women.
c) Aquabike wave will be after the last LD triathlon wave.

Table 9: LD Triathlon / Aquabike Wave Distribution (ITU Multisport Festival Pontevedra, 2019)

Start	Finish	
08:00	20:30	Elite Men LD WCH Triathlon - Start
08:05		Elite Women LD WCH Triathlon - Start
08:10		Para LD WCH Triathlon - Start
08:25	19:30	AG LD WCH Triathlon - Start
08:30		M18-M49
08:35		M>50
08:40		F18-F44
08:45		F45>
09:15	15:00	AG Aquabike WCH - Start
09:15		Men
09:20		Men 2nd wave
09:30		Women
according to ITU rules		Swim cut off - AG/Open LD/Aquabike
10:35		Low Tide 0.6m
15:00		Bike Cut-off time end of 2ndv lap - LD AG/Aquabike
16:30		Bike Cut-off time end of bike - LD AG/Aquabike
19:30		Run Cut-off time end of 3rd run lap - LD AG

20:30		Cut-off time end finish - LD AG

2.10.11 Cross Triathlon and Duathlon

- A preferable distribution is to start Junior Men and Women first. The Elite/U23 Men and Women will follow by guaranteeing there will be no athletes from another category in their way, then followed by Paratriathlon and AG with all the men first and then all the women.

Table 10: Cross Triathlon Wave Distribution (ITU Multisport Festival Fyn, 2018)

09:00		Junior Men Cross Triathlon WCH - Start
09.05		Junior Women Cross Triathlon WCH - Start
09:25		Elite/U23 Men Cross Triathlon WCH - Start
09:30		Elite/U23 Women Cross Triathlon WCH - Start
09:40		Para Cross Triathlon WCH - Start
10.30	16:00	AG Cross Triathlon WCH - Start
10:30		M18-M44
10:35		M>45
10:40		Women

2.10.12 Winter Triathlon

a) Elite and U23 must start together with one start for the men and one start for the women, two hours apart.
b) Junior Men and Women must start with 5 minutes separation. If it is after the elite event, it needs to be two hours after, if before, Elite can be 1 hour 30 minutes after the Junior.
c) AG must start in two waves, one for the men and one for the women with 5 minutes separation
d) Paratriathletes must start 5 minutes before the AG. If the run course is narrow, they must be moved 5 minutes after the AG waves.
e) Mixed Relay needs a time window of 2 hours and 30 minutes from start time to the next event's start time.

Note:
If the weather conditions are mild and the air temperature is increasing throughout the day over 0º Celsius, the race must start early in the morning. In this case, both Elite races can be grouped. The same applies if the LOC has no resources to prepare the track between races and the snow is powder and not tightly packed.

2.10.13 Paratriathlon

a) ITU Sport Department is issuing guidelines on the Paratriathlon Schedule according to the latest ITU Competition Rules on an annual basis.
b) The PTWC categories are preferable to start last with a minimum of 15 minutes from the other categories. This can extend to 1 hour according to the course layout.
c) In case of a sprint distance triathlon, the approximate race time per category are the following:

Table 11: Approximate Course Times for Logistics (ITU, 201)

	SWIM		BIKE		RUN		TOTAL TIME	
	1st athlete	Last athlete	1st athlete	Last athlete	1st athlete	Last athlete	1st athlete	Last athlete
PTWC-M	00:09:11	00:14:40	00:28:49	00:40:25	00:12:16	00:17:12	00:57:00	01:12:00
PTWC-W	00:10:40	00:19:03	00:38:50	00:47:12	00:13:03	00:20:25	01:10:00	01:25:00
PTS2-M	00:09:30	00:19:50	00:30:48	00:37:46	00:18:20	00:27:51	01:07:00	01:22:00
PTS2-W	00:12:07	00:15:57	00:36:50	00:43:26	00:22:58	00:34:40	01:17:00	01:32:00
PTS3-M	00:10:21	00:23:46	00:30:51	00:39:46	00:19:05	00:27:50	01:07:00	01:33:00
PTS3-W	00:12:55	00:17:59	00:37:24	00:41:09	00:22:24	00:31:33	01:20:00	01:33:00
PTS4-M	00:10:06	00:13:31	00:31:18	00:34:31	00:17:24	00:24:01	01:01:00	01:13:00
PTS4-W	00:11:19	00:18:49	00:35:27	00:43:00	00:21:10	00:26:49	01:13:00	01:24:00
PTS5-M	00:09:39	00:16:27	00:28:27	00:35:18	00:15:56	00:20:44	00:59:00	01:12:00
PTS5-W	00:11:13	00:17:14	00:32:33	00:39:19	00:20:24	00:24:38	01:06:00	01:21:00
PTVI-M	00:09:44	00:16:54	00:28:26	00:32:09	00:16:38	00:21:40	01:00:00	01:11:00
PTVI-W	00:11:12	00:17:26	00:30:27	00:36:28	00:19:23	00:27:05	01:07:00	01:24:00

*The above times reflect the estimated times at a World Paratriathlon Series event, with a bike course of minimum technical challenges. For an event with more technical course you need to adjust the estimated times by 15%. The same percentage should be used at Paratriathlon World Cups and Paratriathlon Continental Championships.
**Times are accumulative; therefore, the runner times are finish times.

There is a cut off time of 2 hours for all Elite Paratriathlon races in sprint triathlon distances.

2.11 Wave Start Time Presentation

The final waves schedule should be provided to the athletes with additional information including the size of the waves, race numbers, check in/ out times.

Table 12: AG Sprint Distance Wave Distribution (ITU World Triathlon Gold Coast Grand Final, 2018)

Wave		Start Time	Swim Cap		Current As at 7.8.18	Bib number	Groups	Transition Open (Thursday 13 September)	Transition Bike Check-Out (Thursday 13 September)
1	M45	10:00:00 AM	99	10%	90	10001-10100	947	8:00am - 9:30am	Last bike - 3:30pm
2	M50	10:05:00 AM	101	10%	92	10101-10201	10:00am - 11:25am Waves		
3	M55	10:10:00 AM	99	10%	90	10202-10300			
4	M60	10:15:00 AM	83	10%	75	10301-10382			
5	M65	10:20:00 AM	72	10%	65	10383- 10455			
6	M70 M75 M80 M85	10:23:00 AM	81	10%	74	10456-10535			
7	F16	11:00:00 AM	66	10%	60	10536-10602			
8	F20	11:05:00 AM	51	10%	46	10603-10654			
9	F25	11:10:00 AM	77	10%	70	10655-10729			
10	F30	11:15:00 AM	78	10%	71	10730-10808			
11	F35	11:20:00 AM	73	10%	66	10809-10882			
12	F40	11:25:00 AM	68	10%	62	10883-10951			
13	F45	11:30:00 AM	86	10%	78	10952-11038	866	8:00am - 11:00am	Last bike - 3:30pm
14	F50	11:35:00 AM	77	10%	70	11039-11115	11:30am - 12:55pm Waves		
15	F55	11:40:00 AM	76	10%	69	11116-11192			
16	F60 F65 F70 F75 F80 F85	11:43:00 AM	127	10%	115	11193-11317			
17	M16	12:30:00 PM	79	10%	72	11318-11397			
18	M20	12:35:00 PM	65	10%	59	11398-11463			
19	M25	12:40:00 PM	76	10%	69	11464-11540			
20	M30	12:45:00 PM	94	10%	85	11541-11635			
21	M35	12:50:00 PM	84	10%	76	11636-11719			
22	M40	12:55:00 PM	103	10%	94	11720-11822			

TIPS

ITU has created a tool to calculate the AG waves in a triathlon draft illegal standard distance event. Your TD can help you with this schedule using this tool.

2.12 Site Visits

TOOLS

ITU, through its staff or the assigned TD, has the right to conduct a site visit during the event's bidding process and following the decision to award the event to the Host City. The number of site visits will be determined by ITU. Specific checklists will be used during the site visits. The main elements that will be reviewed during the site visits are the following:

Table 13: Site Visit Agenda (ITU, 2019)

BIDDING PHASE	**AWARDED EVENTS**
Suitable Location	Set up Plans/ Operation Plans
LOC Structure	Organogram
Financial Capability	Budget
Infrastructure	Venue Planning
Weather Data Statistics	Expected Weather Conditions
Suitability Assessment	Course Risk Assessment
Public Commitment	Public Involvement
Scalability Assessment	Implementation
General Strategy	Business Plan
Flexibility	Project Planning
NF Development Assessment	NF Involvement
Legacy Potential	Legacy Development

2.13 Event Planning Progress Report

During the planning period a progress reporting process will be set up on a frequent basis through conference calls. The number of calls will be determined by ITU.
An ITU Events Milestones & Critical Path Schedule will be followed to monitor the planning process (Appendix Section). The LOC will be assessed based on these documents.

2.14 Event week ITU – LOC Meetings

ITU may request the following meetings scheduled prior to the event:

Table 14: Race Week Meeting Schedule Sample (ITU, 2019)

Event	Attendants
ITU Meeting	ITU Management Team
ITU/LOC Meeting	Core ITU & LOC Staff
Technical Meeting	ITU TD, LOC Operations, LOC Technical Operations, LOC Field of Play
Media Management Meeting	ITU Official Photographer, LOC Media Operations, ITU TD, ITU Media Delegate
Branding Meeting	ITU Team Leader, LOC Marketing
Briefing Registration Meeting	ITU TD, LOC Administration, LOC Registration
Security & Accreditation Communications & Radio Protocol	ITU TD, LOC Operations, LOC Security
Tos Meeting	ITU TD, ITOs, NTOs, LOC Technical Officials Services
Marine Plan Meeting	ITU TD, LOC Operations, LOC Swim Team
Sport Presentation Meeting	ITU Team Leader, LOC Marketing, LOC Sport Presentation
Timing Meeting	ITU TD, LOC Timing Liaison LOC Timing contractor
Motorbike and boat drivers briefing	ITU TD, LOC Technical Operations, LOC Motorcycle Drivers, LOC Boat Drivers
Medical Meeting	ITU TD, LOC Medical Director, ITU Medical Delegate
Medal Ceremony and sound check Rehearsal	ITU TL, LOC Protocol
TV Meeting	ITU Media Delegate, ITU TD, LOC TV
Start Rehearsal	ITU TD, ITOs, NTOs
Finish Rehearsal	ITU TD, ITOs, NTOs
LOC/ITU De-briefing	Core ITU & LOC Staff

2.15 Event Debriefing

An event de-briefing has to take place between the Technical Delegate and the LOC, following the completion of the competition. Alternatively, a conference call can be scheduled for discussing the lessons learned and experiences, following the submission of the ITU post-event report.

2.16 TD's Assessment and Performance Review

As part of ITU's commitment to the constant improvement of its Technical Officials, ITU will request a review of the Technical Delegate's (TD) performance during the planning and staging of the event/s.
The purpose of this assessment is to monitor the performance of the TDs against their role and the responsibilities assigned in accordance to those, outlined by ITU and listed above. It is critical that the LOC participates by completing this assessment and providing constructive feedback, so that ITU can analyse not only the performance of the TDs, but also the ITU certification and education program for the Technical Officials.

2.17 Accreditation Protocol

2.17.1 Introduction

a) Accreditation is used for:
   - determining venue access privileges;
   - accurate identification and verification;
   - allocating entry for limited numbers for capacity reasons.

b) The key factors driving major event accreditation systems are:
   - identification and screening;
   - security;
   - access control;
   - effective working environment.

c) ITU has a standardised accreditation design system that must be used at all events.
d) The template below outlines the key accreditation classes and colours. A separate card and signage design template is included in the Appendix Section.
e) The accreditation card should be 0.1m x 0.15m and should be either hard plastic or of a high quality laminated material. The access signs should be 0.6m x 0.9m.
f) The LOC must pay attention to both the development of the accreditation, the development of the secure zone signage and the implementation of an effective security team to manage and control the accreditation and security on site.
g) Security zones must be indicated on all site plans.
h) The LOC must develop a media accreditation registration on-line form; the form must be approved by the ITU Media Delegate, prior to posting and all registered media must be approved by ITU.
i) All accreditation requests for the national team delegations must be submitted through the National Federations.
j) The final plan and proposed accreditation cards, zone control signage and venue accreditation plan/flows must be submitted to the ITU TD for approval minimum of 60 days in advance of the event.
k) For WTS, WC, Multisport WCH, the Accreditation list for the ITU team with names and titles will come from ITU.

2.17.2 Zones

The accreditation card has three (3) sections:

a) Coloured backdrop, which indicates the group the user belongs to:

Table 15: ITU Accreditation Zones – Coloured background (ITU, 2014)

Blue Background	ITU Family/ Team Delegation
Red Background	LOC member
White Background	All other clients

b) A numbered access right, which allows the user to enter into specific areas:

Table 16: ITU Accreditation Zones – Access rights (ITU, 2014)

1	Coaches' Area
2	Athletes' Preparation Area
3	Photographers Area
4	Press Area
5	Broadcasters' Area
6 or yellow wristband	VIP Area
7	Medical Area
8	Field of Play
9	LOC Working Area
10	ITU Working Area
F	Finishing Area

c) The title of the user, which specifies the sub- group that he/she belongs to: ex. Elite men athletes, U23 women athletes, Junior/ Youth men athletes, Elite coaches, etc.

2.17.3 Accreditation Card

The ITU accreditation card for all ITU Events is formatted as follows:

Picture 1: ITU Accreditation Card Samples (ITU, 2019)

2.17.4 Sub- Categories

TIPS

Due to the high number of AG accreditations that the LOC must prepare, the accreditation cards can be replaced by a specific coloured wristband. Ideally the athlete's race number should be indicated on the wristband.

In the World Triathlon Series (WTS), World Cups and Paratriathlon International events, the Accredited Coaches and Team Medical will receive wristbands from ITU.

Table 17: Accreditation Categories (ITU, 2018)

Cate-gories	Sub-categories or Title	Access											Comment	Accreditation tool
		Back-drop	1	2	3	4	5	6	7	8	9	10	F	
ITU Family	ITU Executive Board		X	X	X	X	X	X	X	X	X	X	X		Accreditation card
	ITU Technical Delegate		X	X	X	X	X	X	X	X	X	X	X		Accreditation card
	ITU Team Leader		X	X	X	X	X	X	X	X	X	X	X		Accreditation card
	ITU Medical Delegate		X	X	X	X	X	X	X	X	X	X	X		Accreditation card
	ITU Media Manager		X	X	X	X	X	X		X	X	X	X		Accreditation card
	ITU Photographer		X	X	X	X	X	X		X	X	X	X		Accreditation card
	ITU TV Crew		X	X	X	X	X	X		X	X	X	X		Accreditation card
	Technical Officials		X	X						X		X	X	All ITOs & NTOs	Accreditation card
LOC	City Authorities		X	X	X	X	X	X	X	X	X	X		Maximum 5 persons	Accreditation card
	LOC Staff		X	X	X	X	X	X	X	X	X	X	X	Maximum 12 persons	Accreditation card
	LOC Medical, Recovery & Doping Areas			X					X	X	X		X		Accreditation card
	LOC FOP Staff & Volunteer									X	X				Accreditation card
	LOC Venue Management										X	X	X		Accreditation card
	LOC Staff Services										X				Accreditation card
	LOC TOs' Services										X	X			Accreditation card
	LOC VIP Services							X			X				Accreditation card
	LOC Athletes' Services		X	X							X				Accreditation card
	LOC Media				X	X	X				X				Accreditation card

Other Clients	VIP							X					Sponsors, Governmental and Municipal representatives	Accreditation card or yellow wristband
	Timing			X			X			X	X	X	X		Accreditation card
	On site Sport Presentation									X	X	X			Accreditation card
	Photographer				X	X									Accreditation card
	Print Media					X									Accreditation card
	Broadcasters (Non right holders)				X	X									Accreditation card
	Broadcasters (Right holders)				X	X	X								Accreditation card
	Broadcasters (Live)				X	X	X			X	X		X		Accreditation card
Sport Delegation	Athletes (elite, U23,junior,paratriathlon)			X										The athletes' events category and gender has to be included on the card, to give access during their event. (ex: Junior Men Athlete)	Accreditation card
	Mixed Relay Athletes			X										When an individual event is running parallel to a mixed relay event a sticker will be added on the individual athlete's card.	Accreditation card
	AG athletes			X										The athletes' events category and discipline has to be included in the card, to give access during their event. Alternatively a different colour of wristband can be used. (e.x: AG Standard distance Athlete)	Accreditation card or wristband
	Head of Delegation		X	X								X		Only at Multisport and Grand Final	Accreditation card or wristband
	NF Representatives		X					X				X			Accreditation card
	Coaches		X	X										The athletes' event category that the coach is accredited for,has to be included on the card. (e.x: Junior Coach)	Accreditation card or wristband
	Team Medical		X	X										The athletes' event category that the team medical is accredited for,has to be included on the card. (e.x: Junior Team Medical) **The Team Medical can have access to the Medical Area after invitation from the ITU Medical Delegate or the LOC Medical Doctor.**	Accreditation card or wristband

	Team Mechanic/ Skiman		X										The athletes' event category that the team mechanic is accredited for,has to be included on the card. (e.x: Junior Team Mechical)	Accreditation card
	Paratriathlon Personal Handlers			X					X	X			X		Accreditation card

2.17.5 Quota of NF Delegation Accreditation Cards

A certain number of registered NF Delegates are entitled to a blue zone accreditation card or wristband. The NF quota for each of the categories and event can be found in the ITU Competition Rules.

At the AG Continental and World Championships, the LOC will provide the required number of accreditation cards/ wristbands according to the quota without a pre-registration process from the National Federation. All the accreditation cards/ wristbands should be delivered in one envelope to the Team Manager of each delegation.

Coaches and Team Medical for Elite/ U23/ Junior/Youth and Paratriathlon International Events can receive an accreditation only by registering through the ITU online registration system. No accreditation card can be issued without registration and after the deadline set in the ITU Competition rules. The distribution of these accreditation cards/ wristbands will take place at the Athletes' Briefing to the respective individual using a sign-in list provided by ITU. The time and place of the accreditation cards/ wristbands distribution can only be changed with the TD's approval.

The LOC must keep the contact details of at least one of each team coach and medical personnel.

2.17.6 Coaches' Area Access at ITU Events

The LOC should make a provision for dedicated coaches' zones in the following areas:

- Grandstands
- Start Area
- Swim Exit Area
- Transition Area
- Penalty Box
- Bike/ Run Course (in case of a high volume of spectators)

Each area has to be well signed, fenced off from the FOP and with an access control process in place. The coaches' areas have to be approved by the Technical Delegate.

2.17.7 Medical Area Access for Team Medical at ITU Events

The Team Medical person should have access to the following areas:

- Coaches' Areas
- Medical Area after approval from the MD or the LOC Medical Doctor

2.17.8 VVIP (Very very important person) Area Access

The World/ Continental Championships attract a high number of VIPs and there are cases that it is required to create a VVIP area for people with limited access. In this case, an additional colour of wristband or a specific invitation can be used for inviting authorised people to this area. This provisional service has to be approved by the TD.

2.17.9 Access Rights per Room Code

Each of the provided facilities in a venue must have clearly defined access rights. The access rights need to be easily identified and it is the LOC's responsibility to provide enough volunteers or security personnel to manage the control access for all the clients. The final accreditation access control plan has to be approved by the TD.

Table 18: Room Access Rights (ITU, 2019)

Room	Access rights	Comment
"Elite"Athletes' lounge	2 & "event category/gender title"	The sign should be updated before and after each event.
AG Athletes' lounge	2 & "event category/discpline title"	e.x. 2/ AG Standard distance. A specific colour or wristband can give you access as well.
AG Pre start area	8	
AG Transition zone (check in/ check out)	2 & "event category/discpline title"	e.x. 2/ AG Standard distance. A specific colour or wristband can give you access along with a means of identifying the athlete's race number (athlete's bib number or race number on wristband). Additionally, check out may happen by any individual in possession of the check out ticket.
Athletes' bag drop off area	2 & "event category/discpline title"	e.x. 2/ AG Standard distance. A specific colour or wristband can give you access along with a means of identifying the athlete's race number (athlete's bib number or race number on wristband).
Clean & waste compound	9	
Coaches' area	1 & "event category title"	e.x. 1/ Junior Event
Doping control area	7	Accredited coaches can be invited to the area, if they are accompanied by the selected athlete.
EXPO area	n/a	No accreditation restrictions
Field of Play	8	
Food court (spectators)	n/a	No accreditation restrictions
FOP Photo areas	3	
Grandstands	Free or with tickets	
ITU Media office	10	
ITU office	10	
LOC office	9	
LOC/ITU Catering area	9 or 10	9,10
Logisitcs compound	9	
Massage area	2	Massage area exit to Post Finish Area must be controlled with an access control F (if adjacent)
Media centre	3 or 4 or 5	3,4,5
Medical area	7	
Mixed zone	3 or 4 or 5	3,4,5
Photographers' stand	3	

Post Finish area	F	The area between the Finish Gantry and the Medical tent according to the standard post finish area layout.
Recovery area	2	Recovery area exit to Post Finish Area must be controlled with an access control F (if adjacent)
Security office	9	
Sport presentation room	9 or 10	9,10
Timing & results' room	9 or 10	9,10
TOs' lounge	10	
TV Commentators' positions	5	
TV Compound	5	
Venue Control Centre	9 or 10	9,10
VIP area	6 or wristband	
Volunteers' area	9	
VVIP area	Different wristband than the VIP area or invitation	

2.17.10 Accreditation Templates

The ITU accreditation templates can be accessed here.

In order to properly manipulate the ITU accreditation cards a graphic program such as Adobe Illustrator, Photoshop or Corel Draw is required. More information can be found in the Appendix Section of this document.

2.17.11 Accreditation and Security

The checklist below can be used as a guideline for the preparation of a complete accreditation and security plan.

a) Preparation
- Create accreditation cards based on the ITU template;
- Create access signage based on the ITU template;
- Create the list of people who will be granted all access and submit to ITU for approval;
- Create all the other categories and numbers of cards for each area based on discussion and direction from the Technical Delegate;
- Source security vests for security volunteers; and
- Plan on site training session with all security volunteers.

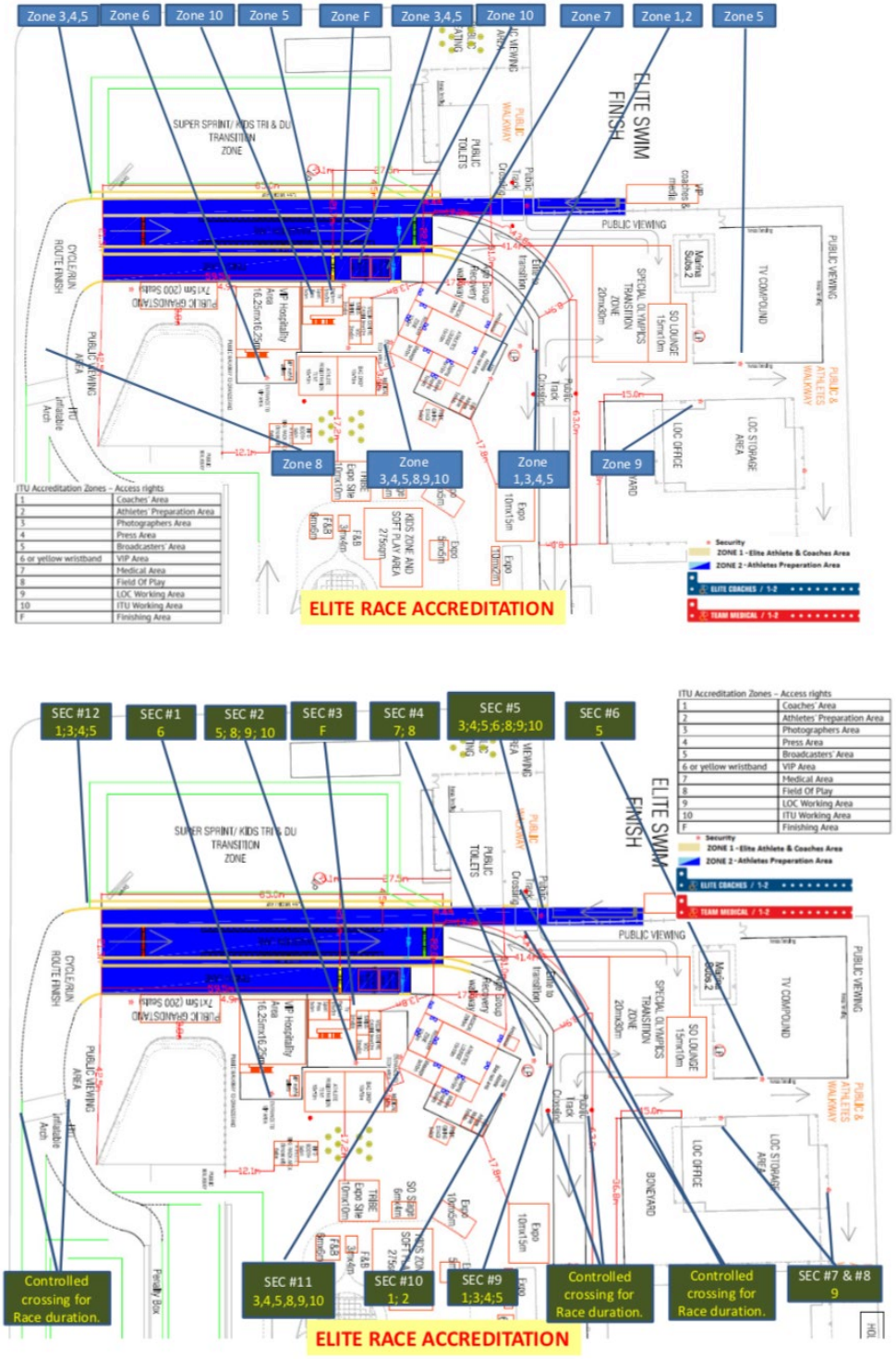
b) Race Site
- Ensure that there are adequate access points to the field of play;
- Ensure that there are frequent and logical crossing points for officials, media and race personnel;
- Ensure that there are logical and appropriate crossing points for spectators;
- Ensure adequate security to all areas.

c) Security Personnel:
- Ensure that there are trained security personnel manning each access control point;
- The security personnel must be clearly visible and wear vests that say ‘SECURITY’. They should not be dressed the same as regular volunteers.

2.17.12 Accreditation Dot Plan

The LOC should prepare a map with all the accreditation zones and the access/ security checkpoints for the Race Site (Dot Plan). This document should be submitted to the TD for approval. A sample of this document is as follows:

Picture 2: Accreditation Dot Plan Sample (Abu Dhabi WTS, 2019)



3 Section 3: Services

One important factor for the success of an event is to offer a high-quality set of services for all its clients. This part of the EOM will review the main actions or solutions that must take place to satisfy all the people who the LOC should serve.

3.1 Staff and Volunteer Services

TOOLS

A complete scope of services for the staff and volunteer recruited to deliver the event is essential for increasing their performance.

3.1.1 Volunteer Supervisor

A specific person from the LOC has to be assigned to coordinate the services of the volunteers. Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

3.1.2 Recruitment Plan

The LOC must indicate on their website the need for volunteers for the event.

a) It is important to create a large accurate database of people who are interested in volunteering for the event. This pool of volunteers can be selected from:
   - Committee members as they often provide the most reliable source;
   - Sports clubs
   - Recreation centre program members;
   - Volunteer and service groups;
   - Companies with a community work programme;
   - Schools, education institutes;
   - Regional triathlon associations;
   - All Area Coordinators should help the LOC recruit volunteers. Using the same Area Coordinators from year to year and the same people as volunteers will help with training and recruitment.

b) The LOC must:
   - Clearly define the total number of volunteers who are needed per area along with their job description;
   - Create working shifts for each volunteer which should not extend more than 8 hours;
   - Use an online volunteer application form with the following information:
     - Last Name;
     - First Name;
     - Position;
     - Email address; and
     - Phone number(s)
   - Be prepared for a certain percentage of no-show volunteers. This percentage can vary based on weather conditions or other activities in the city, but should not exceed more than 40%.

c) Ideally volunteers under the age of 18 should be supervised by an adult.

TIPS

Use an online software for managing the volunteer rostering such as "Volgistics".

3.1.3 Volunteer Management

It's important to keep volunteers motivated and satisfied. Some key points are:

a) Be prepared for them.
b) Recruit Area Coordinators for every different area of the race. (I.e. swim, bike, run, transition, aid stations, marshals, lifeguards, etc.). Area Coordinators should understand the area they will be supervising;
c) Make them feel welcomed;
d) Provide them with excellent training;
e) Make the work interesting;
f) Inform them in advance on how much time their assignment will take;
g) Be in contact with them regularly;
h) Provide them with a nice and appropriate uniform;
i) Plan their food service and rest time carefully;
j) Consider the race day transportation needs- to and from the venue;
k) Come up with creative ways of formally saying "thank you".
l) Send a letter of appreciation;
m) Post volunteer photos on the website;
n) Host an appreciation event for them;
o) Surprise them;
p) Provide other incentives.
q) Encourage feedback. The Area Coordinators are responsible to de-brief their volunteers.

3.1.4 Volunteer Training

Volunteer training has to be planned based on the following principles:

a) Clearly define their roles and responsibilities and make sure they are trained in advance on their duties;
b) All volunteers should receive an information package, which includes an event and course overview, and general awareness information;
c) There is specialised training required for athlete services, spectator services, motorcycle drivers, communications, timing, live coverage and security;
d) All field of play volunteers should receive basic ITU Competition Rules training;
e) All volunteers should be encouraged to promote the event within their own community;

A visual presentation must be created for this training. The LOC can request from the ITU Sport Department samples of general volunteer training sessions.

3.1.5 Staff Handbook

A staff handbook must be created by the LOC that provides all the key information to the team. The handbook should include:

a) Event description;
b) Detailed daily activity schedule;
c) Site maps;
d) Staff contact details;
e) Volunteer team contact details;
f) Volunteer management tips;
g) Accreditation and uniform ;
h) Accommodation and catering ;
i) Travel and transportation;
j) Team meeting schedules;
k) Payment and expenses policies (if applicable);
l) Race routes and athletes' guide;

m) Race communication and radio protocol;
n) Emergency procedures; and
o) Roles and operations specifics.

3.1.6 Volunteer Handbook

A volunteer handbook must be created by the LOC that provides all the key information to the team. The handbook should include:

a) Welcome letters;
b) General Information such as:
   - LOC Contact Information;
   - Event Schedule; and
   - Venue Map.
c) Volunteer Specific Information as:
   - Parking Information;
   - Transportation Information;
   - Check in/ Check Out Procedures;
   - Uniform Instructions;
   - Food Service Information;
   - Health and Safety Information;
   - Location of toilets:
   - Lost & Found;
   - Roles & Responsibilities; and
   - Code of Conduct.
d) Course and Event Information:
   - Triathlon History;
   - Event Maps and Time Schedules;
   - Parallel Event Timelines;
e) PR Guidelines as:
   - Event Promotion;
   - What should or should not be said to the media.

The LOC should provide to all their volunteers a pocket-sized guide that they can refer to every time they are asked for information around the event.

3.1.7 Volunteer Orientation

Once the big day has arrived for the volunteers' orientation the LOC must ensure to:

a) Have volunteers pick up their accreditation, volunteer handbook, and volunteer uniform, with a proper signing off process;
b) Provide volunteers with food and refreshments during the training session;
c) Complete the training session with the use of interesting visuals, site inspection and an opportunity for Q & A;
d) to have break out groups for each area (i.e. bike, transition, etc.). Have the Area Co-ordinators of each area discuss everything the volunteers need to know;
e) Give away volunteer prizes at the end of orientation to show appreciation;

After the volunteer orientation, it is important to update all lists and make sure there is a mass volunteer list as well as specific area lists.

TIPS

Come up with a plan of providing this information to the absent volunteers.

3.1.8 Volunteer Race Day Services

The steps below have to be followed on race day:

a) Have all volunteers check in at the volunteer tent according to the check-in times in their volunteer handbook.
b) Area Coordinators will then take their volunteers to their specified locations.
c) Be sure to provide volunteers with complimentary food and refreshments throughout the day.
d) Some volunteers will be out on the course all day; therefore, they will require a bag lunch.
e) Make sure all volunteers clean up their areas after the race is complete. This will ensure a quick and efficient clean up.

3.2 Athlete Services

3.2.1 Overview

a) Athletes are the most important stakeholders of the event. Their overall view of the event will be reflected not just in the race but in the consideration that has gone into anticipating what their needs will be.
b) Basic Athlete Services to be provided by the LOC include:
   - Visa application;
   - Airport transportation, including provisions for bike transportation;
   - Athlete information booths (airport, hotels, venue);
   - Accommodation services;
   - Medical services;
   - Training services;
   - Access to the swim, bike and run courses for familiarisation;
   - Warm up opportunities
   - Massage and spa;
   - Bike mechanic support;
   - Bike rental/ Bike transfer;
   - Uniform printing;
   - Registration;
   - Race packages;
   - Briefings;
   - Posting results;
   - Local tourism services;
   - Special athlete deals for local services and restaurants;
   - Accurate event website;
   - Athletes' guide;
   - Fan Zone on bike and run courses;
   - Finisher medal;
   - Personalised race photos/videos; and
   - Event Application.
c) An AG services checklist has been created for the LOC and can be found at the Appendix 11.

MAIL ITU

The whole scope of athlete services has to be approved by the TD.

3.2.2 Visa Application

a) The LOC must contact their country's Customs and Immigration Department and determine the following:

- Which countries require a visa to enter the host country?
- The location of the consulate or embassy of those countries requiring a visa.

b) The LOC must then publish this important visa information on the event website and on www.triathlon.org.
c) Upon request for Visa invitation letters, the LOC must first contact ITU to determine that the athlete or official requesting the information is fully affiliated with ITU and has a reason to request an invitation to attend the event.
d) ITU will then provide a letter of invitation template in English to be used by the LOC. The LOC will be responsible for the appropriate translation of this letter when necessary.
e) ITU must be copied (cc'd) on all visa letters.

3.2.3 Airport Transportation, Including Provisions for Bike Transportation

a) An athlete's first and last impression of an event is their ease of getting to and from the airport. Dedicated bus service should be planned with special provisions for bike transportation.
b) Encourage pre-booking and pre-paid transport. This must be managed carefully so no one is left stranded at their pick-up point.
c) Accredited athletes should be provided with free 'in-city' public transportation.
d) The transportation company should be familiar with transporting people with a disability and their equipment.
e) Depending on the level of the ITU event, airport transfers must be provided free of charge for Elite athletes and accredited coaches along with their bikes. This service is determined inside the specific LOC requirement document and the event agreement.
f) The waiting time of an athlete at the airport should not be more than 30 minutes and the expected waiting time should be communicated to the athletes in advance.

3.2.4 Event Information Booths

The event information booths are the main information points of reference for the athletes and team officials.

a) An information booth should be set up in the following locations:
   - At the airport to greet and assist arriving athletes, coaches and other personnel;
   - At the athletes' registration area;
   - At the event's official hotel;
   - At the athletes' area (venue) during pre-event course familiarisations and on race days.
b) The athlete services team should be knowledgeable about the course, the event schedule and local city information. They should have the contact information of the key LOC staff, Technical Delegate, Team Leader, Medical Delegate and Media Delegate in case that they need any clarifications.
c) The booth (except the one at the airport) should be equipped with athletes' information boards for posting at least the following information:
   - Weather updates;
   - Water temperature updates;
   - Event timelines;
   - Course maps;
   - Host city transportation maps;
   - Bike mechanic and massage times and contact details;
   - Training information;
   - Athletes' arrival and departure information;

- Any competition updates and results.

d) The athletes and the team officials should be able to find at the booth:
   - Lost and found.
   - Language services.
   - Free WIFI (if possible).

e) The athletes' services information booth should additionally manage:
   - The bookings at the training venues (if applicable); and
   - Airport transfers changes.

TIPS

Remind the athletes to check in at the athletes' information booth for any event updates.

3.2.5 Accommodation services

a) A host hotel has to be identified where the LOC and the ITU office will be located.
b) Host hotel and other accommodation information must be posted on the ITU website at least three months in advance (The LOC must provide contact information for more than one price option).
c) Self-catering accommodation information must be posted on the ITU website as an option at least three months in advance as many athletes prefer reasonably priced accommodations with kitchens.
d) Accommodation proposed should allow bikes in the room or a suitable secured indoor storage area.
e) Approved home stays can be offered.
f) Depending on the ITU event, accommodation subside or rooms free of charge must be provided for Elite Athletes. This service is determined inside the specific LOC requirement document and the event agreement.

LINK

3.2.6 Medical services

a) The LOC is responsible to provide race medical services free of charge to the athletes as outlined in Section 6.3;
b) Any athletes' treatment on site should be free of charge for any cases occurred during official activities and/or competition. This includes the athletes' transportation with the ambulance from the course to the venue and from the venue to the hospital.
c) The LOC must contact their national health authority and clarify the procedure of having a foreign athlete or official being treated at a local hospital. This information (certificate of insurance coverage, payment method etc.) should be clearly communicated to all the participants. An injured athlete should not be denied medical treatment because of medical insurance issues;
d) The LOC must check with the national health authority to find out what the procedures are for allowing team doctors to treat their athletes/ patients in the event's country. Like above, this information has to be shared with all the delegations;
e) Additional to the above, any specific vaccination requirements for entering the country must be communicated to all parties;

3.2.7 Training services

a) The LOC should provide several training facilities for all the participating athletes prior to their competition.
b) A key factor to determine is the number of athletes who will use this service and the available training sites in the area.
c) Quite often in big competitions (World Championships, Continental Championships, Multisport Festival) different training sites are provided for Elite Athletes (Elite/ U23/ Junior/ Youth/ Paratriathlon) and AG Athletes.

d) If a booking system needs to be established it should be based on a first come first served scenario;
e) The LOC should provide:
   - Training sessions in a swimming pool;
   - Training sessions at a 400m track;
   - Bike trainings on a suggested route, which is safe for the athletes.
f) Both bike and run courses, as well as training routes should be clearly marked for the athletes to go around the course in the week preceding the event. Signs alerting the drivers of the cyclists' presence should be displayed along the routes. Signs must be a minimum of 60cm by 80cm

Picture 3: Caution Cyclist Signage (ITU, 2019)

g) If the course is not available due to safety reasons, it has to be clearly communicated on the event's website and in the athlete's guide.
h) Depending on the level of the ITU event, training sites' access must be provided free of charge for Elite Athletes. This service is stated in the specific LOC requirement document and in the event agreement.

LINK

TIPS

Provide the course layout on a file compatible to a computer trainer or equivalent [3DC File (.3dc)].

3.2.8 Access to the Swim, Bike and Run Courses for Familiarisation

The LOC should give the athletes the possibility to train on the official course in a totally secure environment with road closures.

a) The swim course familiarisation should be planned as close as possible to the event's conditions (start time, tide table, current). It is recommended to provide at least one swim course familiarisation opportunity for the athletes. The athletes must be separated into 3 groups (sprint/standard triathlon) and each group must be given a different swim familiarisation opportunity:
   - Elite/ U23/ Junior
   - Paratriathlon

- Age-Group

b) A bike course familiarisation is mandatory for all event. If there are limitations on the road closures, police escorts can be provided instead. In this case, the LOC needs to ensure continuous athletes' movement. The athletes must be placed between LOC cars. The personnel sitting in these cars should have radio communication among them and with the police. In each of these cars an ITU official must be located. The front car will give the speed of the group and adjust according to the instructions of the last car. Police should only guarantee the continuous athletes' movement. Athletes' management is the responsibility of the LOC and the ITU officials.
c) If the race day conditions are different than the ones during the bike familiarization (e.g. rain on race day), the provision of allowing to the elite athletes a 20 min bike course familiarization prior to the athletes' lounge check in, should be considered in the events' schedule. The TD should sign off the final proposal.

3.2.9 Warm up Opportunities

The athletes should be provided with the appropriate conditions to prepare properly for the competition. This includes:

a) An athletes' preparation area with an adequate size of athlete's lounge (see dimensions in the venue operations sections) and an appropriate space around it with auxiliary bike racks, a turbo trainer area and a stretching area;
b) Provide a warm up opportunity on the actual courses as explained in the FOP operations section;
c) For the AG athletes, an active warm-up should be offered at the pre-start area. This may include, an active warm-up with a fitness instructor with music.
d) The swim warm-up for the Elite/ U23/ Junior/ Youth/ Paratriathlon athletes should be completed no later than 15 minutes prior to the start.
e) In cases of cold-water conditions, it is important to enhance the athlete acclimatisation. Two options are recommended:
   - Provide in the pre-start area a pump that the athlete can use to pour water on themselves before the start, which is the same temperature as the swim course.
   - Allow the athlete to get in the water and swim for a short period of time (e.g. 2 minutes) to reach the water start line.

3.2.10 Massage and spa

The LOC may provide a free of charge recovery massage (duration up to 10 minutes per athlete) area after the race. If an athlete requires an additional massage service the LOC should be in position to provide the contact details of certified masseurs/ organisation. This service will be at the athlete's cost.

3.2.11 Bike Mechanic Support

The LOC must plan for bike mechanic support during:

a) Athletes' Registration (this service should be available at the place where the registration is taking place);
b) Familiarisation and Competition times (this service should be available at the venue);
c) Transition check-in times;
d) On athletes' request, outside of the above times a bike store should be available to serve the athletes during regular store hours;
e) This service should include free of charge bike maintenance. Any bike parts that have to be replaced need to be covered by the athlete;
f) This service should be available for all the athletes.

3.2.11.1 Paratriathlon: Bike mechanic support for PTWC athletes

a) Welding
   - It is common with the PTWC athletes' race wheelchair to arrive at the hotel damaged from the airport transfer;
   - To manage these cases, the LOC should know where a welder is who has the equipment to fix this kind of damage; and
   - This technician should be on stand-by if a piece of equipment needs welding.
   - The best way to source this is to use local knowledge and build a relationship.

b) Mechanics:
   - A bike mechanic with knowledge of race wheelchairs and hand cycle is a plus; and
   - The LOC is encouraged to identify and build a relationship with either a race chair manufacturer who could provide someone for a few days, or who could train a bike mechanic; or the local wheelchair racing community would be able to identify someone who is very good with race chairs in the local area.

3.2.11.2 Bike rental/ Bike transport for AG

The LOC should offer the possibility to the athletes of renting bikes for the events. Additional to this, a bike transportation service from their house to the venue or their accommodation at the event should be a service that the LOC should investigate for improving the athlete's experience.

3.2.12 Uniform Printing

The LOC should be able to provide the contact details of a uniform printing company upon any athlete's request. The company should be able to print on a trisuit/ swimsuit. This service is at the athlete's cost.

3.2.13 Registration

LINK

a) The registration policy and procedures are clearly defined in the ITU Competition Rules;
b) At the World Championships and Continental Championships, the AG registration can only be conducted by the NFs. It is recommended that the LOC only use the ITU online system and follow the entries deadline and the creation of the start lists. They will have the opportunity to invoice the NFs for the total number of entry fees. In special cases, the LOC can use its own online registration system with the following conditions:
   - It is password protected and accessible only by the NF. The athletes should not be able to enter themselves;
   - It is to be checked and approved by the TD before being released;
   - It can send the participants' list to ITU for data verification following the deadline and ITU to release the final start lists.
c) At the World Championships a registration process should be established between the LOC and the ITU prior to opening registration. ITU will communicate the process to its NFs.

3.2.14 Race Packages

LINK

a) The composition of the race packages is clearly defined in the ITU Competition Rules;
b) The athlete's BIB number for the AG races should be:
   - Waterproof material;
   - Maximum height 200mm / Minimum height 180 mm;
   - Maximum width 200 mm / Minimum width 180 mm;

- If there are athletes racing in different distances on the course at the same time and they might mix on the bike/run course, it is useful to have at least two different background colours for the race numbers to more easily separate the different groups;
- The minimum height of the digits should be 50mm. In case of an athlete's number up to 3 digits, their size shall be up to 80mm high and 15mm thick (maximum).

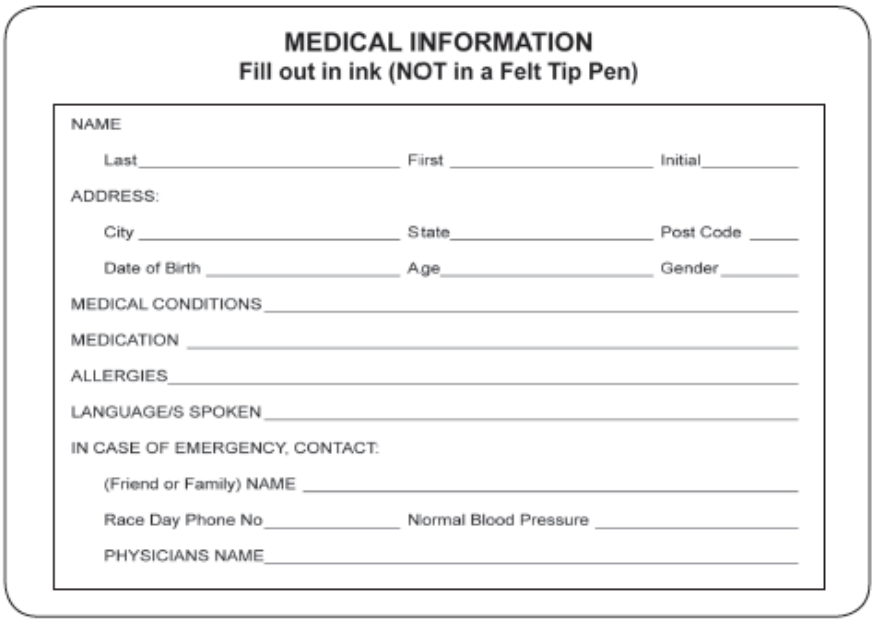
TIPS

Number 13 is not used as a race number

Picture 4: Athletes' BIB Number Sample (ITU World Triathlon Series Grand Final, 2019)

- On the back of the athletes' BIB number there should be space for medical and emergency contact information that the athlete has to fill in

Picture 5: BIB Number Back Side Data Sample (ITU, 2019)



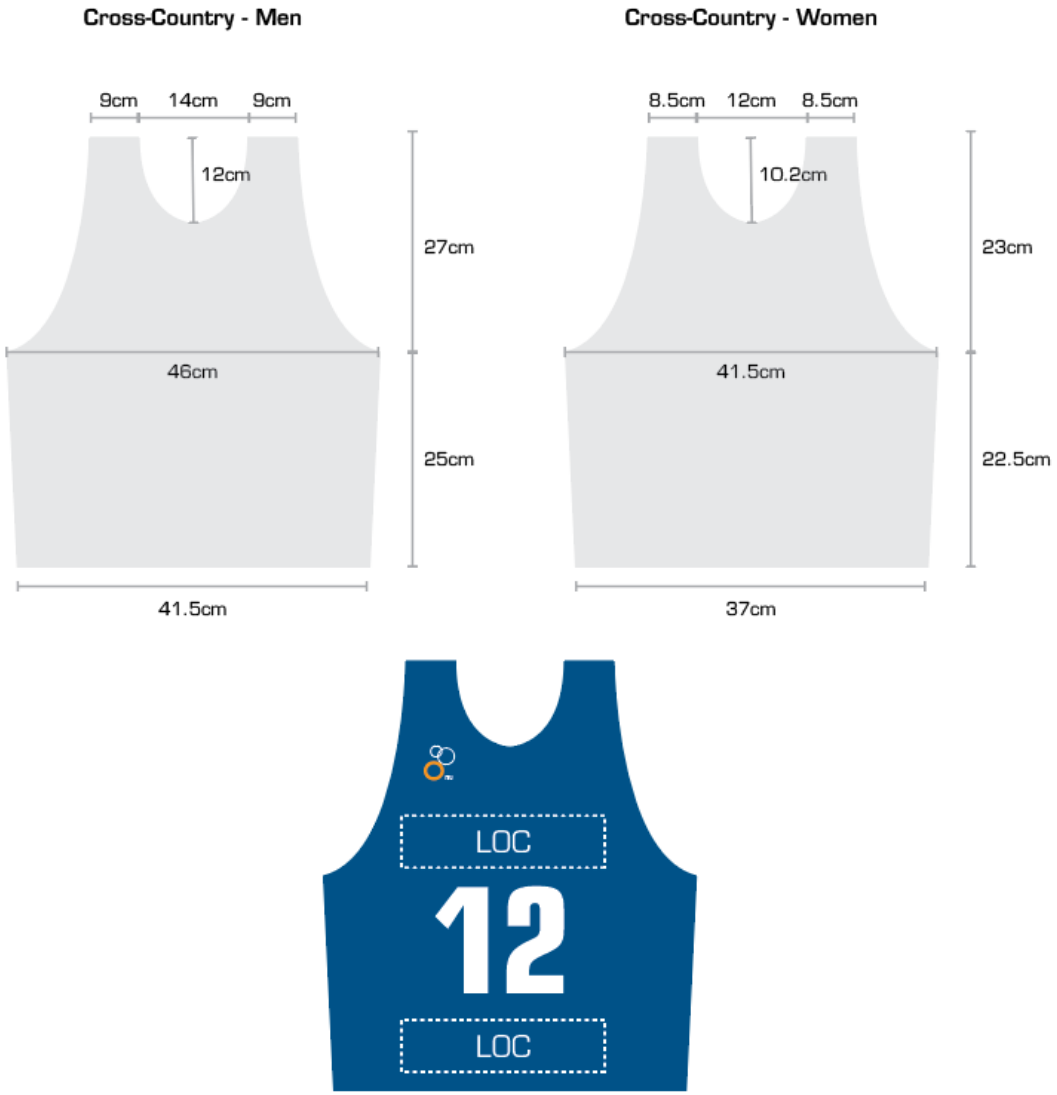
MEDICAL INFORMATION
Fill out in ink (NOT in a Felt Tip Pen)

NAME
Last _____ First _____ Initial _____
ADDRESS:
City _____ State _____ Post Code _____
Date of Birth _____ Age _____ Gender _____
MEDICAL CONDITIONS _____
MEDICATION _____
ALLERGIES _____
LANGUAGE/S SPOKEN _____
IN CASE OF EMERGENCY, CONTACT:
(Friend or Family) NAME _____
Race Day Phone No _____ Normal Blood Pressure _____
PHYSICIANS NAME _____

c) Winter triathlon athletes' vest:
In case of a winter triathlon, the bib numbers are replaced with a vest and have the following specifications:

- Starting bib vest must be assigned as follows and must be cut in such a way that the skier's shoulders are allowed free movement:
  - Ladies size: without elastic band
  - Men's size: without elastic band
- Fabric, material
  - T-shirt starting bibs in smooth material quality 100% Polyester / Interlock or 100 % polyester knitwear (meshed or non-meshed).
- Elasticity (stretch)
  - Meshed starting bibs: measured on a piece of fabric 10 cm wide: Stretch ability in the width 18,5 cm
  - None meshed starting bibs: measured on a piece of fabric 10 cm wide: Stretch ability in the width: 24 cm (see enclosure)
- Design
  - The ITU logo must be positioned on the right-hand side of the vest and should be aligned with the bottom of the v-neck. It should be 4cm wide
  - Bib numbers: The font type must be Eurostile Condensed Bold and must be at least 8cm in height.
  - The Local Organising Committee has two areas for displaying personal sponsors and should not exceed 5cm in height and 15cm in length.

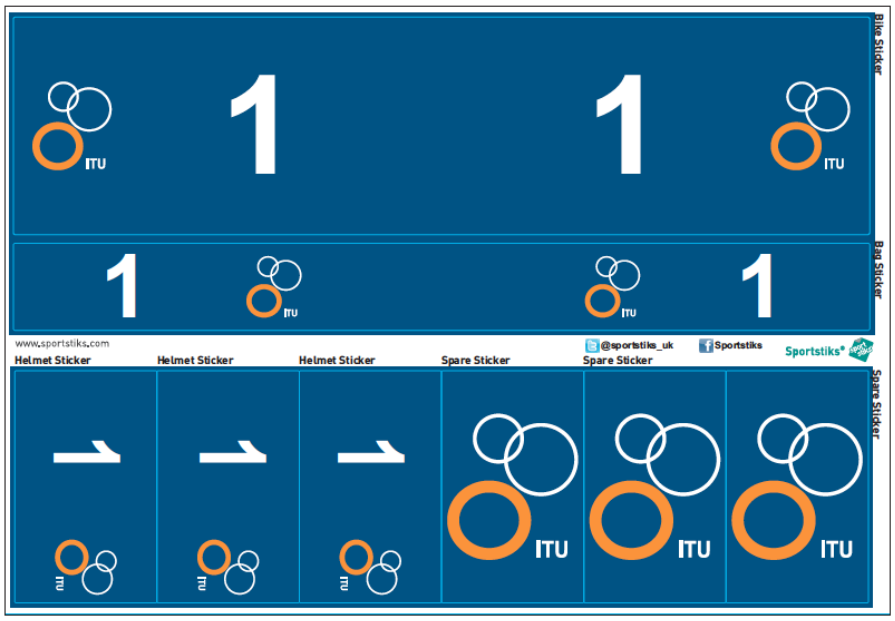
Picture 6: Winter Triathlon Athletes' Bib (ITU, 2019)



d) Stickers: The stickers should have the following dimensions:

- Bike Sticker: 0.75m X 0.3m – Number size: 0.35m x 0.2m
- Bag Sticker: 0.03m X 0.3m - Number size:0.02m x 0.01m
- Helmet Sticker: 0.05m X 0.08m - - Number size: 0.02m x 0.01m
- Ski stickers (only applicable in winter triathlon): 0.05m X 0.08m - - Number size: 0.02m x 0.01m

Picture 7: Athletes' Stickers Sample (ITU, 2019)

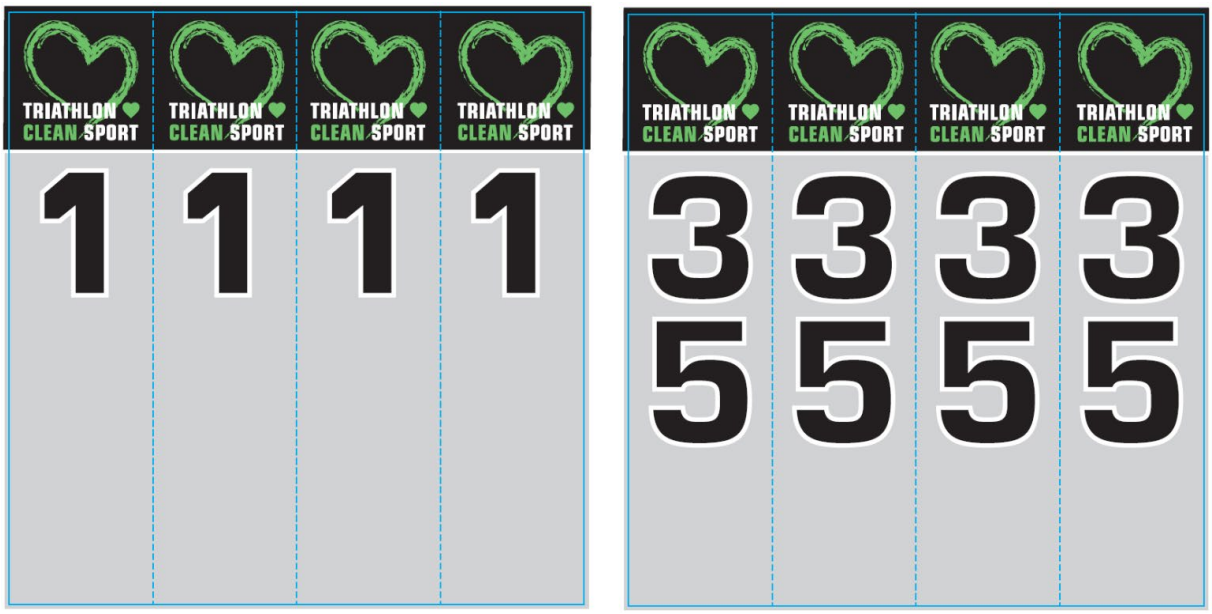


e) Body Decals

For a clean look, it is preferable to provide the elite/u23/junior and paratriathlon athletes with race number body decals for both arms and legs and the AG athletes with race number body decals for both arms and legs for a clean look. The dimensions of the body decals should be:

- 0.03m X 0.2m per piece (in this space you should fit the complete race number no matter the number of figures);
- Alternatively, body marking can be used.

Picture 8: Athletes' Body Decals' Sample (ITU, 2019)



f) Mountain Bike handlebar number plate

In the cross triathlon/duathlon and winter triathlon events, a bike handlebar number plate should be added in the athlete's race package.

The number plate must have the following specifications:

- Waterproof material (plastic or hard paper as card board, or laminated paper);
- Size 0.16m Height x 0.19m Width
- Number size 0.06m x 0.02m

Picture 9: Mountain Bike Handlebar Number Plate Sample (ITU, 2019)

g) Swim Caps

The swim caps should be:

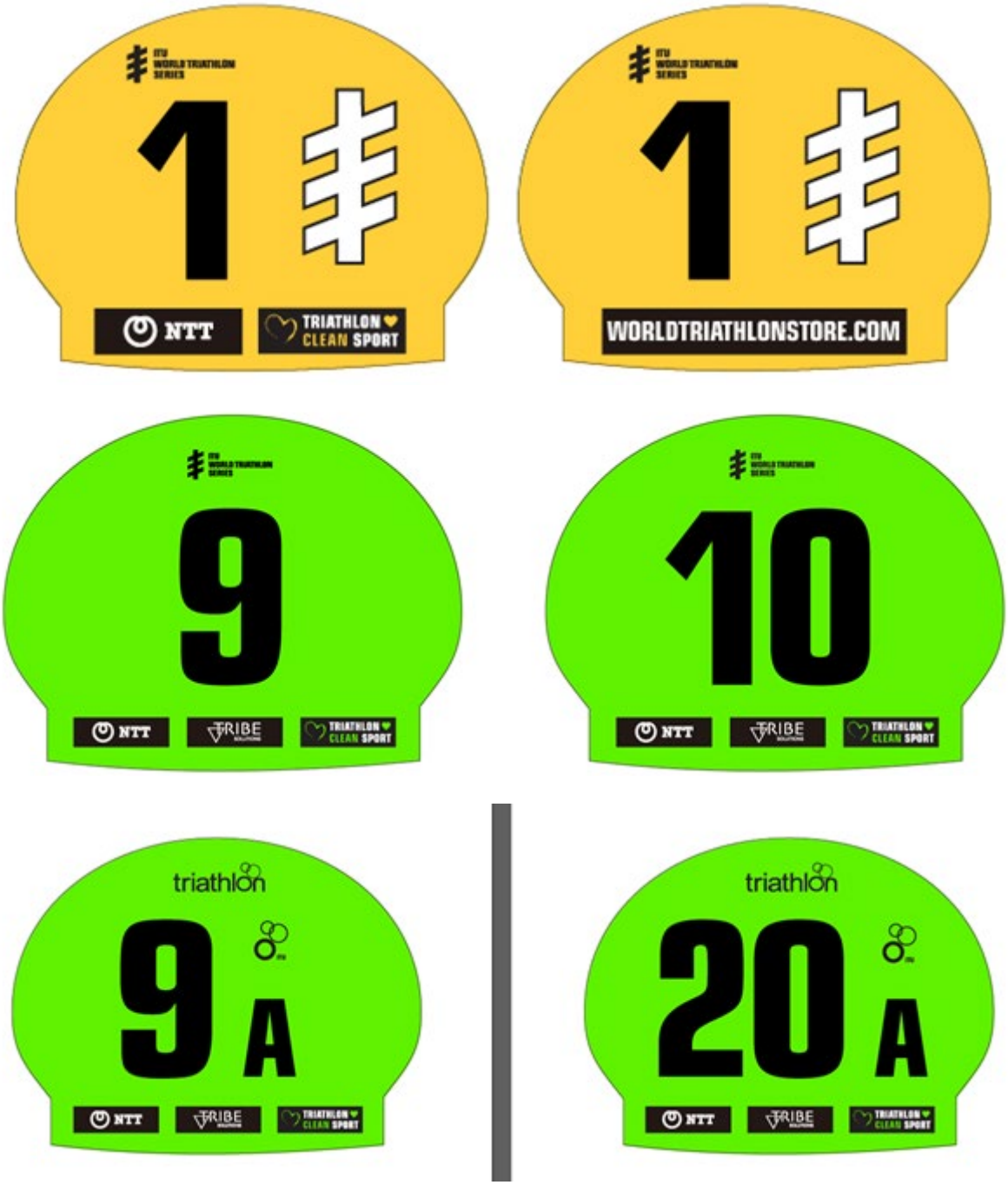
- Preferable made of silicon material;
- Different highly visible coloured per wave (avoid dark coloured swim caps that cannot be visible in the water) -;
- The race number should be included on the swim cap. If not, a wetsuit body decal should be used in case of a wetsuit swim;
- Number size: 0.06m x 0.04m
- In AG races no fewer than 6 different colours of swim caps should be used. Each colour should be assigned to the specific wave on a rotation basis for better monitoring of the athletes in the water.
- Paratriathlon:
  - The paratriathletes will be requested to give their swim cap colour preference at the Athletes' Briefing according to the level of assistance that they require at the swim exit. The swim caps have to be marked with the race number of the athlete after the Athletes' Briefing takes place, preferably using a stamp.
  - The below estimation is based on the maximum quota per category, according to the Qualification Criteria (ITU Website, Qualification Criteria).

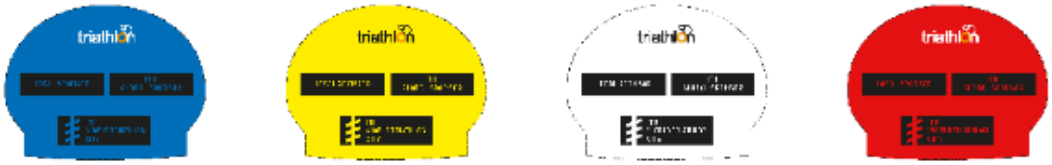
Table 19: Paratriathlon swim caps estimation (ITU, 2019)

Red Swim Caps	Equal to the maximum PTWC slots + 50%
White Swim Caps	Equal to the maximum PTVI slots + 50%
Orange Swim Caps	Equal to the maximum PTVI slots

Green Swim Caps	Equal to the SUM (PTS2 + PTS3 + PTS4 +PTS5) slots
Yellow Swim Caps	Equal to the SUM (PTS2 + PTS3 + PTS4 +PTS5) slots

Picture 10: Athletes' Swim Cap Sample – Elite, Mixed Relay and Age-Group (ITU, 2019)

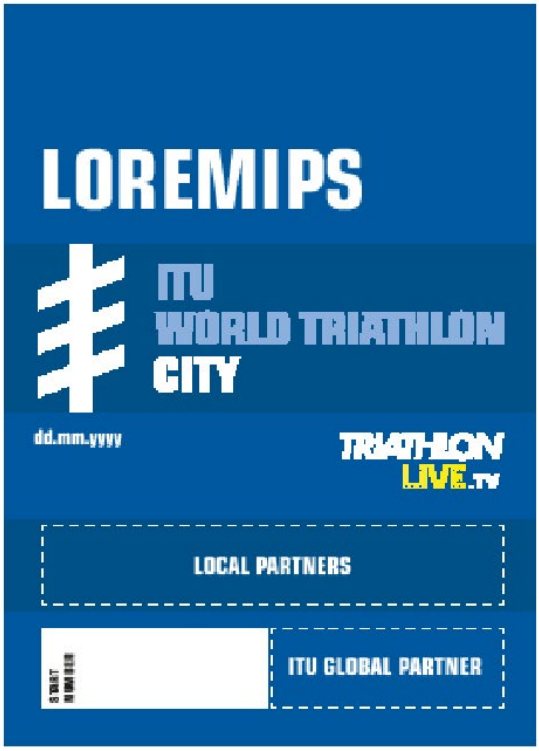




h) Kit Bag

It is required that the kit bag/goodie bag is made of a resistant material so that the athletes can reuse the bags.

Picture 11: Athletes' Bag Sample (ITU World Triathlon Series, 2018)



i) LOC Gift

It's common to offer an event T-shirt to all the participating athletes; this gift may be replaced with another piece of equipment such as a backpack or towel. The proposed sizing breakdown of an event T-shirt is:

Women	Men
20% X Small	20% Small
40% Small	40% Medium
30% Medium	30% Large
10% Large	10% X Large

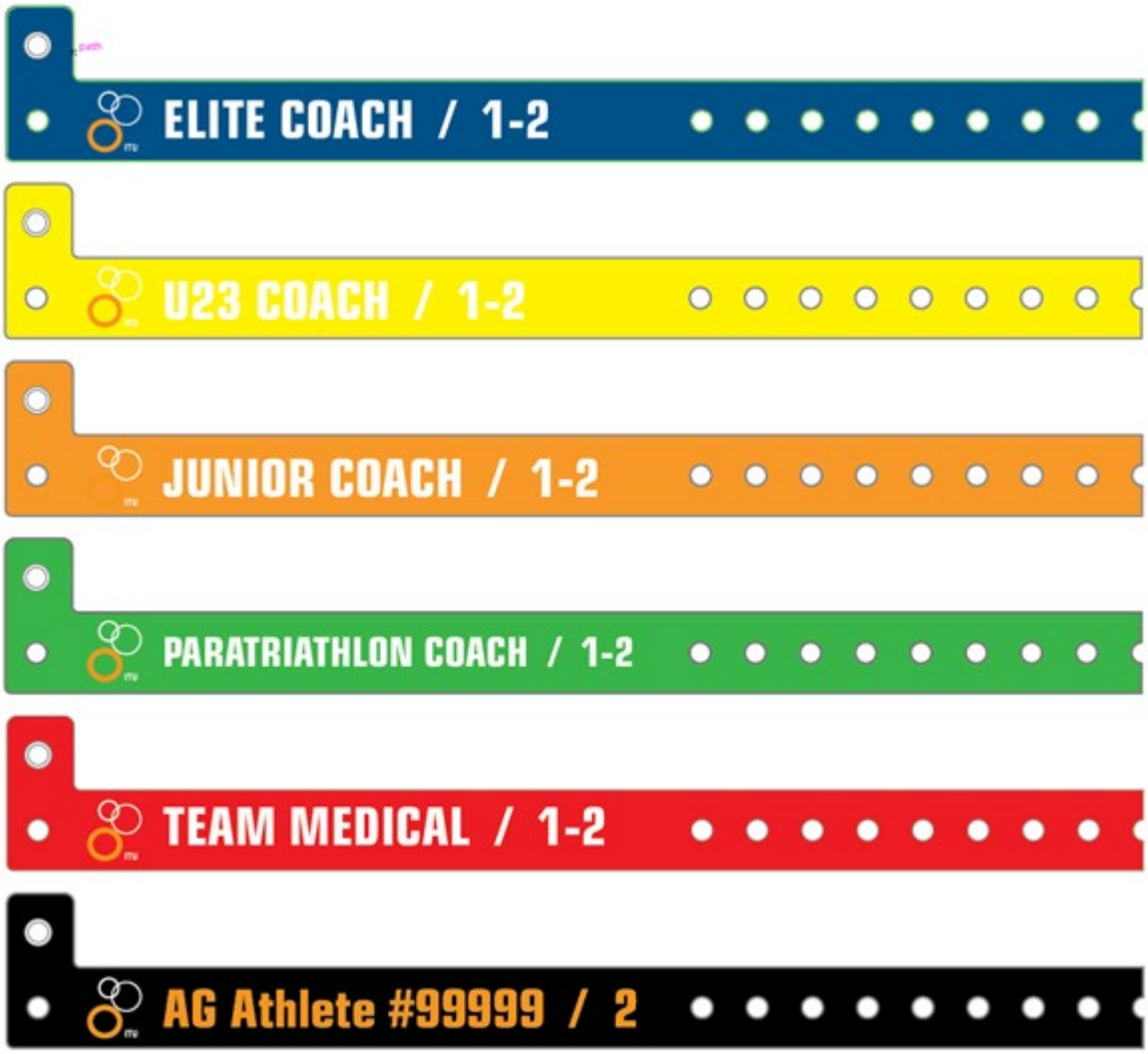
It is recommended during the registration process to ask the size of the athletes.

j) Accreditation Cards/Wristbands

Elite/U23/Junior/ Youth /Paratriathletes are entitled for an accreditation card. Paratriathletes' guides and personal handlers should be offered an accreditation card as well. More information about accreditation can be found in section 2.17 -

Each AG athlete should be provided with a specific coloured wristband that preferably includes the race number.

Picture 12: Accreditation wristbands (ITU, 2019)



In events with multiple AG races, each race should have a different colour wristband for better management of athletes.

In the case of middle/long distance events, a check-out voucher must be included in the athlete race package to allow another person beside the athlete checking out the athlete's bike from the transition zone. This system is recommended for all AG disciplines and distances.

k) Gear bags

Depending the type of event (e.g. middle/long distance event), you may need to provide additional gear bags for equipment or special needs station deposit.

- Up to five kit bags need to be provided for the event:
  - Blue kit bag - Bike Bag: to include the clothes to be used during the bike segment, and to add the swim gear after finishing the segment;
  - Red kit bag - Run Bag: to include the clothes to be used during the run segment, and to add the bike gear after finishing the segment; and
  - Green kit bag - Dry Clothes Bag: to include the clothes to be used after the race
  - White kit bag - Bike special need bags: to include any equipment/nutrition to be used during the bike segment

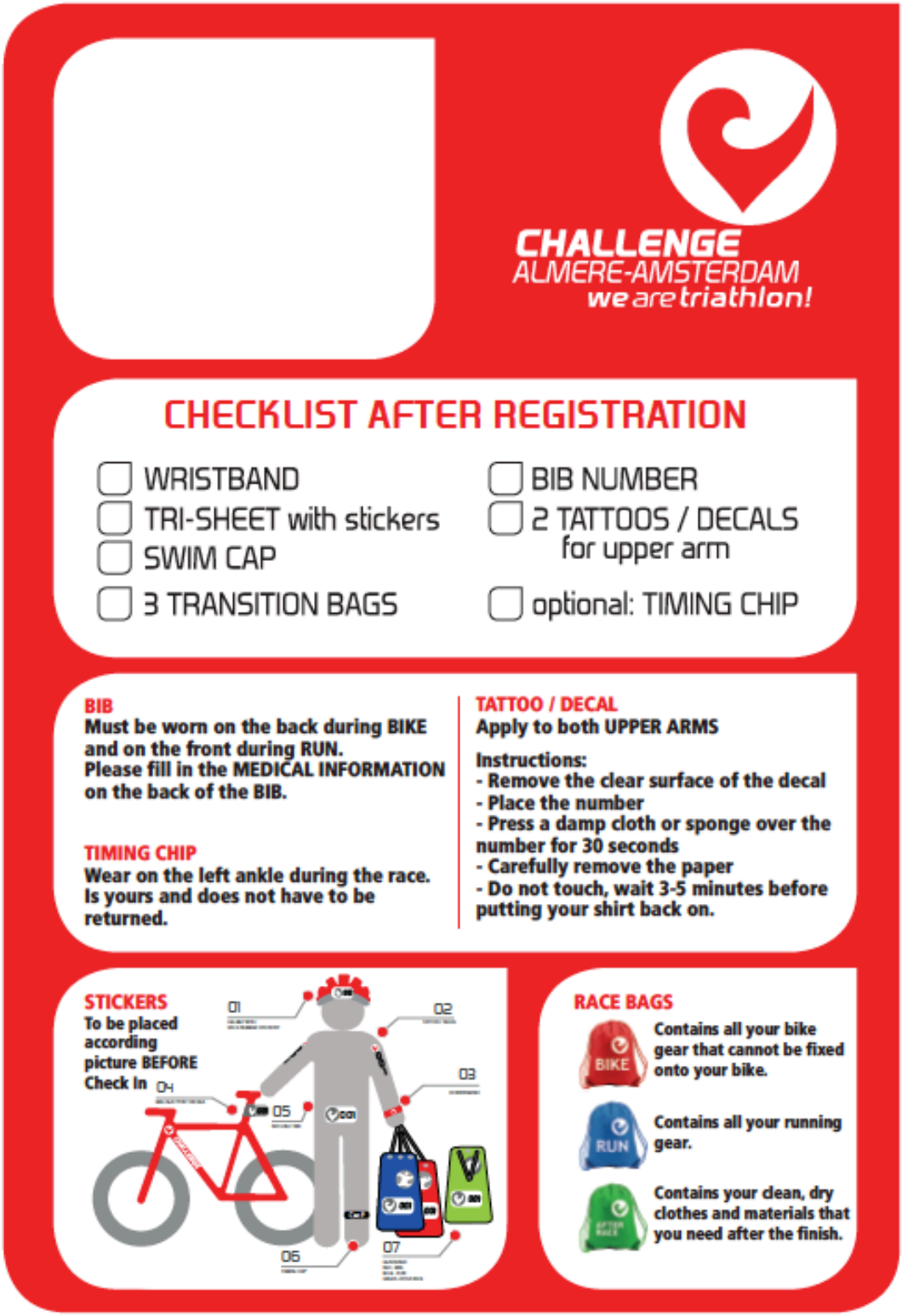
- Orange kit bag - Run special need bags: to include any equipment/nutrition to be used during the run segment
- Please refer to the FOP operation section for further information

Picture 13: Athlete's kit bag (Pontevedra Multisport Championships, 2019)

l) Race package envelopes
It Is recommended to produce and deliver the athlete's race package in an envelope with the key athlete's package Information printed on top, such as:

- Bike check-in/check-out timelines
- Instructions on how to place athlete numbers
- Swim cap instruction
- Timing chip instruction
- Wristband
- Gear bag information
- Equipment checklist

Picture 14: Race Package Envelope Sample (Challenge Almere-Amsterdam, 2018)



m) Race Package Distribution
The race package distribution/ pick-up timelines are defined in the ITU Competition Rules; The Elite/ U23/ Junior/ Youth/ Paratriathlon athletes should pick up their package after the athletes' briefing;

- For World Championships and Continental Championships events, the AG group athletes should collect the race package during a specific time slot allocated to their nation. This process has to be followed to control the volume of the athletes and avoid long queues.

The athletes' kit components have to be approved by the TD.

Table 20: AG Race Package Distribution Sample (ITU World Triathlon Edmonton Grand Final, 2014)

AGE GROUP STANDARD REGISTRATION

Country	Date	Time		Country	Date	Time		Date	Time
Australia	Aug 28th	12:30 - 13:30		Australia	Aug 29th	12:30 - 13:30		Aug 30th	07:00 - 10:00
Bangladesh	Aug 28th	16:00 - 16:30		Bangladesh	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Belgium	Aug 28th	16:00 - 16:30		Belgium	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Bermuda	Aug 28th	15:30 - 16:00		Bermuda	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Brazil	Aug 28th	16:00 - 16:30		Brazil	Aug 29th	15:30 - 16:00		Aug 30th	07:00 - 10:00
Cameroon	Aug 28th	16:00 - 16:30		Cameroon	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Canada	Aug 28th	09:30 - 11:00		Canada	Aug 29th	09:30 - 11:00		Aug 30th	07:00 - 10:00
Cayman Islands	Aug 28th	16:00 - 16:30		Cayman Islands	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Colombia	Aug 28th	16:00 - 16:30		Colombia	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Cook Islands	Aug 28th	16:00 - 16:30		Cook Islands	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00
Denmark	Aug 28th	16:00 - 16:30		Denmark	Aug 29th	16:00 - 16:30		Aug 30th	07:00 - 10:00

3.2.15 Briefings

a) For the pre-race briefing requirements and the policy and procedures please refer to the ITU Competition Rules;
b) In cases where an AG Athletes' Briefing is conducted, two different type of briefings preferably should be provided:
   - 1 for beginner athletes;
   - 1 for experienced athletes.
c) If a briefing is conducted, it is required to provide a room big enough to accommodate the number of athletes and coaches who are required to attend it. For the AG races, you should plan briefings for no more than 400 participants per session.

d) In the Elite/U23/Junior/Youth/Paratriathlon briefings' the following should be provided:
   - Auditorium set up;
   - Space outside the briefing room for 3 different check-in areas (women, men and team medical/team coaches);

- Secured internet connection;
- Refreshments for all the athletes;
- Head table with 6 chairs and a speaker's podium. The table should be skirted with ITU branding (provided by ITU);
- PA system and AV projector.
- 6 knowledgeable volunteers.
- A suitable area for athlete interviews with ITU backdrop.
- The area should be secured with enough security personnel.
- The area should be wheelchair accessible.
- A bike storage should be available.

e) The ITU Officials involved in Elite/U23/Junior/Youth/Paratriathlon briefings should have the following administrative support:
- 2 tables per registration area;
- Athlete packages organised in race number order.
- 4 copies of start lists for checking athletes.
- Athletes sign-in sheet.
- 100 pens for athlete's use.
- Athletes' agreement (supplied by ITU) (if applicable).
- 2 copies of accredited coaches list and coach/manager sign-in sheet.
- 2 copies of accredited medical personnel and corresponding sign-in sheet.
- 2 large sets of course maps.
- Athletes' medical waivers (if applicable).
- Tape/staples and other miscellaneous office supplies.

3.2.16 Paratriathlon briefing – specific information

a) The classification process should be completed before the athletes' briefing. For this reason, try to have the briefing in the evening, the day before the race. The time of the briefing has to be approved by the TD.
b) The Paratriathletes registration process and briefing's procedure are defined in the ITU Competition Rules.
c) All guides and handlers must be registered at the briefing.
d) Credentials must be distributed to the registered personal paratriathlon handlers and athletes.
e) Tickets for opening and closing ceremonies are also to be included for handlers and guides.
f) The Paratriathletes' briefing is compulsory for all the athletes.
g) Following the Paratriathletes' briefing, a handlers' meeting shall be conducted.
h) The briefing room should be wheelchair accessible.

3.2.17 Results Posting

It is important to post the unofficial results immediately after the events for the athletes to be able to review them and protest if needed. The unofficial results should be posted at the:

- Recovery area;
- Registration area;
- Athletes' area;
- Official hotel;
- Expo area
- Location of the medal ceremonies (if different than above).

3.2.18 Local Tourism Services

It is quite common for the AG athletes to combine racing with tourist activities. Therefore, it is recommended to provide a tourism information booth with relevant local information. It can be available near to the Athletes' Information Booth.

3.2.19 Special athletes' local deals

It is highly appreciated by the participants if there are discounts/ offers at local stores (bike stores/ restaurants etc.).

3.2.20 Updated event website

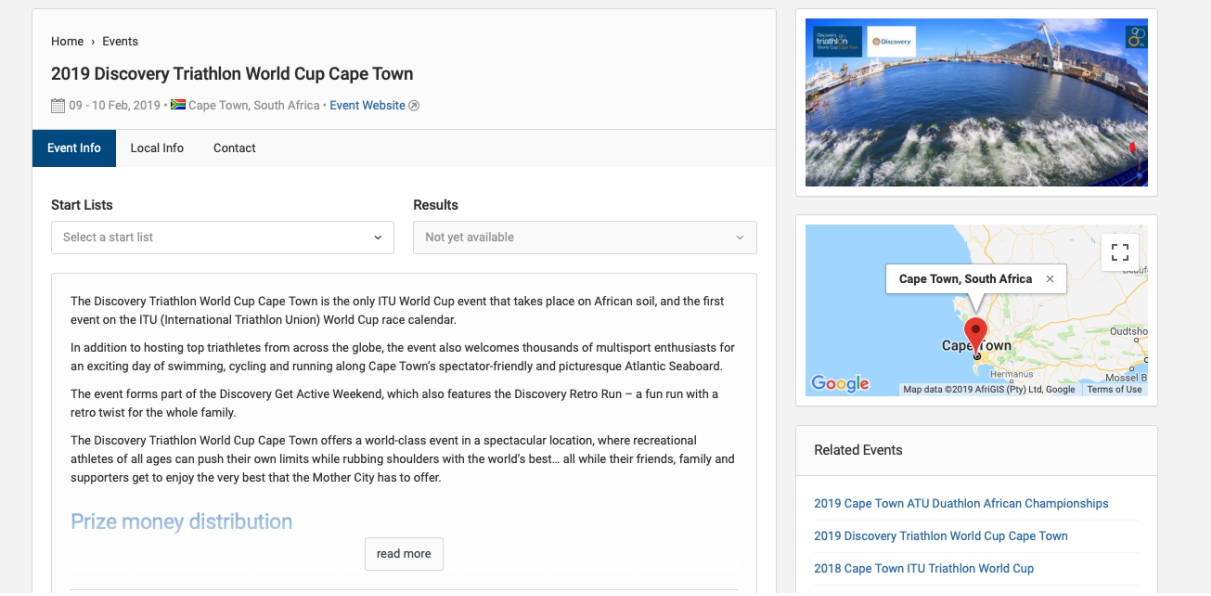
a) All up to date athletes' information should be available on the event's website. ITU offers an event's page for each event for basic information. If the LOC wants to create its own website this needs to be linked to the ITU website. The password for the ITU page will be sent to the LOC contact by ITU as soon as the event is confirmed; If contradictory information exists between the ITU and the LOC website, the information on the ITU page, is the official one;

TIPS

In case of updates, make sure it is reflected in all printed and web based materials.

b) The website should include all the information of every aspect of athletes' services;
c) The LOC may make a provision of a newsletter registration form so that they can keep all their clients up to date on all information;

Picture 15: ITU Event's Webpage Sample (ITU Website, 2019)



d) It's important to include up to date high-resolution maps on the ITU website with all the key athlete areas and course details (aid stations, wheel stations, penalty boxes, coaches' areas);

Picture 16: High Resolution Map Sample (ITU World Triathlon Gold Coast Grand Final, 2018)

LINK

e) An excellent tool to help the athletes properly prepare for the race is to include a video from the bike course for the athletes to review. A sample of ITU World Triathlon Edmonton Grand Final, 2014 video can be viewed here.

f) Finally, a Q&A section should exist on the website with the most frequent asked questions received from the athletes and national federations;
g) All race specific and athletes' services information should be approved by the TD.

3.2.21 Athletes' Guide

The minimum athletes' guide requirements are:

a) Course maps with accurate distances;
b) Rules clarifications: swim, bike, run, uniform, timing, anti-doping, etc.;
c) City maps, specific to the event;
d) Event Schedule and Event Locations (please ensure that this is accurate – including check-in and warm-up times for all athletes);
e) Athlete transportation details, times and contacts;
f) Training facilities: telephone, address, map, hours available;
g) City information – i.e. emergency numbers, phone information;
h) Public transportation information;
i) Restaurant information;
j) Car rental information;
k) Tourist attractions;
l) Medical clinics and local hospitals;
m) Local entertainment;
n) Airline telephone numbers;
o) Assistance for family members travelling with athletes, i.e., facilities for children and tourist information.

The content of the athletes' guide should be approved by the TD.

3.2.21.1 Age Group Athletes' Guide

Below is a proposed content for an AG Athletes' Guide:

a) Welcome Letters and Introductions: ITU, LOC, City, NF etc.
b) Important information
- Contact information: LOC, ITU team + Head Referees
- Athletes' Guide updates

c) General
- Schedule
- Venue + general map (important locations)
- Auxiliary Event Information: Parade of Nations and Opening Ceremony
- Bike shops and maintenance
- Massage
- Transport
- Venue Parking
- Expo area
- Anti-doping information
- Race rules and penalties (including Uniform rules)
- Inclement weather
- Spectator information

d) Pre-race information
- Training sites
- Package pick up (including NF Registration Times)
- Race package
- Athletes` Briefing
- TOs Q&A Sessions for AG (if applicable)
- Bike and gear check in
- Timing

- Additional Paratriathlon information

e) Race day information
- Start times
- Transition area
- Uniform check
- Gear bag drop/collection
- Swim bag drop/collection
- Swim course
  - Course description
  - Water quality (results of the water quality tests from the 2 months before the event)
  - Swim Warm up
  - Wave starts
  - Cut off time
  - Wetsuit ruling / speed suits
  - Swim rules
- Bike course
  - Course description
  - Cut off time
  - Bike rules
- Run course
  - Course description
  - Aid stations
  - Cut off time
  - Run rules
- Cut off times
- Race day services
- Contingency plan

f) Post race information
- Finish line
- Recovery area
- Massage
- Bike and gear collection (bike ticket check-out)
- Results
- Photos
- Medal Engraving
- Prize money if applicable
- Awards (process if un-attendance)
- Closing Ceremony
- Lost and Found

g) Volunteers and Technical Officials

3.2.22 Fan Zone on Bike and Run Courses

Competing in events where athletes are cheered by spectators enhance the athletes' experience. The LOC is invited to set up fan zones along the courses where special events can take place (e.g. DJs, music, cheerleaders, video screen, food and drinks, personal message signs) for attracting spectators to support the athletes.

3.2.23 National Federation Zone

LOC can also offer NFs a tent close to the finish line. NFs should register to the LOC prior to the event (first come, first serve).

3.2.24 Finisher Medal

In AG races, the LOC should offer a finisher medal. The artwork should clearly identify the event.

3.2.25 Personalised race photos/videos

Athletes' personalised photos and videos should be available to the AG athletes for enhancing the athlete's experience. LOCs are advised to mandate specific companies offering reliable services. The positions of the photographers or any other remote equipment must be approved by the TD. Please note that this service is not for elite competition.

3.3 ITU / VIP / Sponsor Services

3.3.1 Servicing

The ITU / VIP / Sponsor Hosting Plan will meet the following minimum requirements:

a) Appoint a Sponsor Service Team;
b) A VIP Venue host/hostess team who has full knowledge of the event should service the VIP tent. The VIP tent should have a full food and beverage menu and must be approved by the ITU;
c) Arrange VIP Airport Transportation (Pick-up and Drop-off);
d) Provide event information package;
e) Arrange VIP Transportation to all social functions as required;
f) A supply of sunscreen and bug spray should be available;
g) Guest lists should be developed in co-operation with ITU.

3.3.2 Sponsor Packages

(to include)

a) VIP (and guest) Accreditation for the event;
b) Event information;
c) Invitations and reservation package instructions for all special functions;
d) Transportation instructions for all events and Vehicle Permit Passes for their vehicles, for the VIPs to be dropped off close to the venue;
e) Sponsor thank you gift;
f) Special VIP gifts, with local flavour;
g) VIP packages should be attractively wrapped when distributed.

3.3.3 ITU VIP Protocol

a) Secure ITU President's message for event program and athlete booklet;
b) Plan airport pick up and drop off for ITU President, Executive Board members and staff (if applicable);
c) Ensure welcome package and event information is provided at the host hotel;
d) Plan transportation to race venue;
e) Plan a full-service hospitality venue at race site;
f) Seek ITU approval for medal presenters;
g) Provide appropriate VIP accreditation as per ITU accreditation template;
h) Plan a welcome reception for ITU representatives and local VIPs;
i) Provide tickets to all functions to ITU Executive Board and staff.

3.3.4 Medal Ceremonies- VIP & Sponsors Involvement

a) Public authorities, VIPs or representatives from a top -level sponsor organisation should be considered as presenters;

b) Medal presenters for the Elite Athlete medal ceremony to be decided by the ITU and LOC;
c) At least one medal presenter should be of a different gender;
d) The details of the medal ceremony are described in the ITU Sport Presentation Manual in Section 6.9.

MAIL ITU

The final VIP/ Sponsors Services plan has to be approved by the TL (if assigned) or the TD.

3.3.5 Event Application

It is recommended to the LOC to create or use an event app that will engage the athletes and the fans so that they will have the best event experience. With the application the services below may be included:

- Live tracking of all participants
- Live leaderboards and rankings
- Direct communication with all users
- In-App Live video stream
- All event information
- Sponsors information

With this tool, athletes' services will be enhanced, the sponsor value will be increased and the event exposure will be multiplied.
There are companies that provide this service to events.

3.4 Technical Officials Services

3.4.1 General

a) The total number of TOs officiating at an event will be determined and agreed on between the TD, the LOC and the NF. The TO assignments will be finalised by the TD;
b) The LOC has to appoint a person responsible for the Technical Officials Services. This person should be the liaison between the LOC and the Technical Officials.
c) The overall services should be agreed among the LOC, the National Federation and the TD.
d) The LOC should provide the TOs with the following:
   - Free airport transportation;
   - Welcome package;
   - Event T-shirt;
   - Full board accommodation (upon agreement);
   - Food and beverages during working hours;
   - Tickets for the Opening and Closing Ceremonies;
   - Tickets for the Pasta Party; and
   - Transportation to and from the Venue.
e) The LOC should include the TOs on the Event's Newsletter recipients' list.

3.4.2 ITU Officials Services

LINK

a) The provision of accommodation and transportation for the ITU officials is defined in the specific events' LOC Requirement document and LOC events' agreement;
b) Vehicles: 1 car available for the TD and the ITO Team;
c) Cell phone with a local SIM card should be provided to each one of the ITU Core Team members;

d) A working space should be available for the ITU officials at the Official hotel with the following:
- High speed internet connection w/router;
- International Phone access;
- Photocopying machine;
- Desk space for at least 8 people;
- Paper and envelopes;
- Notice board;
- Miscellaneous office supplies.

3.4.3 TOs' Equipment List

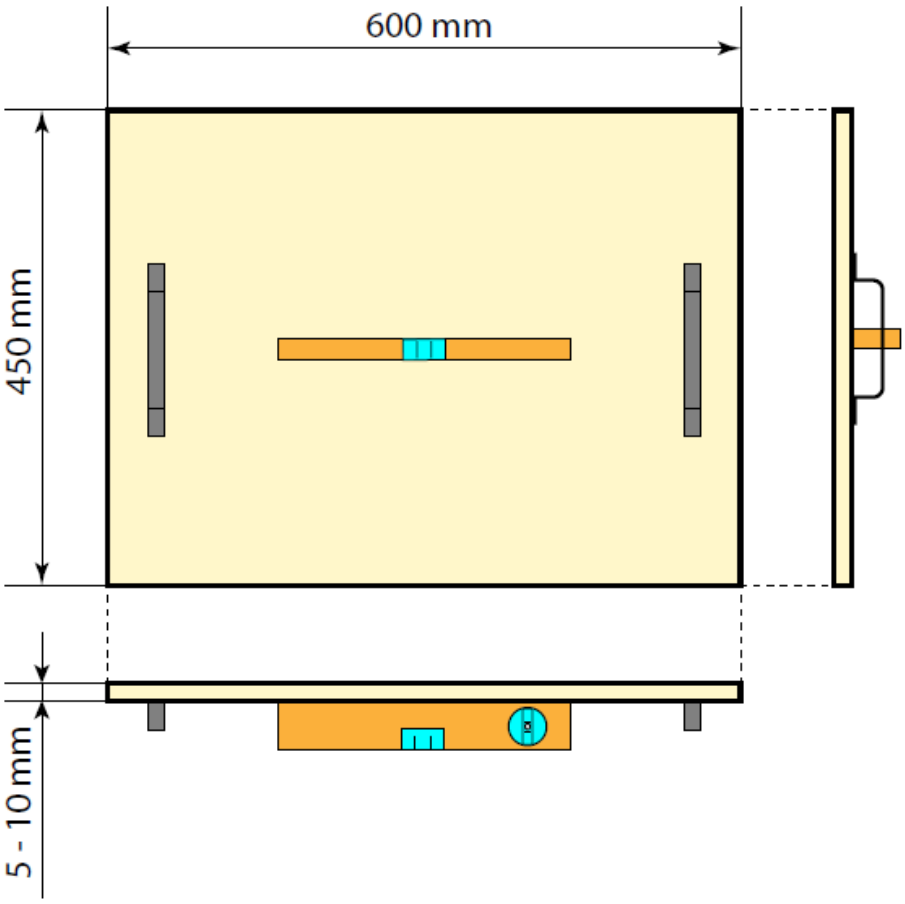
The LOC will provide the ITO team with the following:

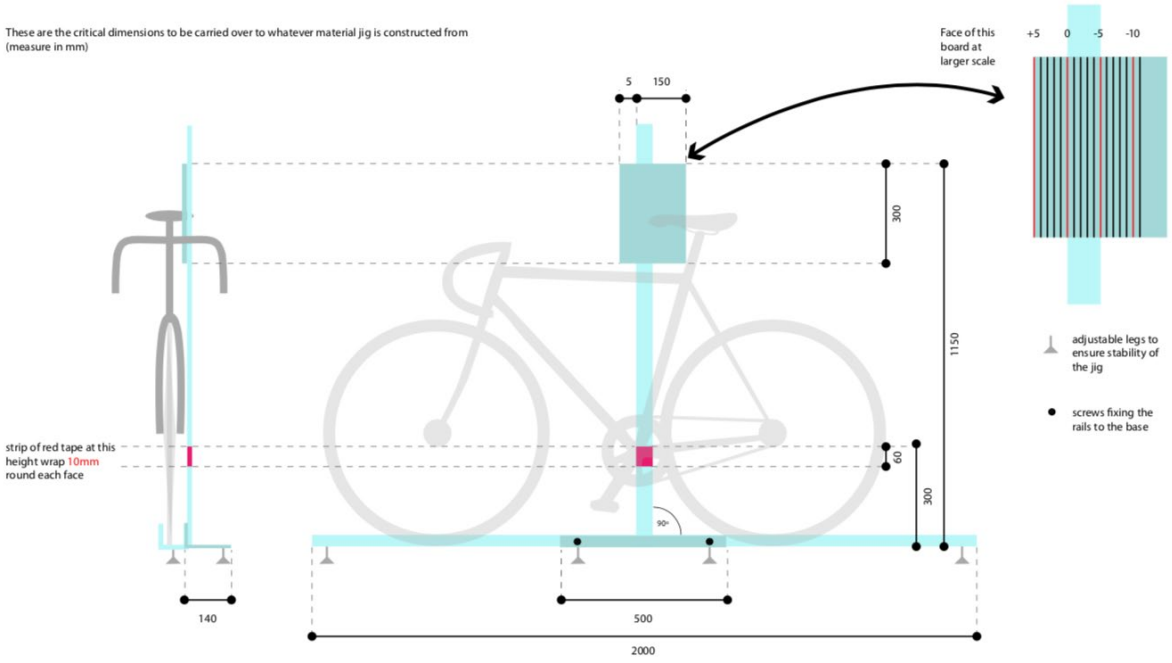
Table 21: TO's equipment list (ITU, 2019)

Item	Quantity	Responsible
Accreditation	1 x TO	LOC
Air horns	2	LOC
Bell	1	LOC
Bike specifications' tool	1	LOC
Body markers	5	LOC
Clipboards	6	LOC
Course Maps	1 x TO	LOC
Electronical Start System + Microphone for the starter	1	LOC
Equipment for the Athletes' lounge (- Sun cream - Bucket & Sponges, Towels x2 - Sewing kit - Permanent Markers - 2 duct tapes (hard one for ambush marketing) - Towels - Pens - Water - Alcohol - Cotton pads and - Some garbage bags)		LOC
Event Information Booklet	1 x TO	LOC
Finish tape	1	**LOC**
GPS	1	LOC
Grid map	1 x TO	LOC
Handlebar check board 60CM X 6CM (HARD BOARD)	1	LOC
Lap counting boards	1 set	LOC
Laminator + sheet	1	LOC
LOC T-shirts	1 x TO	LOC
Motor bike with helmets	TBD	LOC

Mountain bikes with helmets	2	LOC
Notice Board Athlete's Lounge and dry markers	1	LOC
Opening/closing ceremony tickets	1 x TO	LOC
Penalty Box Boards with numbers and codes	1	LOC
Pencils/ notice books	1 x TO	LOC
Phone List	1 x TO	LOC
Photo camera	TBD	LOC
Post-finish violation board and dry markers	1	LOC
Radios and headsets	25	LOC
Red Flags	10	LOC
Scooters or electronic bikes with helmets	TBD	LOC
Stop watches for Penalty Boxes	3	LOC
Tablets	TBD	LOC
Tape measurer	1	LOC
Thermometer (appropriate also for water temperature)	1	LOC
Wheel measurement	1	LOC
Meal packages and water (for each race-day)	1 x TO	LOC
Local mobile phones and SIM cards	TBD	LOC

Picture 17: TOs' Handlebar board and Jig specifications (ITU, 2018)





a) Penalty Box board with numbers and letters. For specifications, go to FOP operation section.
b) Miscellaneous:
   - Stationery for the athletes' check In and registration;
   - Duct tape;
   - Felt pens and regular pens;
   - LCD projector and screen.
c) TOs need to have access to a photocopier and printer to print out many competition forms that are needed for event. The complete list of the competition documents and the number of copies will be given by ITU.
d) Motorbikes with drivers and spare helmets for the officials, in an Elite sprint/ standard distance events:
   - ITU Technical Officials (3), additional to the number of motorbikes for the media and TV;
   - The number of motorbikes with drivers and spare helmets that the LOC should provide for the officials in age group competitions or any other races, will be determined by the TD following the site visits;
e) Boats- a minimum of 2 boats have to be provided to the Officials by the LOC for the swim course operations. This is additional to the number required for Medical, Rescue, Media and Broadcasters;

MAIL ITU

The final TOs' Services plan has to be approved by the TD.

3.4.4 TOs' Communication Plan

The LOC and the assigned TD should do whatever is possible to share information with TOs in advance. Please find below a proposed communication plan for the TOs.

a) A TO's Newsletter should be sent out, starting 3 months before the event. It is recommended to send at least two newsletters within this period. The newsletter should include:
   - Welcome Note;
   - Team introduction and contact details;
   - Schedule and timelines;
   - Accommodation information;
   - Catering information;
   - Travel information;
   - Local transportation information;
   - Tourist information and weather updates;
   - Link to the athlete's guide and event's website;
   - Uniform and code of conduct instructions;
   - TO's Assignments; and
   - Daily Runsheets.
b) Conference calls between the TD and the Chief Officials two months before the event must be planned.
c) Follow-up meetings on race week with the inclusion of the Chief TOs.
d) Meeting between the LOC coordinators and the Chief TOs for establishing a good working environment.
e) TO's briefings and de-briefings on the competition days.

Table 22: TOs' Communication plan (Pontevedra Multisport Festival, 2019)

	Text to ITU team for approval	Sending to TOS	Contents
1st Contact Email	week 11-17 February	1st March	Welcome, introduction and send excel to fill asking personal details (travel information, special diets, t-shirt size, cell phone number, etc.)and global information about the event.
1st Newsletter	week 18-24 March	27th March	- Event Overview - Core Technical Team - Getting There - Schedule - Acommodation - Touristic Information - Weather - Code of Conduct - Dress Code - General Information
2nd Newsletter	week 8-13 April	18th April	- Event Venue - TO Assignments - Schedule - Communication flow - Accommodation - Services to TOS (meals, activities,…) - General Information - Spanish (few basic words) - Tips and recommendations - Weather forecast
Whatsapp Group		22 April	Creation of whatsapp TO group for information sharing during the event
Event starts on 27th of April.			

3.4.5 TOs' Consideration Services in Extreme Heat Conditions

Often the TOs are asked to work under extreme weather conditions. In this case, all the provisions should be in place for protecting the TO's health and make sure they can perform their duties in a proper physical condition, the following suggestions should be considered:

a) Provide to the TOs extra amount of water along with salt tablets;
b) All meals provided should be healthy and full of vitamins and minerals;
c) Air conditioned facilities should be available to the TOs for their rest periods;
d) All exposed FOP positions should have compulsory shade;
e) Alterations on the TOs uniforms should be made to make sure that no part of their body is exposed;

f) Mist fans and ice water towels should be available;
g) The race schedule should be reviewed and make sure that there are no activities during the hottest time of the day;
h) Showers should be available nearby.
i) TOs must have access to the athletes' medical facilities if needed.

3.5 Spectator Services

Spectators' Services is an area that the LOC has to invest in which includes both the on-site experience and the event's impact on the city.

3.5.1 Communication Sources

a) Road closures will often result in extra considerations for getting spectators to the venue. It is essential that event access information is well communicated to the spectators and incorporated into the overall event promotion plan;
b) Communication sources to be used include:
   - City Road Closure Signage;
   - Event created access signage for placement on city streets (must be approved by city);
   - Local newspaper ads;
   - Local radio station ads;
   - LOC website;
   - Flyers;
   - Road banners;
   - Promo Booths;
   - Event Announcement to the public.

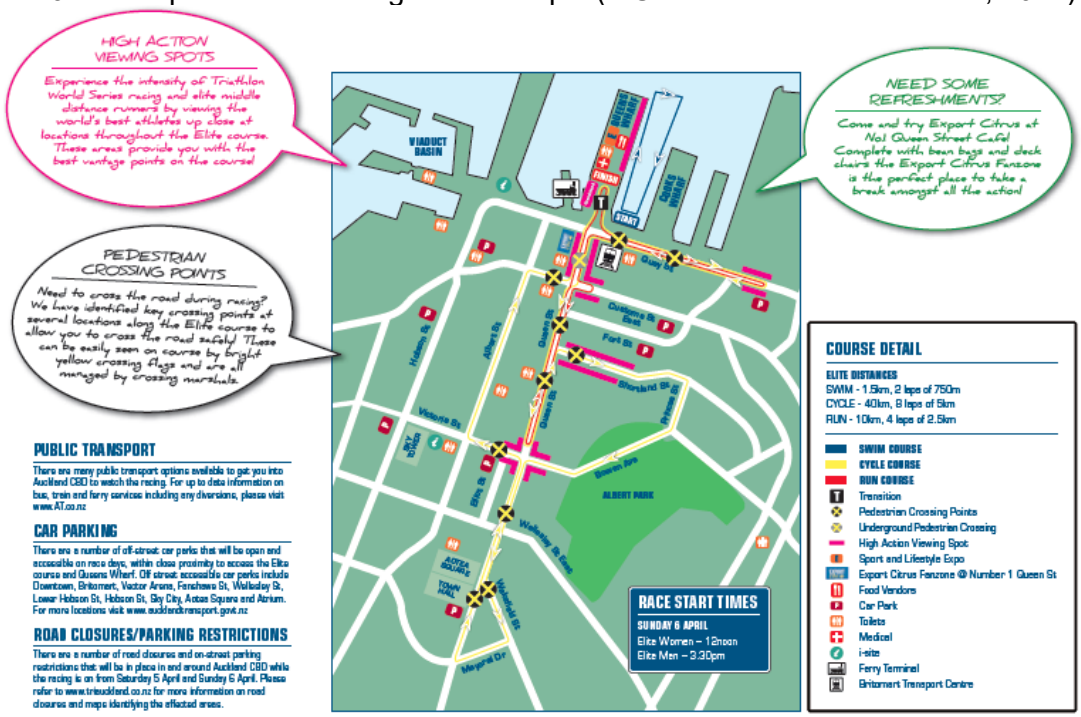
3.5.2 Spectators' Guide

A spectators' guide has to be created for the event with the information below:

a) Welcome Letters;
b) Event's Schedule;
c) Start Lists;
d) Featured Stories;
e) Venue Map;
f) Course Maps;
g) Road closures schedules;
h) Bus schedules;
i) Location of bridges over field of play;
j) Best viewing points;
k) Parking information.

Picture 18: Spectators' Venue Map Sample (ITU World Triathlon Edmonton Grand Final, 2014)

Picture 19: Best Spectators' Viewing Point Sample (ITU World Triathlon Auckland, 2014)



3.5.3 On-site Spectator Services

a) The volunteers responsible for greeting spectators on-site are essential for the spectators' experience. This team should be the first point of contact for the spectators arriving to the venue and will be responsible to welcome and direct them to the viewing areas ensuring a continuous and efficient flow.

- Volunteers should be located at all major access points on-site and in the central hub of the event site;
- Volunteers should be very visible;
- Volunteers should be well versed in on-site and course information. An information sheet on 'What is triathlon?' and 'Who to watch?' is recommended;
- The team should have a provision for special services for wheelchair users and kids;
- A lost and found point has to be provided;
- Public access toilets should be included in the venue, close to the central hub;
- Ideally, vendors should be available for the public to purchase refreshments;
- The LOC should always be in position to guarantee the safety of the spectators on-site by making provisions for:
  - Spectator medical services;
  - Evacuation routes;

See references to the Event's Support Operations section.

b) Lost & found policies and procedures

A public lost and found should be operated at a specific location within the venue with items being available for pick-up from that location. A lost and found report should be generated for each item that includes logging who the items have been returned to. Individuals searching for items must leave their name and contact information at the Volunteer Check-In. If the item is turned in, Event staff will make the necessary contact. Post-Event, individuals searching for lost items should contact the Event via email. Found items, including athlete's lost articles, will be kept for a period of 30

days. Any unclaimed items remaining 30 days post event will be donated to charity or disposed of.

MAIL ITU The final Spectator's Services guide has to be approved by the TD.

3.6 Social Functions

3.6.1 Pasta Party

a) This is a complimentary function for all athletes and team officials;
b) Invitations should be issued to VIPs/Sponsors/ITU officials;
c) Include TOs on the complimentary list;
d) Plan for additional ticket sales to guests;
e) Plan audio-visual capability for the function;
f) Venue should be easily accessible to athletes (if not, free transportation should be provided);
g) Venue should be wheelchair accessible;
h) Venue should be tastefully presented;
i) Contingency Plan should be in place in case of an outdoor venue;
j) The venue, proposed menu and program must be approved by TD;
k) Ensure a ticket for one handler or guide per paratriathlete (if applicable).

3.6.2 Opening Ceremonies – if applicable

a) The opening ceremonies should reflect the historical or cultural nature of the host city;
b) All athletes are invited to participate and given clear instructions to the event;
c) Bike parking (not secured) should be proposed;
d) Sample Opening Ceremonies ideas: may be combined with a local cultural event, the pasta party or a triathlon related event – there is opportunity for creativity here!
MAIL ITU ITU must approve the plans for the Opening Ceremonies;
e) Speeches must be short and approved by ITU;
f) A script should be developed for the most efficient running of the function. The script should include clear timelines for:
   - All speeches;
   - Cultural event;
   - Parade of Nations;
   - Oath;

MAIL ITU g) In case of an oath ceremony, a coach, a TO and an athlete have to be selected and approved by ITU;
   - Athletes' Oath: "In the name of all athletes I promise that we shall take part in the competitions, respecting and abiding by the rules which govern them, committing ourselves to a sport without doping and without drugs, in the true spirit of sportsmanship, for the glory of sport and the honour of our teams."
   - Coaches' Oath: "In the name of all the coaches and other members of the athletes' entourage, I promise that we shall commit ourselves to ensuring that the spirit of sportsmanship and fair play is fully adhered to."
   - TOs' Oath: "In the name of all the technical officials, I promise that we shall officiate the competitions with complete impartiality respecting and abiding by the rules, which govern them, in the true spirit of sportsmanship."

h) Stage for dignitaries with a podium, microphones and PAs for the speakers should be planned; and

i) A special area for VIPs should be created at the Opening Ceremony venue with the full scope of the VIP services. The number of ITU VIP guests are determined in the event's agreement and the specific LOC requirements document.

3.6.3 Gala Awards Banquet – If Applicable

a) A high quality, post-race banquet to honour all the athletes should be offered;
b) Medals and flowers presented to the top three in all categories;
c) Medal and flower presenters to be decided in cooperation with ITU;
d) The facility should be easily accessible for athletes or transportation provided;
e) The venue should be wheelchair accessible;
f) Bike parking (not secured) should be proposed;
g) Athletes, accredited team officials, sponsors, VIPs, ITU Officials (as per ITU/LOC event's agreement) and TOs are given complimentary tickets;
h) Additional tickets available for purchase by friends and family;
i) An entertainment plan should showcase the local culture. Loud music that drowns out all conversation is not acceptable at a Gala Awards Banquet;
j) Obtain all licenses for liquor, etc.;
k) Show video and highlight clips from event;
l) Fireworks or other fanfare are acceptable;
m) The stage should be tastefully decorated according to ITU Branding Guidelines;
n) Large screen with full PA support should be planned;
o) The venue, proposed menu and program must be approved by ITU;
p) Ensure a ticket for one handler or guide per paratriathlete (if applicable);
q) A special area for VIPs should be created at the Gala Awards Banquet venue with the full scope of the VIP services. The number of ITU VIP guests are determined in the event's agreement and the specific LOC requirements document.

3.6.4 VIP Receptions

The VIP receptions are held in the days prior to the races.

a) A stand-up reception is ideal;
b) Are held in an appropriately suitable venue for VIPs, such as city hall or special site in the host city;
c) Must provide food and beverages;
d) Stage for dignitaries with a podium, microphones and PAs for the speakers should be planned;
e) The VIP list should include; government officials, ITU VIPs (list obtained from ITU), NF VIPs, Event Sponsors, Key Members of LOC, Select Elite Athletes, and guests;
f) Transportation must be arranged and free of charge;
g) Special Invitations should be issued with RSVP instructions;
h) The venue's proposed menu and program must be approved by ITU.

3.7 Transportation Plan

3.7.1 Summary of Requirements

a) Coordinated transportation is needed for the following groups:
- Athletes: from/to airport- See Athletes' Services Section;
- All Athletes (to venue on race day);
- Paratriathletes specific transportation needs;
- ITU VIPs;
- ITU Officials;
- LOC;

- VVIP's (Mayor, Delegates); and
- Public (to get to the venue on race day).

b) Transportation services will include:
- Shuttle service from the airport;
- Rental vehicles (ITU Officials);
- City buses; and
- Volunteer drivers.

3.7.2 Transportation Management and Operation Plan

(Applicable according to the Event's agreement)

a) Airport Drop-Off and Pick-Up
- For athletes, please refer to Athletes' Services section;
- ITU Officials rental cars will be available at the airport for pick-up upon arrival according to the event's agreement; and
- ITU Executive Board Representatives will be picked up and dropped off from the airport by a driver and transported to the host hotel and back to the hotel.

b) Athletes
- Training Venue Transportation: All athletes are responsible for their own transportation to and from any training venues;
- Competition Venue Transportation: Athletes will ride their bikes or arrange other transportation for swim course familiarisation and bike course familiarisations;
- Transportation must be available for the athletes and their bikes from the host hotel to the venue on race day;
- A specific drop-off point should be planned close to the paratriathlon transition area on the race day for the paratriathletes. The LOC should have golf carts available in case the paratriathletes have to carry their equipment;
- Transportation to Media Events: For Elite athletes attending the media conference, transportation will be individually arranged by the LOC for each athlete; and
- Transportation to Social Functions: If the venue is not within walking distance then transportation to and from the functions must be planned.

c) VVIPs
- A detailed transportation plan should be provided in the VVIP package with specific instructions.

d) Public
- Provisions should be made to ensure spectators have easy access to the venue.

3.7.3 Vehicle Accreditation Permit Passes (VAPPs)

a) An accreditation permit pass should be placed to all the vehicles that have to entry the FOP before or during the events. The vehicles with such permission are the following:
- Cars: ITU, Medical, Bike Mechanical Support, Broom car, LOC logistics/ transportation, VIP vehicles;
- Motorbikes: ITU TOs, TV, Photo, Medical, mobile bike mechanics (if approved) and eventually security, if required.

b) Distinction between different permits is required by using different colours:
- Blue colour: Access to the FOP at any time;
- Red colour: Access to the FOP after the road closures but not during competition;
- Gold colour: Access to the VIP Parking.
- Green colour or blue/red: Access to the staff/volunteer Parking

Table 23: Vehicle Accreditation Access Rghts (ITU, 2018)

Access	**CARS**						**MOTO**					
	ITU	Med-ical	Bike Sup-port	Broom	LOC Logis-tics - Trans-porta-tion	VIP	TOs	TV	Photo	Med-ical	Mo-bile bike mec-ahnic	Se-cu-rity
Access to the FOP at any time	X	X	X	X			X	X	X	X	X	X
Access to the FOP af-ter the road closures but not during compe-tition					X							
Access to the VIP Parking						X						
Access to the staff/vol-unteer Parking	X	X	X	X	X	X	X	X	X	X	X	X

c) Accreditation permit passes should be stickers placed on the front windshield of the vehicles so that it is clearly visible. In some cases, stickers can be replaced by mag-nets. Formats can vary but shall not be smaller than A4.
d) For windshields going across the width of the top part of the windshield dimension should be approximately 130cm wide by 15cm high.
e) The final list of the accreditation permit passes should be approved by the TD.
f) The final Transportation Plan has to be approved by the TD.

Picture 20: Vehicle Accreditation Permit Passes Sample (ITU, 2019)

Picture 21: Template for windshields going across the width of the top part of the windshield (ITU, 2019)

3.8 Food Services

3.8.1 Basic Elements

a) Determine the size of the host venue: This depends on the number of volunteers, technical officials, athletes, and spectators who will be at the event;
b) Find a local catering company to provide food services for the volunteers, technical officials and athletes. It is a good idea to use one reliable caterer as it will be much easier to coordinate;
c) Find a local restaurant to cater/sponsor the VIP Area;
d) Find vendors to sell to spectators in the venue such as drink and food vendors;
e) Set up location for the awards banquet and confirm food requirements;
f) Determine food requirements for volunteer orientation: this includes refreshments and food;
g) Determine food requirements for volunteer tent;
h) Plan food requirements for volunteers helping with event set-up and take-down;

i) Plan food requirements for construction crew;
j) Consider how to get food to volunteers who are on the course (i.e. bag lunch);
k) Plan food requirements for athlete village;
l) Determine food requirements for medical tent, doping control area and media tents. (i.e. what time will food be delivered to the area?);
m) Confirm equipment and other requirements from food suppliers, and city engineering department such as power, floor, tents, etc.;
n) Complete registration form for temporary food facilities (contact local health board);
o) Complete registration form for special events (contact local health board);
p) Provide food service vendors/caterers with venue access, parking passes, parking and venue maps;
q) Give special care to the waste management in each area (recycling bins) and generally at the venue (waste compound);
r) Create food requirements spreadsheet with the following fields:
   - Date and time;
   - Location;
   - Number of people;
   - Menu plan (Special dietary requirements to be planned upon request); and
   - Supplier and event.

3.9 Media Services

3.9.1 ITU Website and Online Services

a) Live coverage of each race can be linked to the official ITU website – www.triathlon.org. The coverage is to feature live results and to be coordinated by the LOC timing and results company;
b) Post-race event photo gallery (if photos are provided by the LOC);
c) Full results posted.

3.9.2 ITU Print and Press Services

a) High quality professional photos to be sent to ITU by the LOC media team;
b) Distribution of images though international photo agencies;
c) Management of press operations on site by the TD.

3.9.3 Television and News

a) Television and news services might be provided by the LOC.

3.9.4 Media Facility Requirements

a) The LOC must provide a press centre at the venue for the general media that is an adequate size for the number of media in attendance.
b) The specifications can be found in the venue operations section.

3.9.5 Pre-Race Press Conference

(optional)

- Facilities (seating, tables, etc.);
- Backdrop (must be approved by TD);
- Adequate audio visual equipment;
- Names and pronunciation of LOC dignitaries;
- Agenda/run sheet with introductions and questions;
- Place cards (ITU approved design);
- Food and beverage for attendees;
- Water and beverage for head table;
- Translator (if applicable);

- MC;
- Local gift for attending athletes;

3.9.6 Media Zones/Areas

a) The LOC will provide designated media zones on course for press, photographers and broadcasters, separate from spectators with adequate identification and efficient movement from zone to zone (i.e. not through crowds or long distances);
b) The LOC will provide a media zone at the finish line. This zone should include a tiered platform for photographers at the finish line, a designated area for host broadcaster interviews and a mixed zone for media separate from the athletes;

3.9.7 Post-Race Press Conference

(optional)
LOCs are to consult with the ITU about the need for a post-race press conference. If deemed necessary, please refer to Pre-Race Press Conference requirements above.

3.9.8 Reporting

a) The LOC must provide a detailed reporting document to the ITU Media within 3-4 weeks after the event. This document will include:
   - Detailed Pre and Post Monitoring information (clippings, local TV statistics, etc.)
   - Final Media Contact list

4 Part 4: Field Of Play (FOP) Operations

4.1 General

a) The FOP operation section of the EOM combines the course management duties of the LOC. The following phases of a competition will be described in detail to maximise the television and spectator friendly element without compromising the safety and fairness of the competition:
- Start area;
- Swim course;
- Transition area;
- Bike course;
- Bike course aid station;
- Bike course penalty box;
- Wheel station;
- Lap counting;
- Special needs stations;
- Run course;
- Run course aid station;
- Run course penalty box;
- Finish area;
- Recovery area;
- Mixed Relay zone; and
- Winter triathlon course.

b) These phases will be described as:
- Layout;
- Personnel;
- Equipment; and
- Procedures and Operational Plans.

c) In each section, specific information on the different ITU disciplines will be provided, if needed.

4.2 Start Area

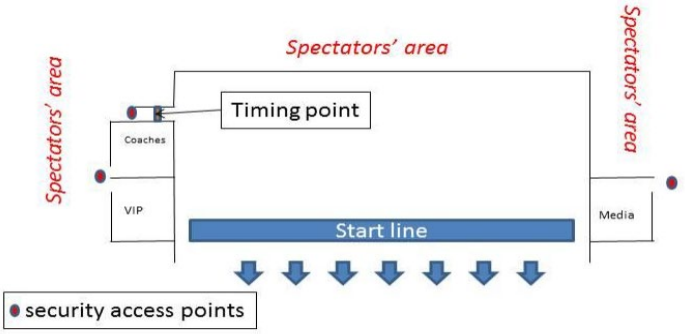
4.2.1 Start Area Layout

4.2.1.1 General

a) The start area will be defined by hard crowd control low fencing providing the athletes with a buffer zone from media and spectators.
b) Media will be provided a zone along the length of the start that will be secured from spectators by hard fencing and managed by security personnel or on a perpendicular platform attached to the one end of the platform not blocking the view of the VIPs.
c) A VIP area of at least 50 square metres will be provided adjacent to the start. It will be secured from spectators by low hard fencing and managed by security personnel. The Media and VIP areas must not overlap.
d) A coaches' area will be provided for all appropriately accredited personnel adjacent to the pre-start area. This area will be secured by low hard fencing and managed by security personnel.

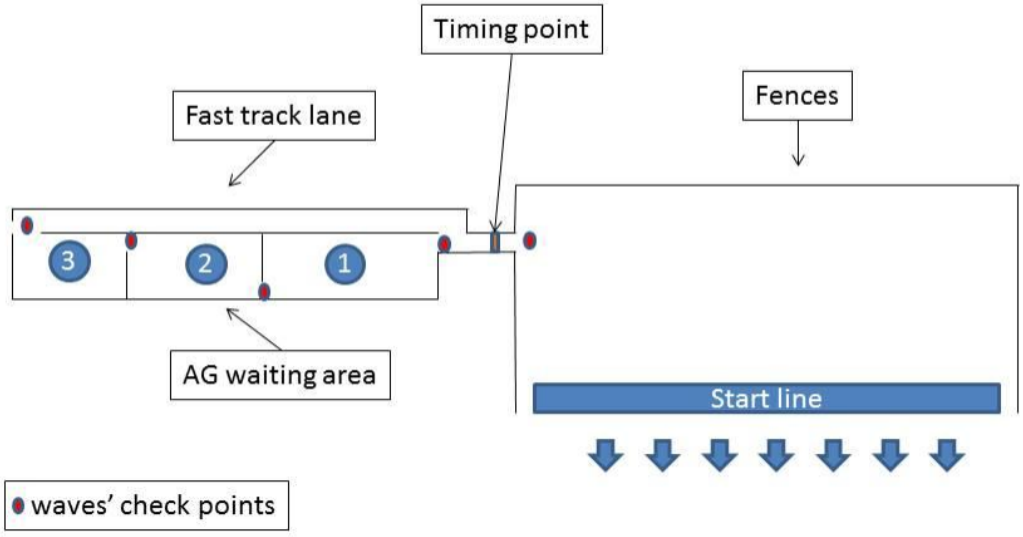
e) For an Elite event, a call room should be provided equipped with chairs, numbered boxes for leaving last minute gear and water/refreshments. Ice should be provided in extreme weather conditions.

Diagram 1: Elite Start Area Layout Sample for all Triathlon Competitions and Aquathlon (ITU, 2019)



f) Lining-up age group athletes on time is critical to avoid delays to the start times. A special area has to be prepared to facilitate the athletes from 3 waves (around 300) and a fast track lane for athletes who show up at the last minute. At the end of this area, the timing chip certification should take place. Toilets (some wheelchair accessible with catheter's disposal bins) should be provided near this area.
g) For an AG event, entertainment with an announcer and music should be planned to cheer on athletes.

Diagram 2: AG Line-up Area Sample (ITU, 2019)



h) Start area for events with rolling starts.

- For events with a rolling start system, the LOC and the TOs must follow the start procedures as described in the ITU Competition Rules. The TD should be the one to determine the line-up process of the athletes. This can be:
  - According to the expected swim start times either for mixed genders (non-drafting events) or separate genders (draft legal events);
  - Per AG categories (with mixed genders for non-drafting events or with separate genders for draft legal events).
- The layout of the area should either be:
  - a long corridor with several entrances for the different waves/ start times; or
  - several boxes/ corrals connected to a start corridor;
  - adequate signage should be in place, directing the athletes to the start area.
- The start chute should be 3m wide and long enough to accommodate the number of athletes starting the race.
- A pre-start area should be located from the end of the start chute to the start line. The pre-start area should be 3mx15m.
- A timing mat should be placed just before the swim start area, at the start line. All athletes will have to cross the timing mat before starting the swim.
- Rolling starts do not apply on triathlon/duathlon sprint and standard championships.

Diagram 3: Start Chute with Several Entrances Sample Layout (ITU, 2019)

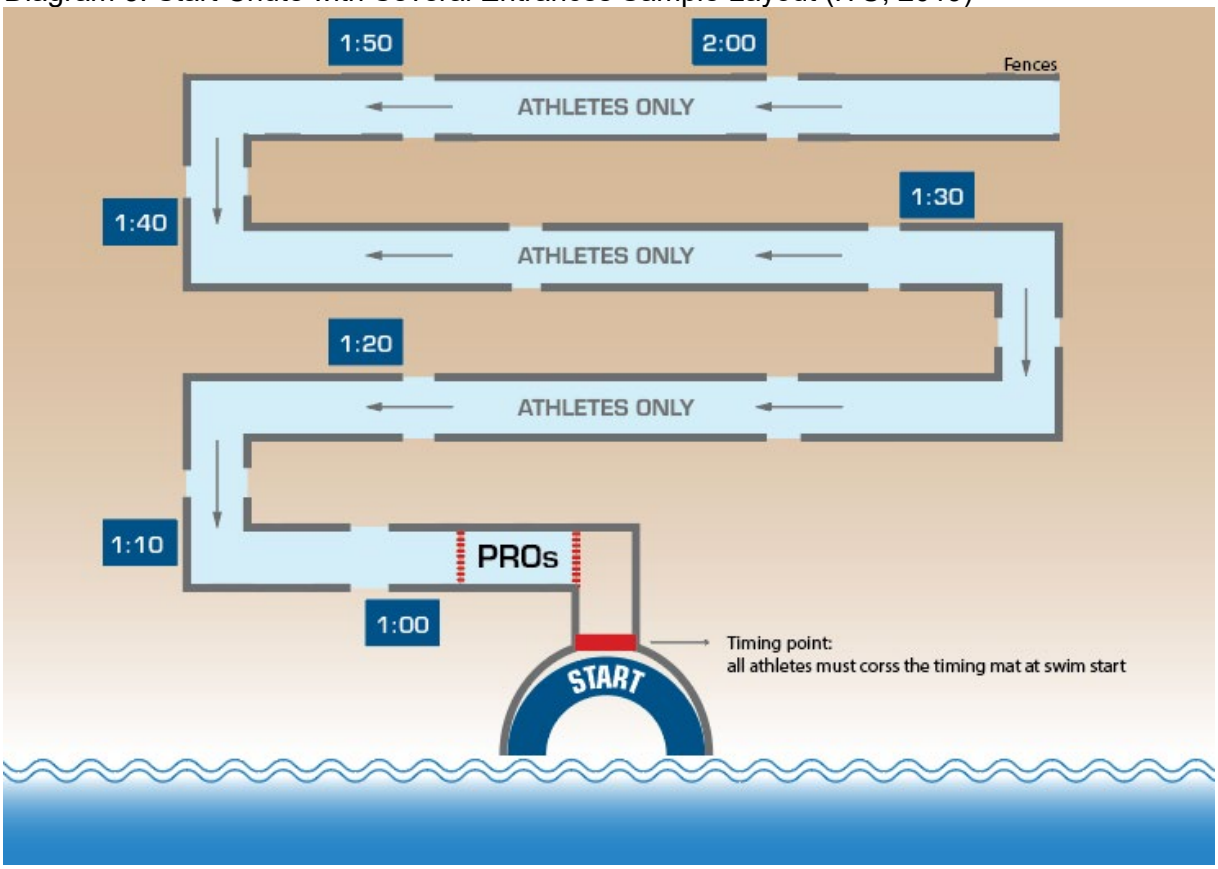
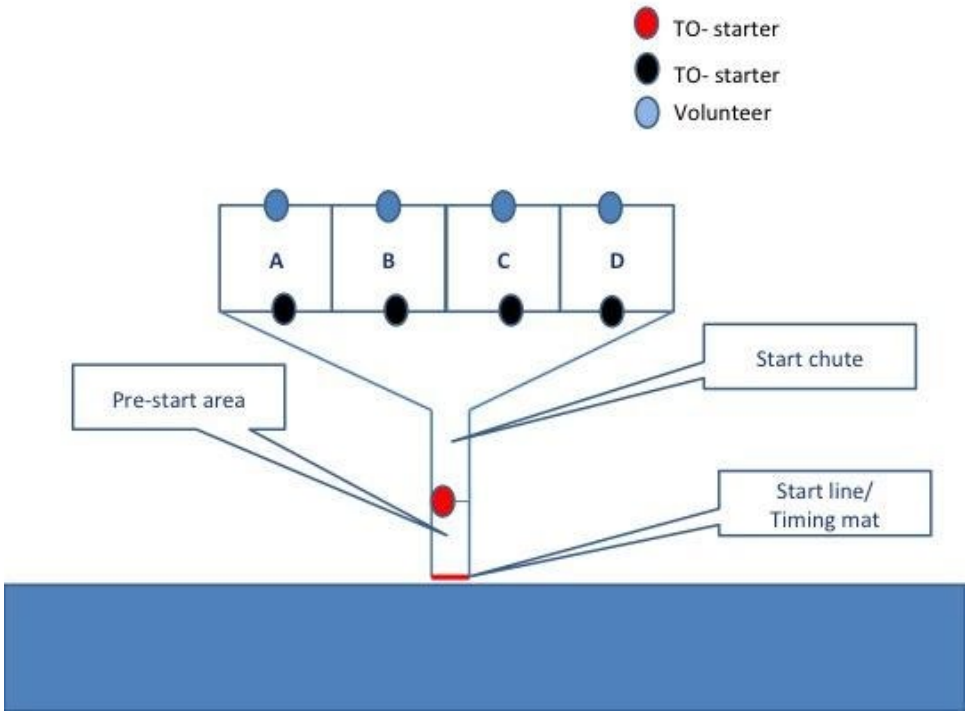


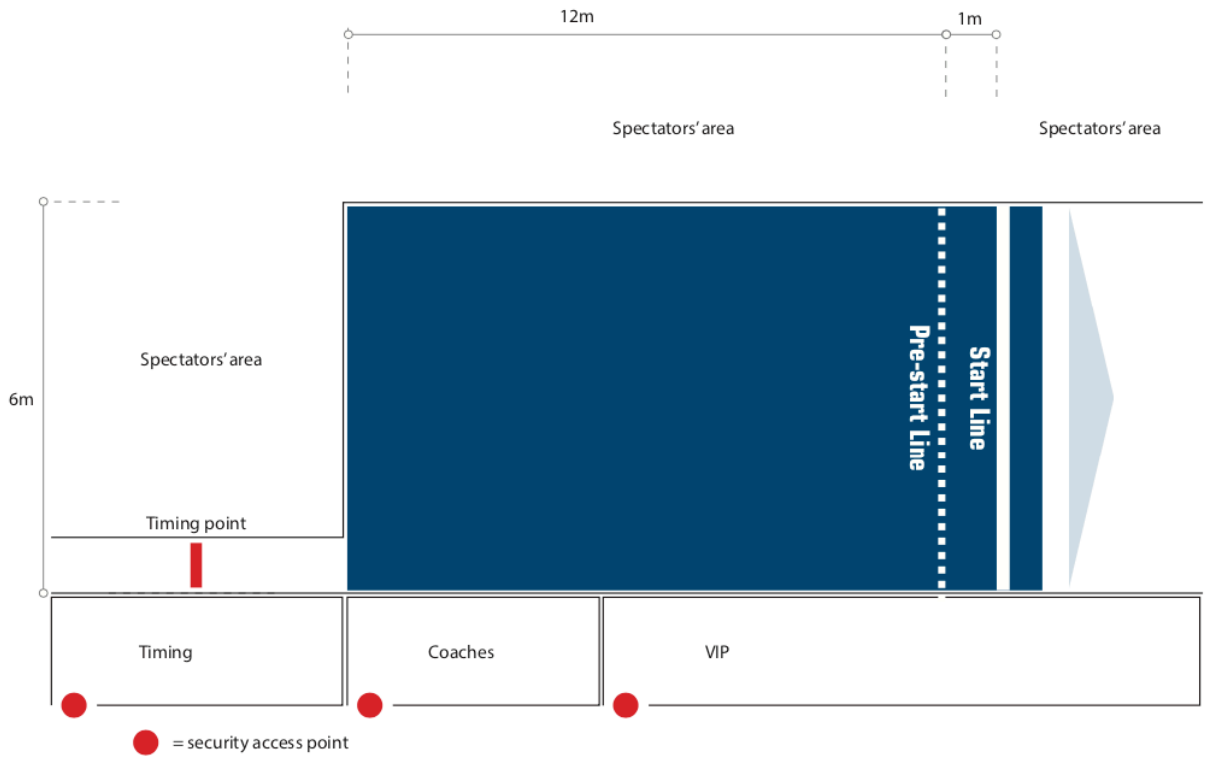
Diagram 4: Start Chute with Boxes/ Corrals Sample Layout (ITU, 2019)



4.2.1.2 Duathlon Start Area – Specific Information

For duathlon events, a pre-start line should be drawn 1m before the start line to coordinate the start procedures in an efficient way. The start area should be minimum 6m wide. The width of the line should be a minimum 5cm. In case of an AG event, the corralling solutions above will apply.
There should not be any corners within 100m of the start area.

Diagram 5: Duathlon Start Line (ITU, 2019)



4.2.1.3 Age Group Time Trial and Mixed Relay Start Area – Specific Information

AG time trial and mixed relay starts should have a run-in entrance to the swim course. This can be achieved in cases that have either beach access or a ramp structure attached to the start area. The ramp should follow the same specifications as the ones of the swim exit (see below).

The Age Group time trial start area should have a similar layout as a rolling start (diagram 3 and 4). The Age Group mixed relay start area should follow the basic start area layout (diagram 2).

4.2.1.4 Winter Triathlon Start area – Specific Information

a) A vertical structure bearing the sponsors' brands should delineate the start line.
b) The starting area must be designed to offer space for all competitors.
c) A line is drawn on the snow with water-soluble colouring material.
d) A shelter should be available near the starting line.

Picture 22: Winter Triathlon Start Area Sample (ETU Etna European Championships, 2018)

4.2.2 Start Area Personnel

a) Staff and Volunteers

- A team should be dedicated to assist the TOs with the managing athletes at the pre-start area and keeping the area clean. One of their duties is to control the access to the dedicated VIP, Media and Coaches areas attached to the start area.
- Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

b) Technical Officials

- The number of technical officials assigned to the pre-start/ start area will be determined by the TD based on the number of athletes in the competition;

4.2.3 Start Area Equipment

4.2.3.1 Swim Start Areas

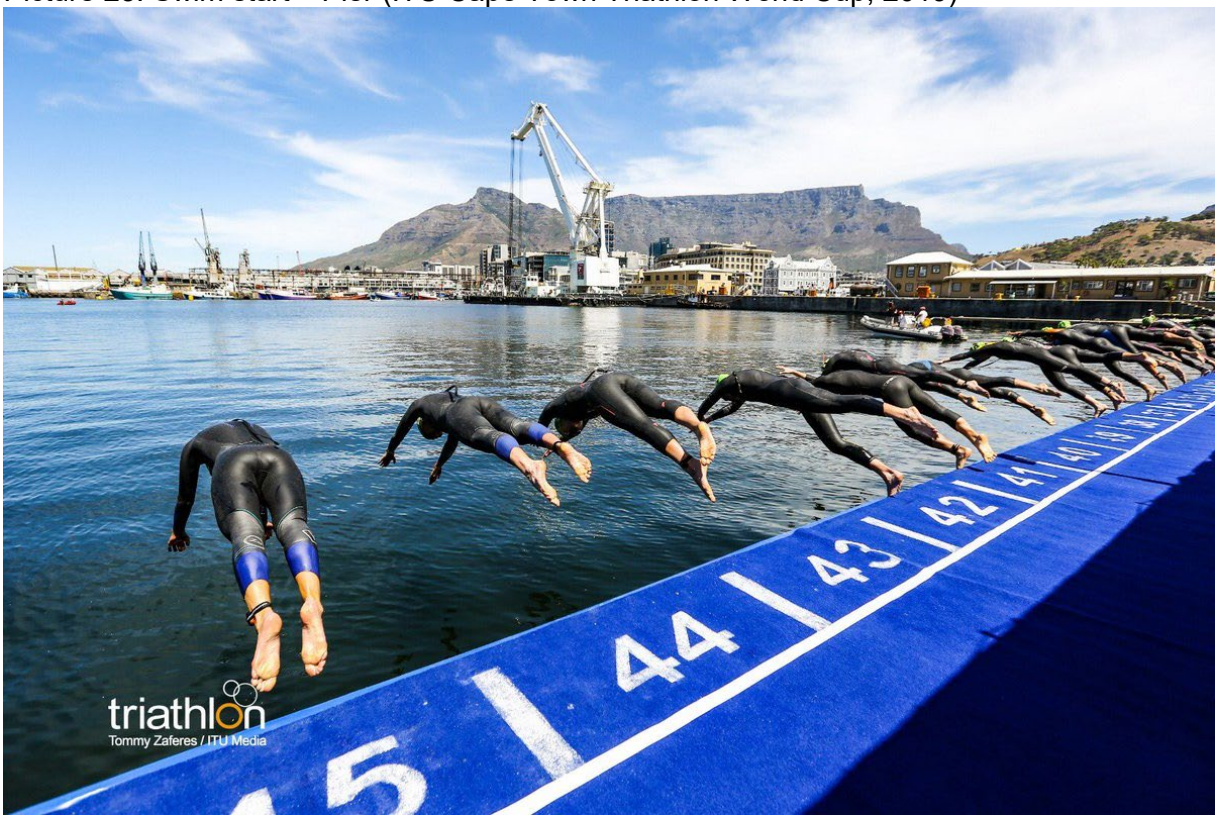
a) The kind of start used for the event has to be determined and approved by the TD. A number of factors have to be considered for selecting the proper equipment such as:
   - Start area accessibility;
   - Water depth measurements;
   - Tide tables;
   - Current;
   - Available local knowledge; and
   - Event budget.

b) If a structure is going to be provided for accommodating the start area (bridge, pontoons) an engineer's certified plan has to be submitted to the TD.

c) The 5 different types of swim start areas, in order of preference are:

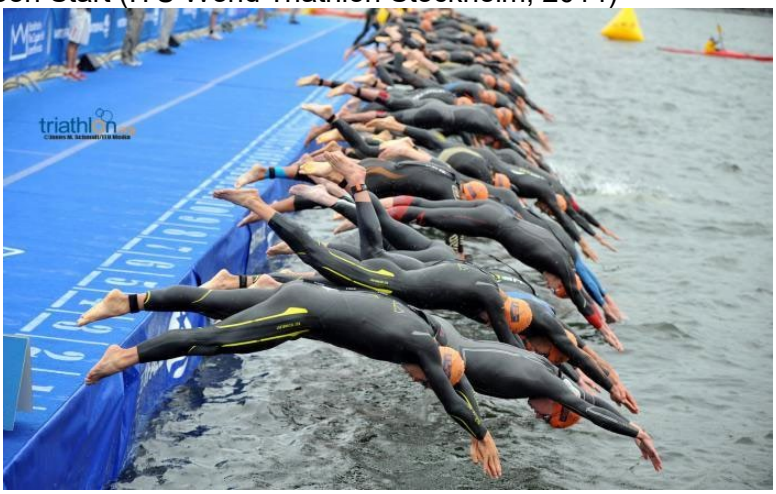
- Fixed point/ pier: Start can be given from a fixed location. The height of the point above the water surface cannot exceed 0.75m.

Picture 23: Swim start – Pier (ITU Cape Town Triathlon World Cup, 2019)



- Solid pontoon: Gives the possibility of a dive start from a solid construction. The height of the pontoon is ideally between 0.2m and 0.75m;

Picture 24: Pontoon Start (ITU World Triathlon Stockholm, 2014)



- Floating pontoon: Gives the possibility of a dive start. This pontoon has to be stable. Movement more than 0.3m in any direction during competition conditions is not acceptable. The height of the pontoon is ideally between 0.2m and 0.75m;

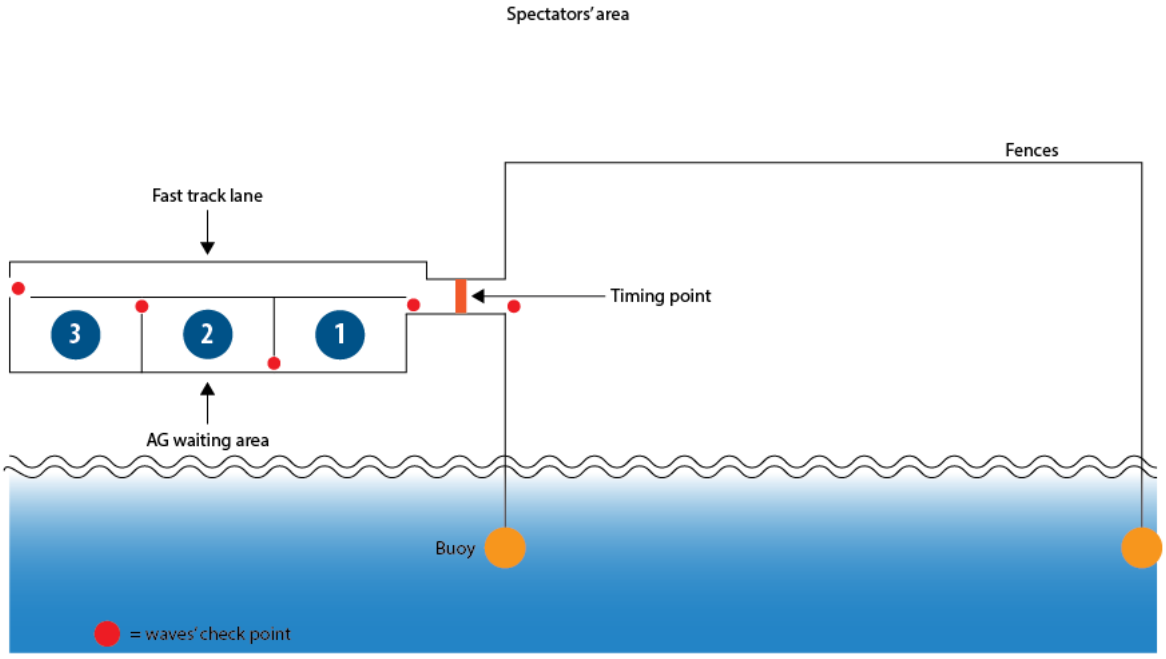
Picture 25: Floating Pontoon (ITU World Triathlon Auckland, 2014)

- Platform beach start: If there is no possibility of any type of pontoon the platform beach start is acceptable. It is a solid structure with a 0.2m elevation on the front edge, which clearly defines the start line; and

Picture 26: Beach Start (Ixtapa ITU Triathlon Pan American Cup, 2013)

- Water start: This is used for all AG and paratriathlon events. There should be a reference point indicating the start line that can be a stable object that the athletes can hold with one hand such as a pontoon with a rope on it. Alternatively, two buoys at the extremities of the start should be the last choice by the LOC.

Diagram 6: Water Start (ITU, 2018)



Picture 27: Water Start (ITU World Triathlon Auckland Grand Final, 2012)

d) Swim pontoon/platform specifications: measuring a minimum 60m x 3m. The swim start line design will provide an equal start position for all athletes.

4.2.3.2 Pontoon/ Platform Carpet

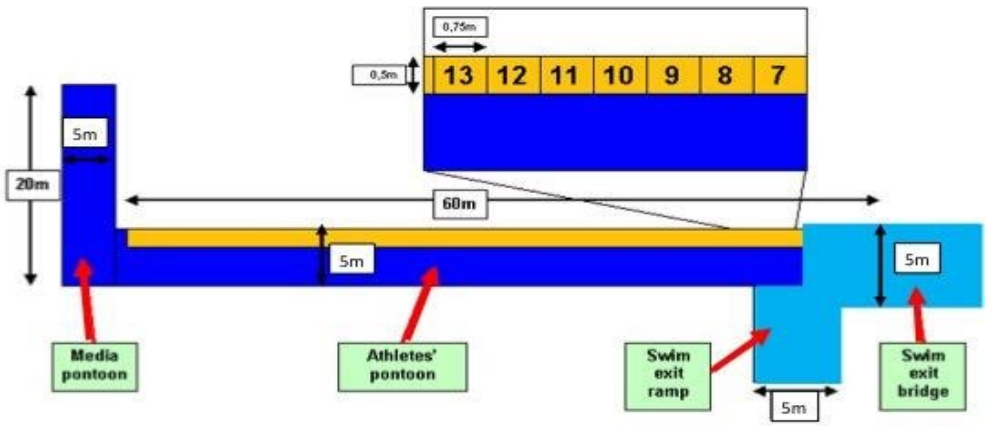
a) The swim start area (pontoon/ platform) will be completely covered in 'blue' carpet. The preferable colour of the blue carpet is pantone CMYK 2935 (80%). The carpet has to be fixed safely on the ground with either double faced tape below the carpet, nails with washers without any edge that can create an accident and/ or a heavy duty anti-slippery tape on the top of the carpet. Two pieces of carpet should always overlap by at least 0.02m in order not to have gaps between them, when the carpet shrinks due to high temperatures. The carpet specifications preferably should be:
   - Fibre – 100 PFX Stain Shield Staple Fibres
   - Fibre Weight – 820gsm
   - Total Weight – 1170gsm
   - Total Thickness – 7mm
   - Width – 2m
   - Location Grade – Sports Arena/Outdoor

TIPS

New carpet in wet conditions can be extremely slippery. Make sure to sweep the soap (white foam) from the carpet.

b) Pontoon/ platform markings
   - There will be a 'pre-start line'. This will be a solid white line of a minimum of 0.05m in width and 0.5m from the front edge of the swim platform/ pontoon;
   - Each athlete will be allowed 0.75m; and
   - Each athlete position will be numbered from right to left when facing the first turn buoy. The numbers must be a minimum of 0.2m in size and white in colour facing the athletes as per the design below.

Diagram 7: Pontoon Sample (ITU, 2019)

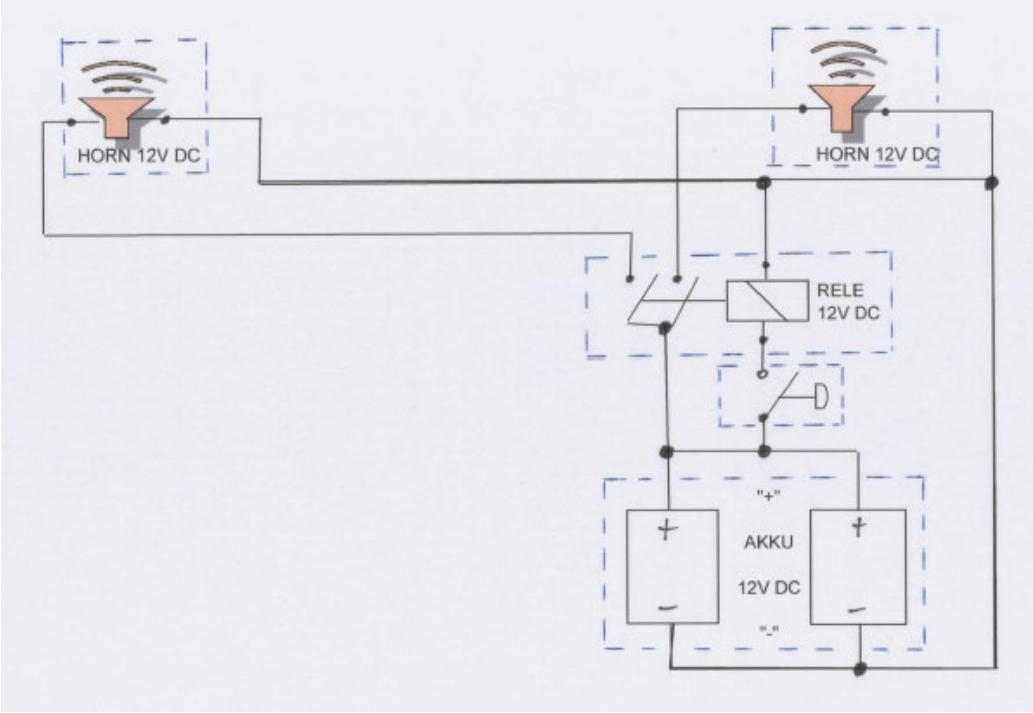


4.2.3.3 Swim Start System

The LOC should prepare and provide an electronic start system. This system should be

comprised of at least 2 horns (22W), 2 metal poles to support the horns, 2 car batteries for power, 1 controller with a microphone and a switch with about 120m wire (for 2 sets of circuits) or 60m wire (for 1 set of circuits). The following diagram is based on a 2 horns set up.

Diagram 8: 2 Horn Set Up Swim Start System (ITU, 2019)



4.2.4 Start Area Procedures and Operational Plans

4.2.4.1 General

a) The procedures around the selection of the start positions and the race start are defined in the ITU Competition Rules.

4.2.4.2 Middle/Long distance: Eyeglass Table

a) The LOC should provide a table manned by volunteers next to the AG corralling area where the athletes can leave their eyeglasses before the race.
b) The glasses should be tagged with the athlete race number and moved by volunteer runners to a similar table at the swim exit from where the athletes can collect their glasses.
c) The whole operation must be managed with caution.

4.3 Swim Course

4.3.1 Swim Course Layout

4.3.1.1 General

a) Maximum number of laps (for distances check the ITU Competition Rules):
- Elite/U23 standard distance – 2 laps (preferably 1000m + 500m);
- Age group standard distance – 1 lap;
- Elite/U23/Junior/ Youth/Age group / Paratriathlon sprint distance – 1 lap;

- Middle distance/ Long distance –1 lap;
- Mixed relay and super sprint –1 lap;
- Aquathlon – 1 lap; and
- Cross triathlon – 1 lap.

b) The swim will be in a counter clockwise direction, if the TD does not suggest differently;
c) The turns should be curved and with the angle of the turn never less than 90°;
d) For standard and long distance events, the first turn buoy will be a minimum of 350 m from the start;
e) If necessary, a last buoy will be placed before the swim exit to ensure the athletes are facing the middle of the swim exit;
f) The swim course minimum depth should be 1.5m;
g) The use of a warm up area must not interfere with the competition in progress;
h) Medical facilities will be placed adjacent to the swim course;
i) An aid station will be placed adjacent to the swim exit for the age group athletes in any distance. For Elite and Paratriathletes, an aid station will be placed near the swim exit in middle distance events and above.

Diagram 9: Ideal Elite Standard Distance Swim Course Design (ITU, 2019)

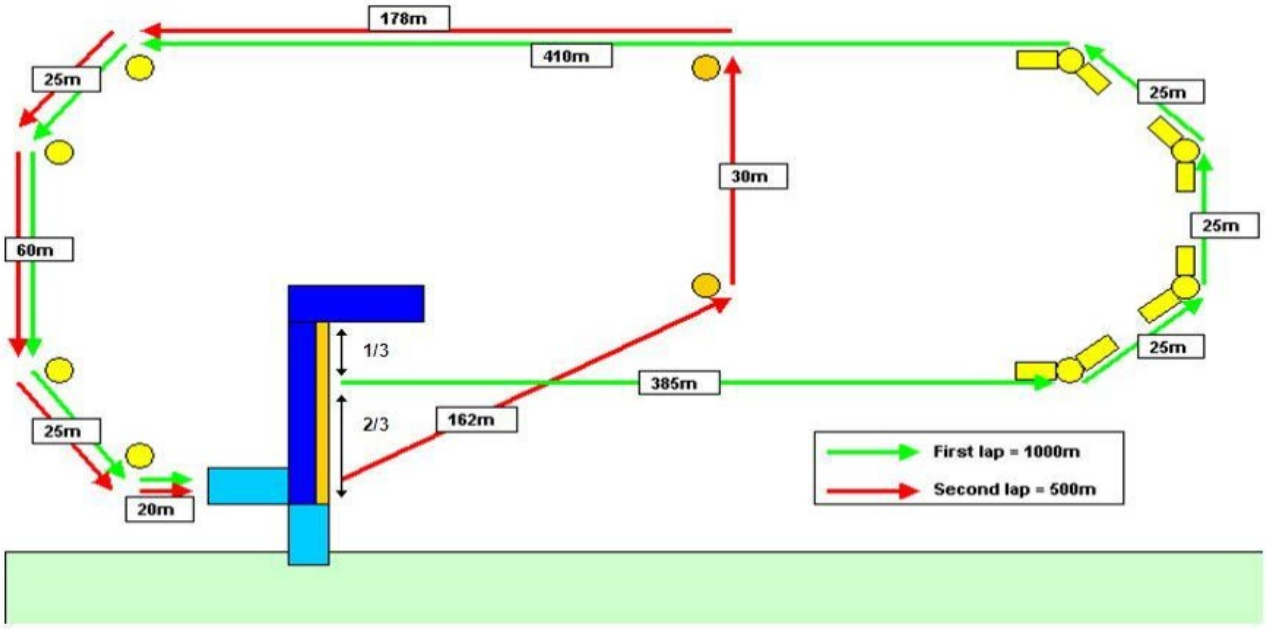
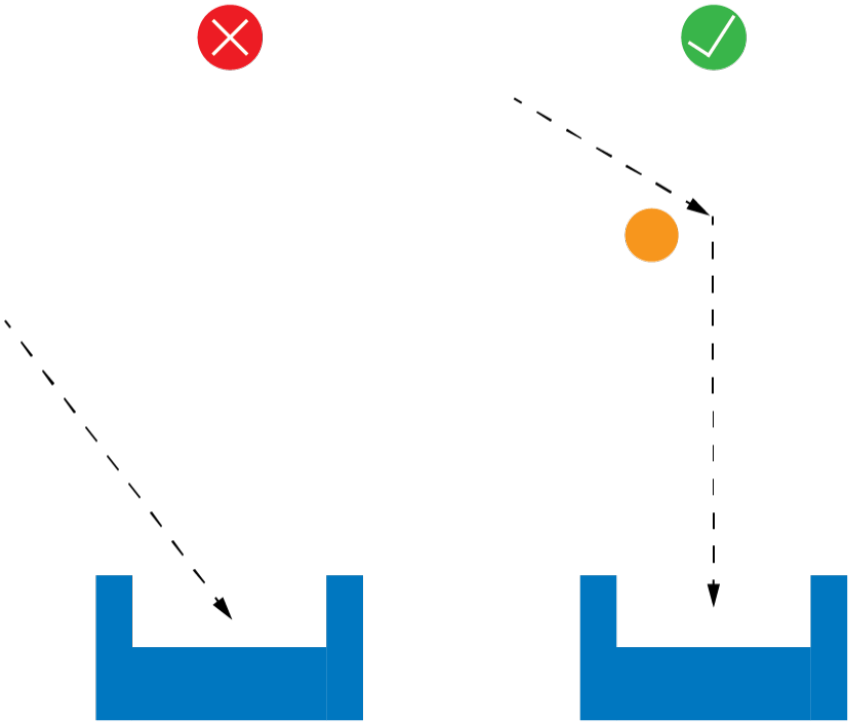


Diagram 10: Angle to Swim Exit (ITU, 2018)



4.3.1.2 Paratriathlon Swim Course – Specific Information

a) Special consideration should be given to the access to the pontoon and to the swim course. It should be wheelchair accessible;
b) Athletes need to be given adequate swim warm-up time with clear instructions on the time frame for this;
c) Paratriathletes will start by using a deep water start;
d) In case of a water start, a start area should be created in the water by locating 2 buoys on the left and right sides;
e) In the case of a multiple loop swim, the entire swim portion of the event will be in the water. At no point, other than the final exit from the swim will Paratriathletes be required to exit the water (and then re-enter the water);
f) The Paratriathlon swim course should have the least effect from currents, tides and waves;
g) The medical safety plan of the event should be adequate and each of the Paratriathletes should be closely monitored.

4.3.1.3 AG Mixed Relay Swim Course – Specific Information

Due to the number of teams starting this competition and the swim course distance, it is totally unsafe for the 1st athlete per team to swim an out and back swim course. For this reason, only point to point swim courses are allowed for the 1st leg. The 2nd, 3rd and 4th athlete will have a different swim course layout with the swim start and swim exit close to each other.

4.3.2 Swim Course Personnel

4.3.2.1 Staff and Volunteers

a) All the positions of the swim course personnel are described in the marine operation plan - games level competitions (Appendix Section).
b) It is recommended that:
   - The safety boat driver has experience on boat handling, water safety, communication and rescuing other water users;
   - To have certified lifeguards assigned to open water safety. We should have a ratio of 1 lifeguard per 50 athletes with minimum of 12 lifeguards per shift;
   - The divers to have a rescue diver qualification.

4.3.2.2 Technical Officials

a) The number of technical officials assigned to the swim course will be determined by the TD based on the number of athletes in the competition and the swim course layout.

4.3.2.3 Paratriathlon Swim Exit Assistants

a) General
   - The LOC shall provide a minimum number of swim exit assistants. This is indicated in the ITU Competition Rules;
   - The final number of swim exit assistants will be determined by the TD;
   - The TD will be responsible for their training;
   - Only these people will be allowed in the swim exit area; and
   - The level of support that the swim exit assistants will provide to the athletes, is determined by the colour of the athletes' swim cap as defined in the ITU Competition Rules.

b) Requirements (USAT, 2013)
   - This position requires physical strength (especially for wheelchair athletes who need to be physically lifted out of the water);
   - This job is not recommended for youth aged children or those with any lifting restrictions;
   - This volunteer position is sure to get the handler wet so it is recommended they wear suitable clothing;
   - If the water is cold, wetsuit bottoms or a full wetsuit is recommended;
   - Rubber-soled footwear is also appropriate so that the handler does not slip on algae or any other slippery material that may be in the shallow water or at the actual swim exit; and
   - Type of footwear may also vary if the swim exit is sand.

c) Duties (USAT, 2013)
   - Swim exit assistants work in teams of two (pairs) to assist the athletes;
   - Ideally, swim exit assistants should be of approximately the same height for team lifting;
   - One individual needs to be responsible for controlling the teams to ensure proper coordination;
   - Once the team has finished helping one athlete, they move back to the swim exit to assist the next athlete coming out of the water; and
   - The use of a sling is required for lifting athletes from the swim exit (Red colour swim cap). It is the responsibility of the LOC and/or the host NF to provide this equipment.

Picture 28: Paratriathlon Sling (ITU, 2019)

d) Safety Precautions
   - The swim exit assistants will have to assist athletes with an average weight. For this reason, they should always remember that:
     - Their safety comes first. If something happens to them, it will affect the athlete;
     - They should never rush to take the athlete out of the water;
     - They should always familiarise themselves with the swim exit;
     - Make certain that their balance is good;
     - They should always bend to lift an athlete;
     - They should keep their back straight by tucking in their chin;
     - They should lift with the strong leg muscles, not the weaker back muscles.
     - Carry the athlete close to their body;
     - Watch where they are going;
     - To lower the athlete, bend the knees; and
     - NEVER attempt team lifting without proper coordination.

e) Each of the swim exit assistants should be provided with a red t-shirt or vest that should always be worn.

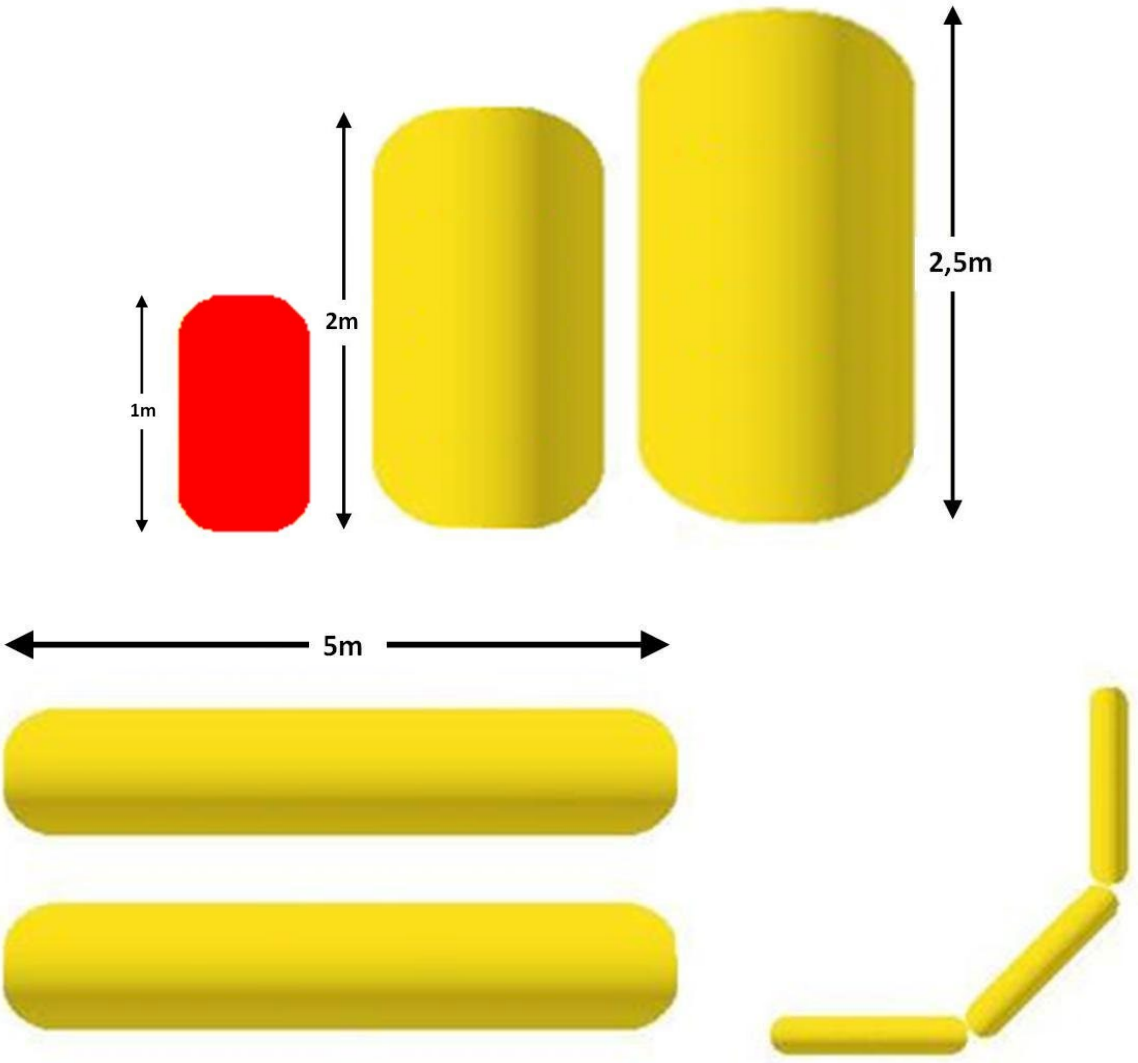
Picture 29: Swim Exit Assistant's Vest (Triathlon Australia, 2014)

4.3.3 Swim Course Equipment

a) Buoys

- The buoys should have the following characteristics:
  - Banana buoys are 5m long x 1m diameter.
  - Turn buoys are 2.5m long x 1m diameter
  - Sight buoys are 1.2m long x 0.7m diameter
  - The turn buoys are 1m in diameter and not less than 2.5m in height. An 'Olympic-style' banana buoy is preferred;
- They must be made of fabric air-tight pvc 850-1100 denier, sewing high frequency welding system, multiple connections stainless steel for the connections of the buoys, valve irrevocably and should be removable. Sight Buoys: The number and placement of sight buoys will vary, but will never be placed less than 100m apart.

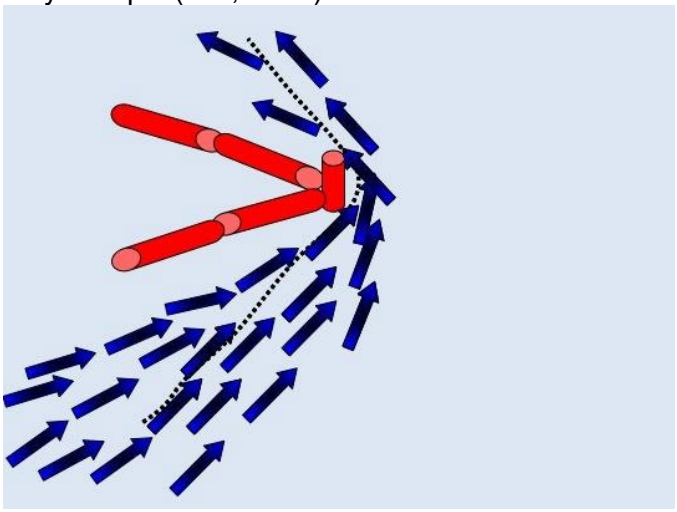
Picture 30: Buoys Specifications (ITU, 2019)



b) Swim Course Turning Buoy Set-up:

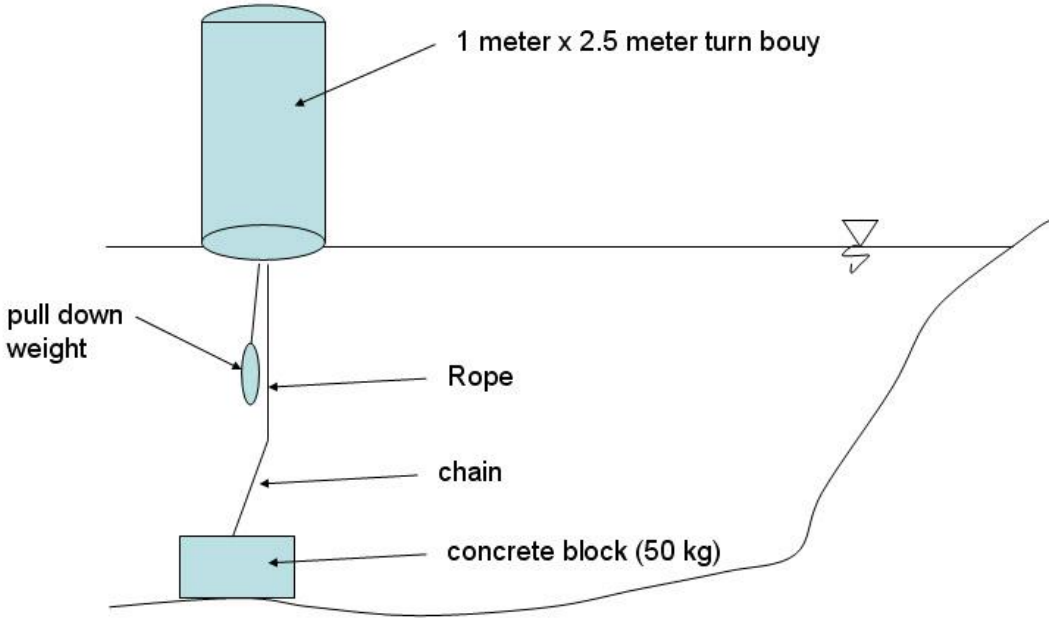
- The vertical line that starts from the 1st turn buoy should split the pontoon/ platform in 1/3 and 2/3 having the 1/3 as it is demonstrated on the Diagram 4;
- The banana buoys have to be set up in a way that they don't interfere with the athletes' flow;

Picture 31: Banana Buoy Sample (ITU, 2019)



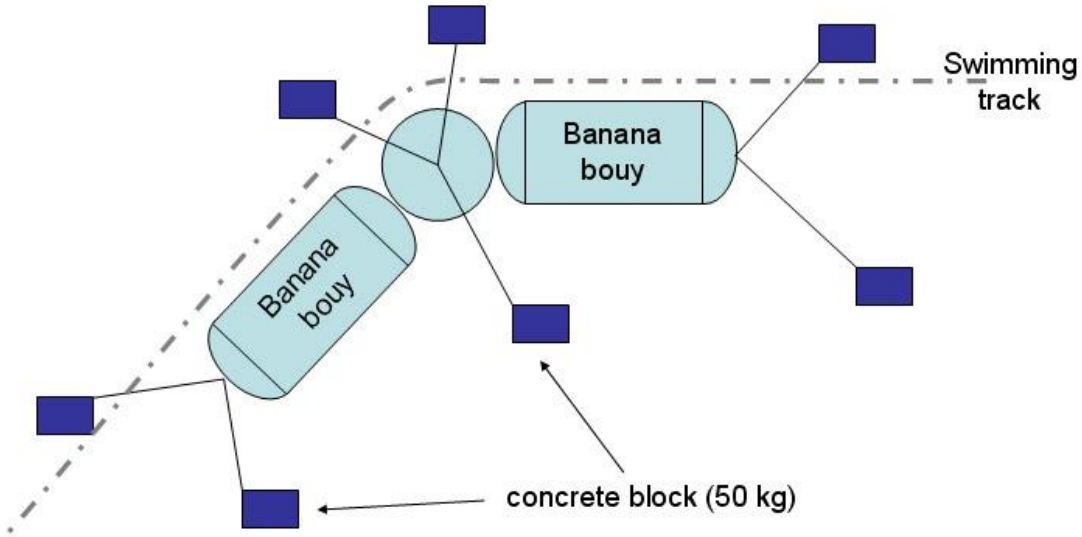
- The pull-down weight should be over 20 kg. In case of strong winds, big waves and strong current more weight will be needed. The weight must be at least 1.5m deep;
- The total length of both rope (connecting the chain and the pull-down weight) and chain should be long enough to keep the buoy in its position in case of wind, waves and tide changes;
- Wire is forbidden. Use of carabiners is recommended;

Diagram 11: Swim Buoy Set-up (ITU, 2019)



- If the turn buoy consists of separate buoys all of them should be attached. The total length of the turn buoy cannot be more than 15m long;
- One turning point (three buoys – 2 'banana' and 1 standing buoy) must be stabilised by 7 independent fixings; and
- The fixing ropes should not disturb the athletes.

Diagram 12: Turn Buoy Set-up (ITU, 2019)



c) Floating Resting Points
It's good practice to provide a floating resting point every 250m of an AG swim course. This equipment should be fixed next to the athletes' channel and the

athletes' will have the possibility to approach them and rest in case that they need them.

Picture 32: Floating Resting Point Sample (Ironman event, 2015)

d) Swim exit ramp

- The width will be at least 5m;
- The swim exit can be either a ramp or steps;
- In case of a ramp, the angle cannot be more than 25% (14 degrees) and the bottom of the ramp has to be a minimum of 0.6m under the surface of the water;

TIPS

Don't confuse percentages with degrees.

- In case of steps, one step has to be a minimum 0.4m wide and two steps can't be more than 0.25m apart from each other in height. The first step has to be a minimum of 0.6m under the surface of the water;
- The exit will be covered with blue carpet. This part of the carpet should be continuously swept to create a rough surface. Alternatively, the swim exit can be painted with a blue paint mixed with sand for improved traction; For carpet specifications check section 4.2.3.2)

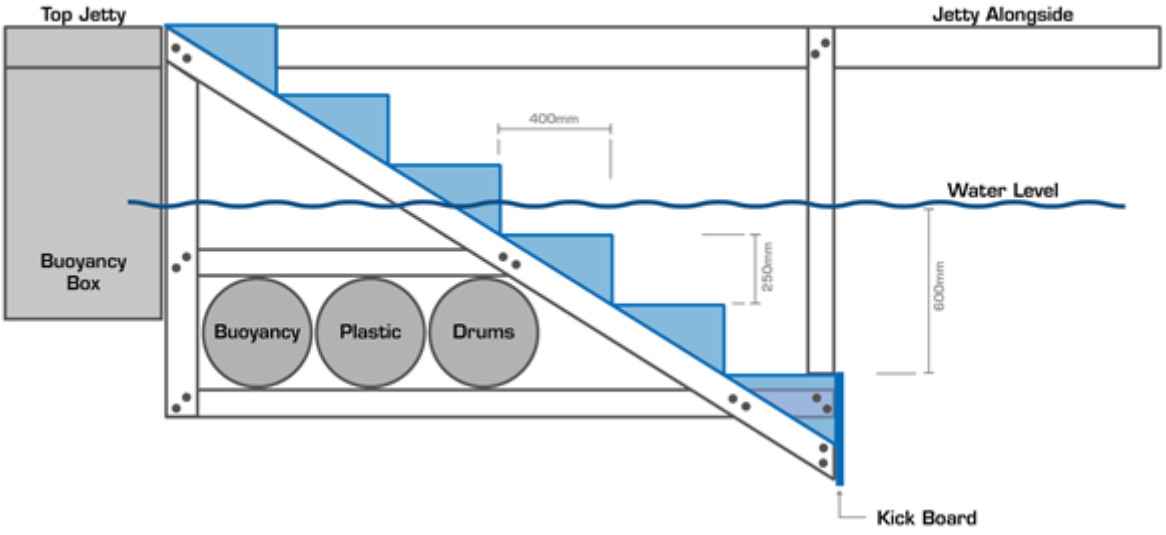
TIPS

Make sure that the swim exit ramp has thin sticks on top of the carpet for better traction.

- The swim exit should be clearly marked by 2.5m highly branded buoys/pillars/columns/ feather flags;
- When necessary, fresh water showers should be provided for all athletes to run through on the way to the transition area;
- There must be an official with a video camera to monitor the swim exit;
- The exit must be paratriathlon accessible; and
- Different exit solutions are chosen depending on the swim depth and the type of pontoon:
  - Solid pontoon with very deep water: in this case, steps are preferable and have to be attached to the pontoon;

Picture 33: Swim Exit Attached to a Solid Pontoon in a Deep-water Area (ITU World Triathlon Stockholm, 2014)

Diagram 13: Swim Exit Attached to a Solid Pontoon in a Deep-water Area (ITU World Triathlon Cape Town, 2015)



- floating pontoon with shallow water: an exit ramp has to be used if its lowest edge can touch the bottom of the sea by keeping the optimal grade;

Picture 34: Swim Exit Attached to a Pontoon in a Shallow Water Area (ITU World Triathlon London, 2014)

- Floating pontoon (barrel) in any water depth: a swim exit ramp has to be used by anchoring the ramp to the floating pontoon (diagram 11)

Picture 35: Swim Exit Attached to a Floating Pontoon in Deep Water Area (Tongyeong ITU World Cup, 2014)

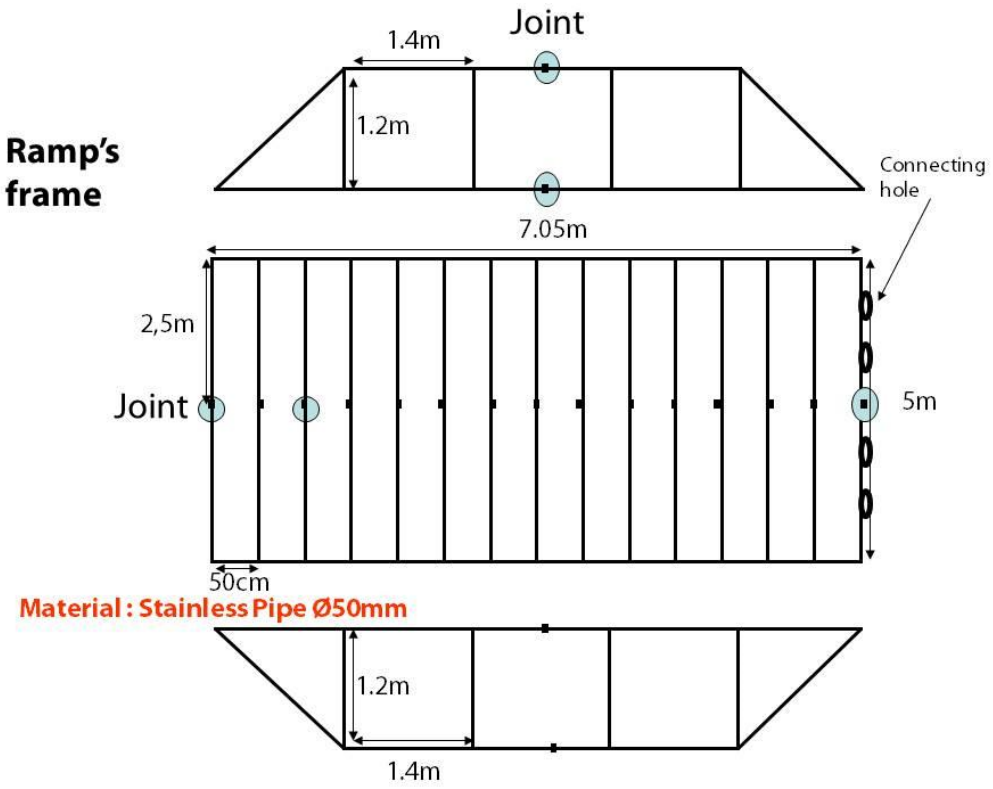
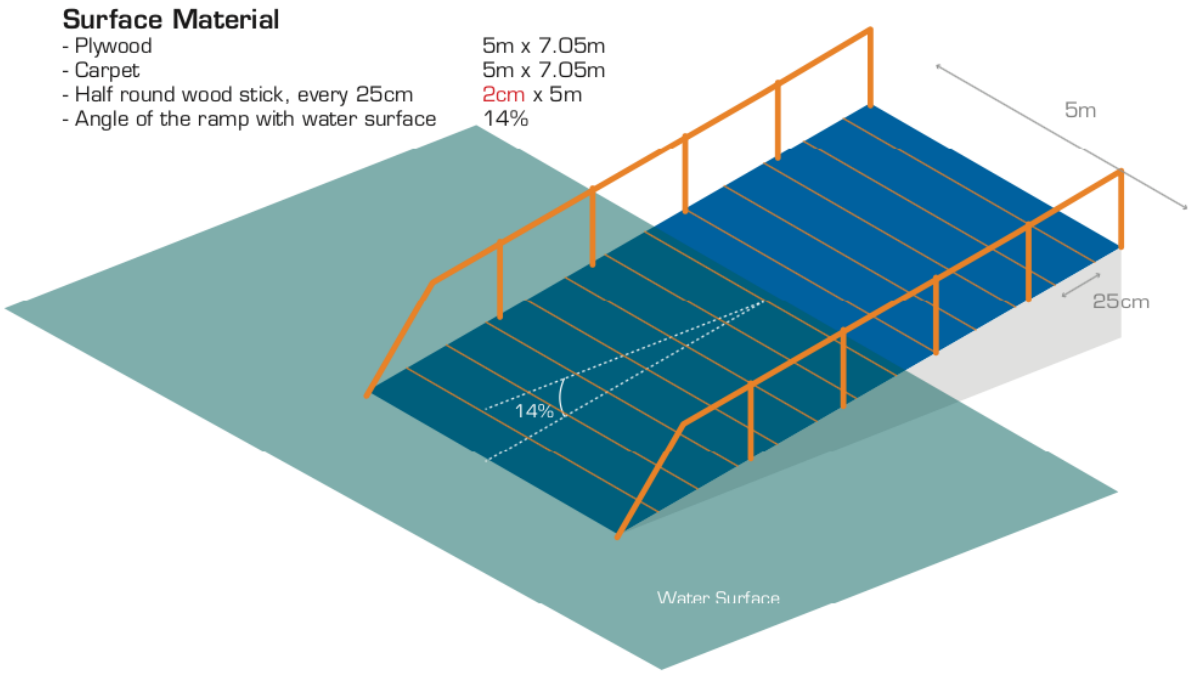
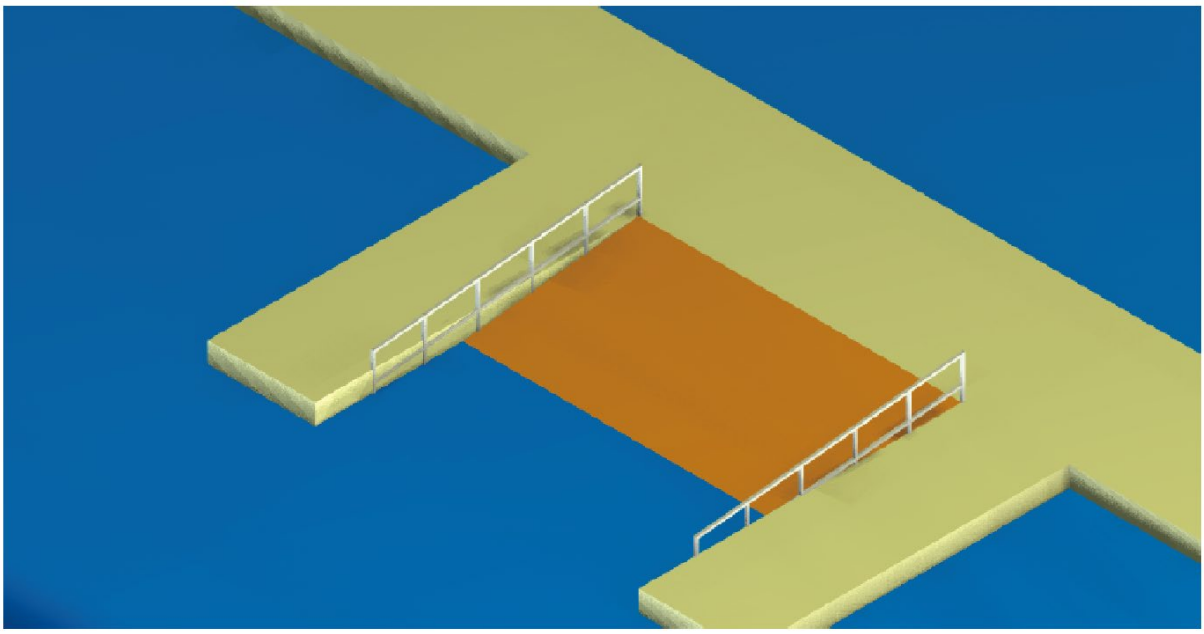


Diagram 15: Exit Ramp for Floating Pontoon – Surface Material (ITU, 2019)



Picture 36: Exit Ramp for Floating Pontoon (ITU World Triathlon Yokohama, 2015)



4.3.4 Swim Course Procedures and Operational Plans

(described also in the marine operational plan - games level competitions Appendix Section)

a) Water quality

- Water quality tests have to be submitted to ITU for approval at the times listed in the ITU Competition Rules.
  - Additional tests may be requested from the TD based on the results of the previous tests.
- The water quality tolerance limits are listed in the ITU Competition Rules.

b) Sanitary visual inspections

- Sanitary visual inspections are an essential element of assessing the microbial safety of water for athletes and a necessary addition to water microbiological analysis.
- A well conducted sanitary inspection can identify sources of microbiological hazards, while the microbiological data confirms the presence of hazards, and the two together allow for an estimation of the risk of illness to athletes and staff.
- A sanitary inspection is a search for, and evaluation of, existing and potential microbiological hazards that could affect the safe use of a venue for competition. It provides the information required to design and implement an effective water quality sampling programme and provides valuable information to assist in the interpretation of water quality data.
- The inspections should always look for both new sources of microbiological hazards and a review of the existing hazards. The inspections should not only look at areas within the competition area, but also outside. The water flows, tides and weather should also form part of the selection of inspection sites.

- The sanitary inspections should form part of the pre-event site inspection and the daily water quality procedures. The daily water quality procedures should follow the below:
  - On-site morning inspection, 3 hours before the first event on each competition day.
  - The preparation of the water quality assessment, which should include the inspections, the weather patterns (including rain, wind direction and tides if necessary) and the microbiological water quality data.
  - The results of the assessment should be communicated, as per the Water Quality Information and Decision Making Flowchart which can be found on the ITU Competition Rules.
- If during the pre-event site visit inspection there is a moderate or high suspicion of faecal influence, the LOC will need to perform additional tests from the ones mentioned above, following approval from ITU.
- The sanitary inspection should include all potential sources of contamination in a catchment. Attention should be paid to the presence of:
  - sewage disposal facilities, including long sea outfalls,
  - freshwater drainage outflows into the water,
  - industrial outfalls,
  - seabird colonies,
  - sanitary sewers or agricultural runoff and any rivers,
  - algal bloom,
  - visibility of the water of more than one metre (this may only be less when this is caused by natural circumstances),
  - tributaries, streams or ditches that receive any form of storm water runoff or sewage. Adjacent industries should be identified, and their impact assessed. Visual faecal pollution (including sanitary plastics), sewage odour and suspicious water colour should also be considered as an immediate indication of unacceptable water quality.
- The impact of local geography and meteorological conditions on water quality should also be evaluated and built into the assessment.
- In certain circumstances, some non-toxic fluorescent tracer dyes, bacteriophages or faecal sterol biomarkers may also be helpful to identify sources and flows of contamination.

c) Water Quality Improvements

In case of a poor water quality there are existing ways to improve it. The use of these methods should be verified within specific countries with the public authorities.

These methods can be either natural:

- Pumping fresh water in the area;
- Use of a net/ screen/ curtain to restrict the polluted area;
- Use surface aerators for oxygenating this area.

Or chemicals:

- Hypobromous acid sodium salt;
- Sodium hypochloride;
- Chlorine dioxide;
- BCDMH and others.

d) Speed of current:

- According to the ITU Competition Rules, the TD has the authority to modify the distance of the swim segment or even cancel the swim depending on the speed of the current;
- The goal is for the athletes to swim for the same amount of time with or without a current by extending or reducing the distance as required;
- The swim segment has to be cancelled if:
  - Athletes would be swimming against a current stronger than 0.15 m/s.
  - Athletes would be swimming with a current stronger than 1 m/s.
- The current speed can be measured in a defined distance of 10m at the swim segment, by throwing a piece of wood into the water and measuring the time it needs to cover 10m.
- If cruise ships and/or ferries are near the course with engines on, their propeller will create a drift which can be a big hazard by drawing the athletes to them.

TIPS

A tool is available for the technical officials to convert the units of the measured speed.

e) Course measurement

- A laser transit or GPS will be used to measure the swim course, which must be the exact needed distance. This certified measurement must be provided to the TD for approval.

f) Monitoring athletes' behaviour

- It's extremely important to closely monitor the athletes' behaviour during the swim segment. The LOC should provide the TD and the assigned technical officials with the required equipment (boats, camera operators, cameras) for performing their duties properly and guarantee the athletes' safety.

g) Marine Operational Plan

The LOC should prepare and submit to the TD for approval, a marine operation plan that should include the following:

- Detailed description of the swim courses along with the GPS coordinates of the buoys set up;
- Complete list of the marine/ rescue staff along with the equipment (boats, kayaks, boards etc.);
- Communication process between marine staff, local authorities and ITU;
- Schedule of activities along with the check-in and check-out timelines of the involved personnel;
- Normal operating procedures with a clear description of the movement of each marine personnel (before, during and after the event);
- Emergency action plan
  - The LOC should be able to verify the number of athletes who entered and exited the swim course at every moment of the event, using timing mats. The plan should include the basic steps:
    - confirm that there is a pre-start timing mat that captures the athletes' timing chip;
    - record the athletes who are not wearing a wetsuit.

TIPS

This information is critical in case of a missing athlete. A wetsuit will not allow the body of an athlete to sink so the search can be focused only on the water's surface.

    - manually count the number of athletes who come out of the water;

- If an athlete is missing an emergency action plan should be activated. The main steps in this process should be:
  - check all chip-timing records;
  - check lifeguards' manual records;
  - check with the transition officials so see if all the bikes have exited transition;
  - confirm that the athlete was racing with or without a wetsuit; and
  - perform a visual check of the swim course by the lifeguards
- If the athlete was wearing a wetsuit, and a search on the water's surface has not found the athlete, the issue will be referred to the venue control centre for further actions; and
- If the athlete wasn't wearing a wetsuit and there is no sign of the athlete on the swim course, a water-based search has to be conducted.

- Evacuation procedures with a detailed plan on both individual and mass evacuation.

h) Shark safety protocol

An event that is taking place in an area with recorded shark attacks to swimmers and surfers, should have a shark safety protocol in place. This plan should meet the local standards and procedures and be approved by the local authorities. The plan should include a protocol for:

- pre-competition clearance for starting the race;
- shark spotting during the race and communication/ alarm procedure;
- swimmers and marine staff evacuation and stop all other swimmers from entering the water;
- swimmer's protection in case of a shark's active and direct approach within 30m of the swimmer.

i) Algae and jellyfish protocol

If an event is taking place in an area subject to algae and jellyfish, the LOC should have operational plans to remove and prevent the occurrence of such hazards by placing specific algae or jellyfish nets in the appropriate locations.

Picture 37: Jellyfish and Algae Nets (EcoCoast, 2019)

j) Debris and oil spill protocol

If the LOC assesses potential risks of debris and/or oil spills on the swim course, then a protocol should be designed to prevent and mitigate the risk of such hazards. Deployment of debris barriers and oil booms must be considered.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Picture 38: Debris Barriers (EcoCoast, 2019)

4.4 Transition Area

4.4.1 Transition Area Layout

4.4.1.1 General

a) Flow, entry and exit angles: there should be no sharp angles and the flow should be in one direction for both transitions;

b) The transition area should be separated from the spectators and the other areas adjacent to it with low hard fences. In the case of an AG race, the area should be secured with a high fence;

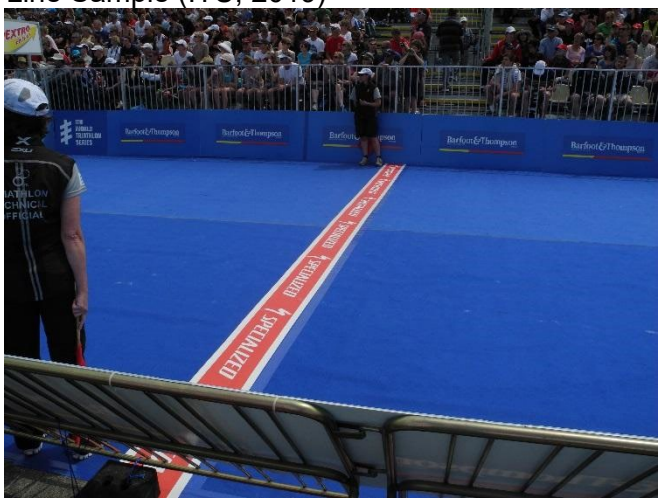
c) The mount line should cover the full width of the transition exit and be clearly marked with a green sticker or carpet. The width of the mount line should be 0.4m with white stripes on both sides. The mount line has to be non-slip (total length and width);

Picture 39: Mount Line Sample (ITU, 2019)

d) The dismount line should cover the full width of the transition exit and be clearly marked with a red sticker or carpet. The width of the dismount line should be 0.4m

with white stripes on both sides. The dismount line has to be non-slip (total length and width);

Picture 40: Dismount Line Sample (ITU, 2019)



e) The specification of the stickers is:
   - 3m Outdoor Floor Graphics 3662-10 white
     Special protective laminate: 3M Outdoor Floor laminate 3647 transparent
   - Size: 125 to 40cm, we stick it next to each other; Print: Event logo or special event partner.

f) In case of two transition areas, the set-up of the Elite athletes' positions must be the same in both;
g) A two transition areas layout for AG is not recommended;
h) A coaches' area should be provided adjacent to the transition area. It will be secured from spectators by low fencing and managed by security personnel. Coaches are not allowed in the transition area;
i) A VIP area adjacent to the transition area should be provided for the VIPs and other dignitaries;
j) A media specific lane should be created parallel to the transition area for accredited media access; and
k) The final transition layout should be approved by the TD.

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4.4.1.2 Triathlon – Duathlon Transition Area – Specific Information

(Elite/U23/Junior/Youth)

a) The transition area should be on a hard surface preferably asphalt or concrete and fully covered with carpet;
b) The athletes may or may not cycle through the transition depending on the type of event (draft legal/ draft illegal) and with the TD approval.;
c) Two rows of bike racks facing each other are preferred;
d) Minimum width is 6m between the 2 rows of bike racks from the front edge of each bike rack;
e) In case of a traditional transition layout the athlete's space should be 1.5m wide and 1m from the back edge of the bike rack to the fence line; In case of an "Olympic" style transition layout the individual bike pods should have 2.5m between them, measured from their centre and 2.5m from the centre of the bike rack to the fence line;

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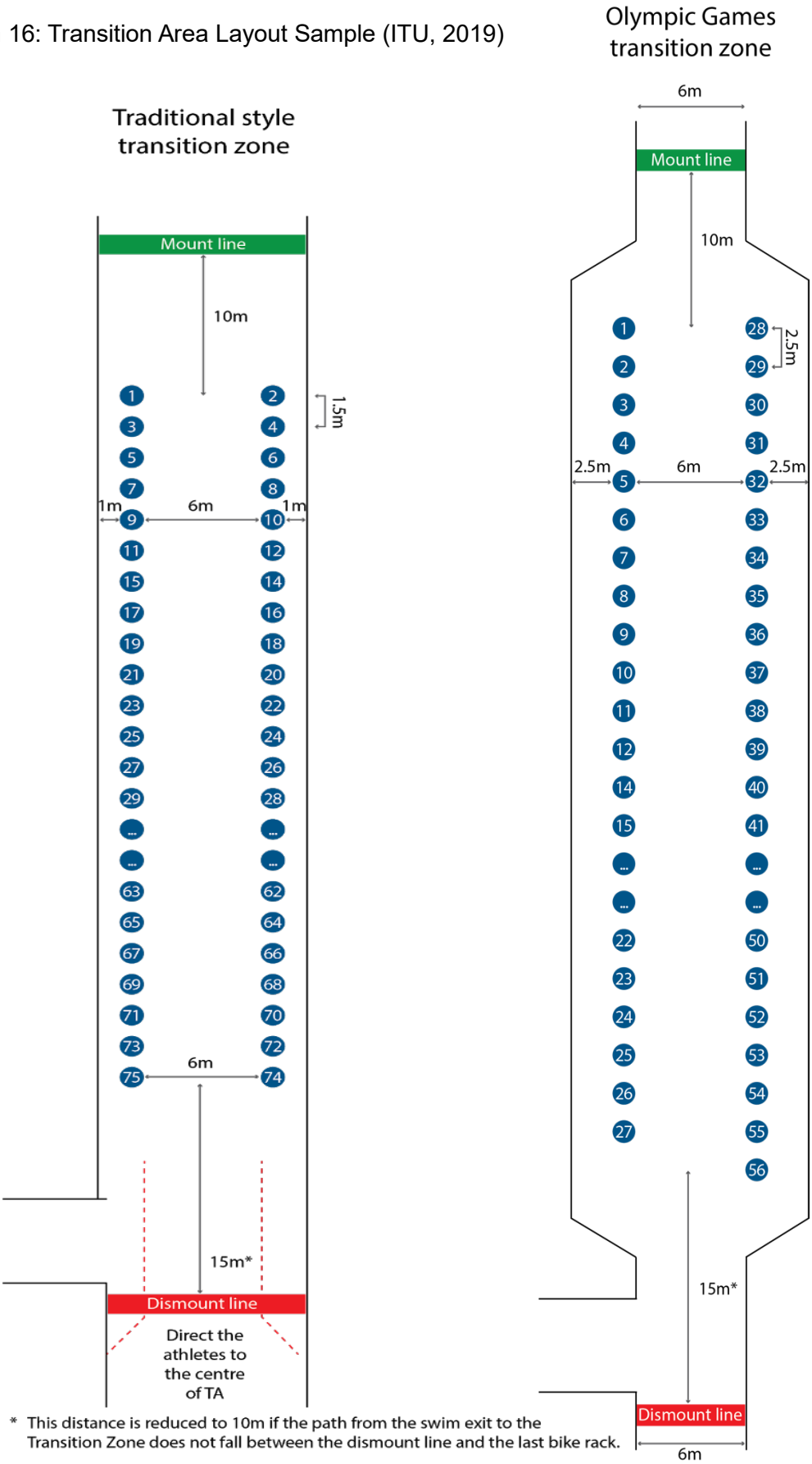
Diagram 16: Transition Area Layout Sample (ITU, 2019)

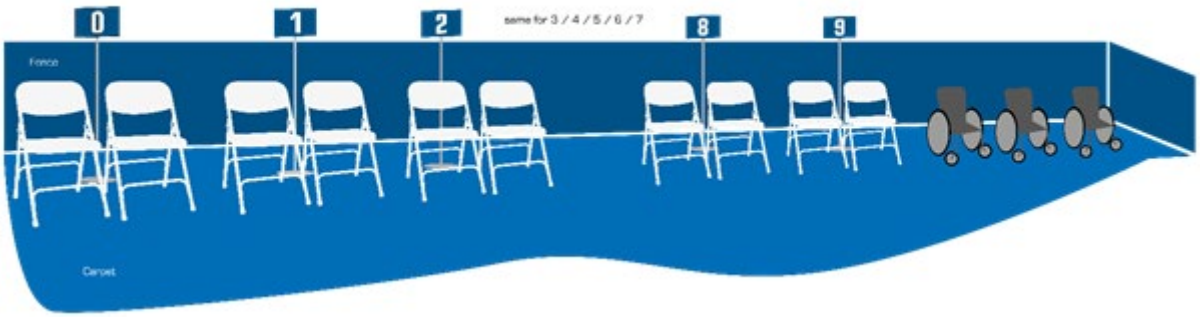


f) The last rack and the first rack of the transition should be 15m away from a sharp corner, in case the athletes pass through the transition on every bike lap;
g) The mount line should be placed no closer than 5m and no further than 10m from the first bike rack;
h) The dismount line should be placed no closer than 5m and no further than 10m from the last bike rack. The distance goes up to 15m when the path from the swim exit to the transition area merge the transition in between the last bike rack and the dismount line; and
i) The width of the entrance and exit of the transition is minimum 6m and should be the exact same distance between the two rows of bike racks.

4.4.1.3 Paratriathlon Transition Area – Specific Information

a) Consideration needs to be given as to how athletes will move from the swim exit to the bike transition area. Adaptations may be necessary to eliminate stairs or steep ramps not accessible by wheelchairs;
b) The swim exit area should be managed only by the trained swim exit assistants;
c) A pre-transition area shall be planned according to the ITU Competition Rules;

Diagram 17: Pre- Transition Area layout (ITU, 2019)



d) The transition area should be on a hard and flat surface, preferably asphalt or concrete and fully covered with carpet;
e) Corners should be kept at minimum, u-turns must be avoided;
f) Two transition zones in different locations (T1/ T2) should be avoided;
g) Two rows of bike racks facing each other are preferred; The transition area should be divided in blocks, one for each category.
h) In case of a single line of racks or a mirror transition, the athletes are placed by category and race number;
i) PTWC athletes are located close to the dismount line and PTVI are placed close to the mount line. The other categories are placed in between in a sequential order: PTWC – PTS2 – PTS3 – PTS4 – PTS5 - PTVI;
j) The minimum width is 6m between the 2 rows of bike racks from the front edge of each bike rack;
k) The athletes should get the following space (from the centre of bike rack to the centre of bike rack) according to their category:

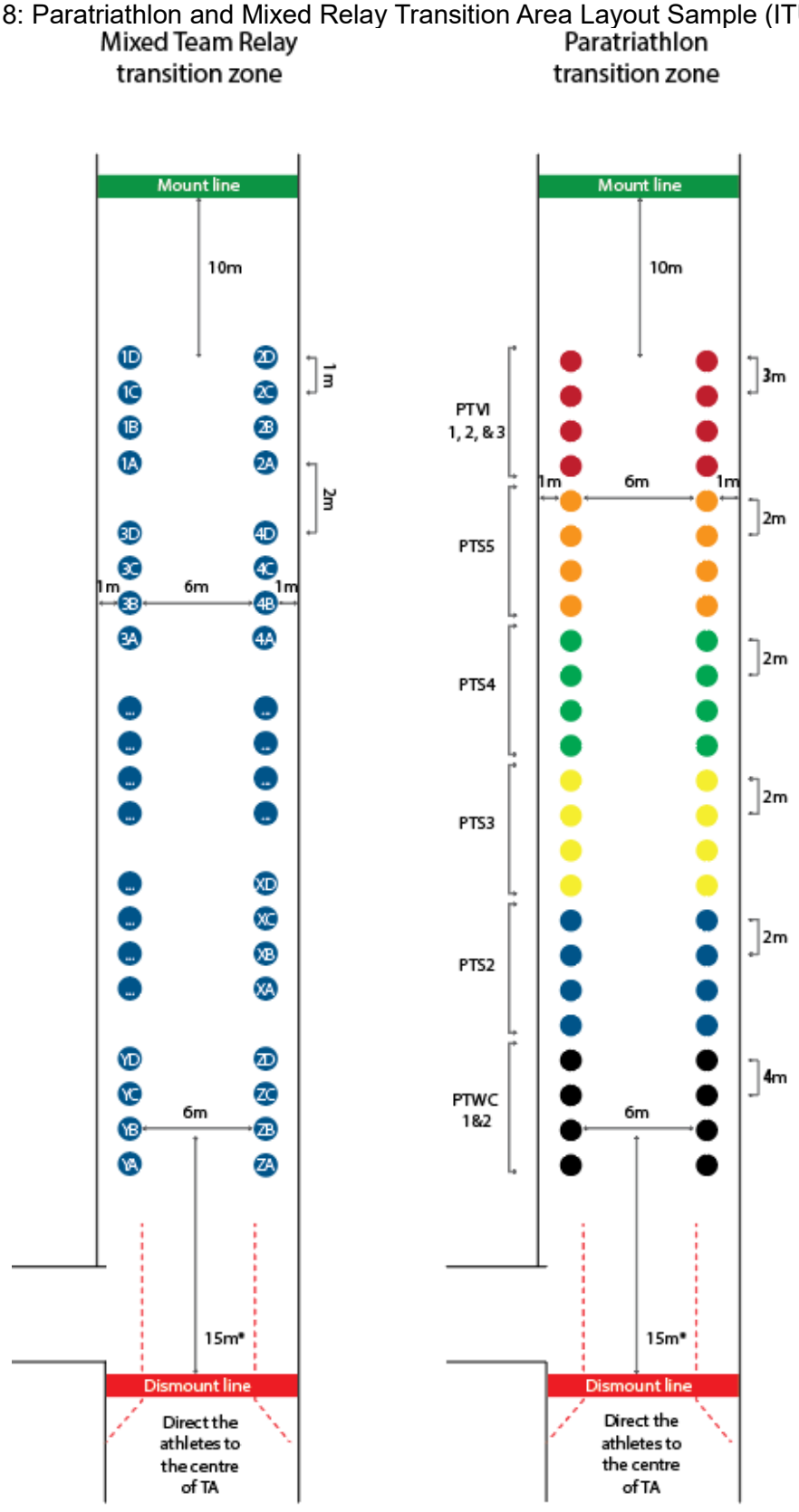
- 4m for the PTWC athletes;
- 3m for the PTVI athletes;
- 2m for the rest of the athletes.

l) Each PTWC Paratriathlete will have an individual space of 4 x 2 metres. The athlete, the handlers and all the equipment must be inside this space, during manoeuvres in the transition area. This space should be marked with white tape;
m) The fence line should be 1m away from the back edge of the bike rack;
n) The athletes cannot pass through the transition on any bike lap;
o) The transition area should be chosen to keep the distance from swim exit to transition no longer than necessary;
p) The mount line should be placed no closer than 5m and no further than 10m from the first bike rack;
q) The dismount line should be placed no closer than 5m and no further than 10m from the last bike rack;
r) Transition area must be wheelchair accessible;
s) A folding chair should be available for every athlete and guide, except for the wheelchair athletes;
t) 2 boxes have to be provided for the PTVI athletes and one for the rest of the athletes; and please refer to the ITU Competition Rules for the specific Paratriathlon rules;
u) Medical personnel should be located close to the transition area.

4.4.1.4 Mixed Relay Transition Area – Specific Information

a) Athletes from the same team should be placed together in the transition area next to one another on the same side of the transition, unless the TD orders differently;
b) Each team member should have 1m space (from the centre of a bike rack to the centre of another bike rack) and each team should be 2m away from another team; and
c) The last team member should place his bicycle closest to the mount line.

Diagram 18: Paratriathlon and Mixed Relay Transition Area Layout Sample (ITU, 2018)



* This distance is reduced to 10m if the path from the swim exit to the Transition Zone does not fall between the dismount line and the last bike rack.

4.4.1.5 2x2 Mixed Relay Transition Area – Specific Information

a) In a 2x2 Mixed Relay event, the members of the team should not be located next to each other. Depending on the width of the transition area, we either provide:
   - Two bike rack rows with each side dedicated to one member of each team; or
   - One bike rack row by the top part for the A members (women) of the teams and the lower part for the B members (men).

b) All athletes should have continuous access to the transition area even while the team mate is racing.

c) The access to the transition should not cross any timing mat.

d) Regarding spacing, location of mount/dismount line and bike rack name plate design, the same specifications as of the Mixed Team Relay event apply.

4.4.1.6 2x2 Mixed Relay Exchange Zone – Specific Information

a) Attached to the 2x2 Mixed Relay Exchange Zone, a preparation area where the athletes can wait before the exchange must be provided. The minimum size tent of 10m x 3m must be provided along with an open space where the athletes will be able to proceed with their warm up.

b) One coach per NF is allowed in this area.

c) This tent may be used as an athletes' lounge prior to the race. The athletes should have access to their bags. If not, the LOC must set up operations to relocate the athlete's bag from the athletes' lounge.

d) In this space we should have an open area along with benches, refreshment/recovery drinks.

e) Special attention should be given to the weather conditions. Heating/blankets/warm drinks or cooling/shades/ice/cold refreshments should be provided in cold/warm weather conditions respectively.

4.4.1.7 Olympic and Paralympic Transition Area – Specific Information

a) "Olympic" individual event
   - The distance between the individual bike racks should be 2.5m, measured from their centre point. The distance from the back edge of the bike rack to the fence line is 2.5m;
   - The mount line should be placed 10m from the first bike rack, unless approved by the TD;
   - The dismount line should be placed 10m from the last bike rack, unless approved by the TD;
   - The width of the entrance and exit of the transition is a minimum of 6m which should be the exact same distance between the two rows of bike racks;
   - It is very important to take into consideration the width of any "furniture/equipment" positioned in the Transition area (e.g. corrals) to ensure the space available is adequate for such layout.

b) "Olympic" Mixed Relay Event
   - The Olympic Mixed Relay has a similar transition as an ITU Mixed Relay event;
   - The distance between athletes of the same team is 1.5m, and distance between teams is 2.5m;
   - An Olympic style transition may be considered if the venue allows it;
   - A 3m. run lane must be added to the venue.

c) "Paralympic" Event
   - The distance between bike racks is the same as for ITU Paratriathlon events;

- The Olympic style transition flow is not followed in the Paralympic event;
- A bike lane of 4 metres and a run lane of 3 metres must be added;

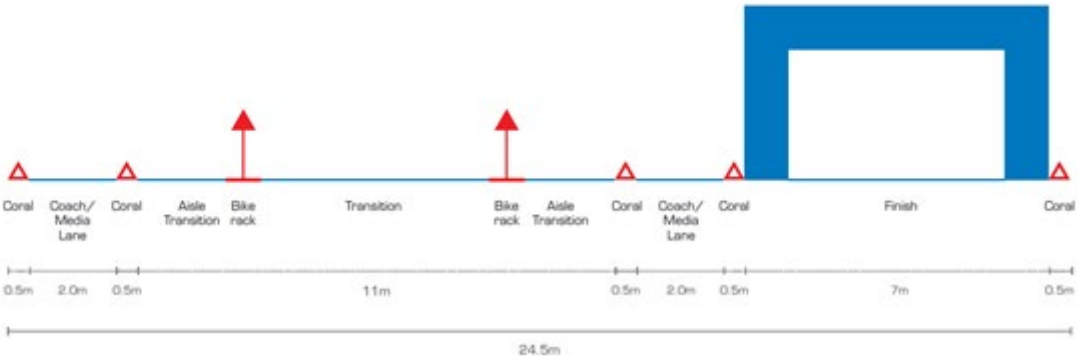
Table 24: Front of house Dimensions based on Specific Number of Athletes (Tokyo, 2020 Olympic and Paralympic Games)

	OG individual 55 athletes (both sides)	OG MROG MR20 teams x 4, both sides	Paralympics 10 PTWC (medal event with largest transition)
Total number of athletes	55	80	10
Corral (m)	0.5	0.5	0.5
Finish (m)	7	7	7
Corral (m)	0.5	0.5	0.5
Media lane (m)	2	2	2
Corral (m)	0.5	0.5	0.5
TZ (m)	11	7	6
Corral (m)	0.5	0.5	0.5
Media lane (m)	2	2	2
Corral (m)	0.5	0.5	0.5
Bike lane (m)	n/a	n/a	4
Corral (m)	n/a	n/a	0.5
Run lane (m)	n/a	3	3
Corral (m)	n/a	0.5	0.5
Total Width (m)	24.5	24	27.5
Total Length (m)	75	67.5	60

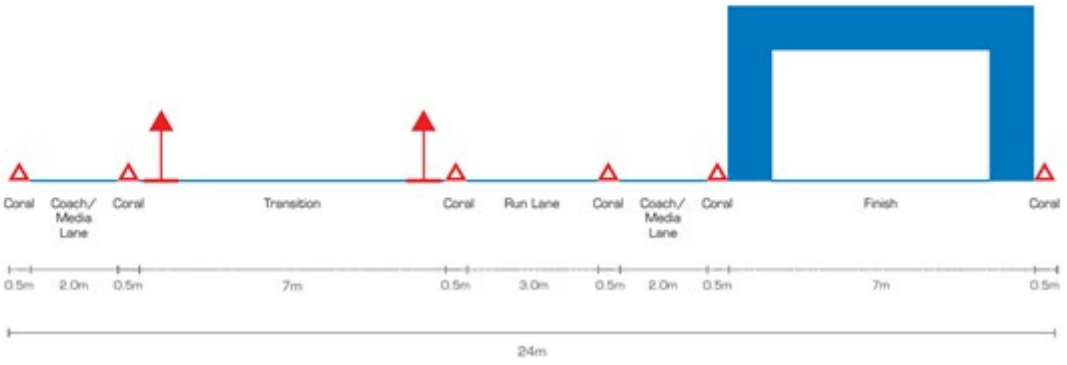
When the same venue is used for both Olympic and Paralympic events, we are looking for a length of 75m and width of 27.5m.

Picture 41: Olympic Style Transition and Finish Chute (ITU, 2019)

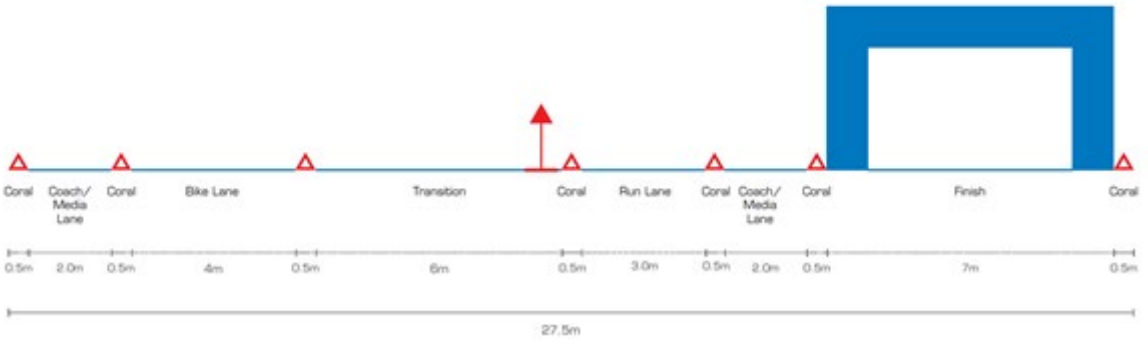
Olympic Style Transition and Finish Chute - Individual event
Sectional view



Olympic Style Transition and Finish Chute - Mixed Relay event
Sectional view



Olympic Style Transition and Finish Chute - Paralympics event
Sectional view



4.4.1.8 Age Group Transition Area – Specific Information

a) The transition area should be on a smooth surface, if on grass, it must be without holes or hazards and must be closely cropped;
b) The transition area must be wheelchair accessible;
c) The racks must be secured with a minimum of 5m between the rows;
d) Each AG athlete must be provided with a minimum width of 0.75m of rack space;
e) Each row of racks should only be one side for athlete's positions. If not, minimum 1m should be added to each athlete;
f) The transition entry and exit should be marked according to the specifications that can be found at the Transition Area Equipment section;
g) The design of the transition area will ensure that all athletes run an equal distance with or without their bikes;
h) The design of the transition area should be set-up so that there is no crossover of athletes;
i) The transition needs to be set-up and secured before the start of the check-in;
j) The design of the transition and the athlete's allocation should allow every athlete to re-check his/her equipment up to 30 minutes before the start of his/her wave and check out from 15minutes after the finish of the last athlete of his/her wave;
k) If Paratriathletes share the same transition, ensure that all Paratriathletes are using the same entrance and exit, and the Paratriathlon transition area should be set to provide the easiest possible access;
l) Plan for extra lighting in case of an early morning start;
m) It is recommended for the LOC to provide a big poster at the entrance of the transition area with the map of the transition layout that everyone can refer to before entering the transition area;
n) There is a danger of blowing the bikes away in high winds. To secure them the LOC can provide baskets to place under the front wheel as shown in the picture below:

Picture 42: Baskets Used for Securing the Athlete's Bikes in Windy Conditions (ITU, 2018)

TIPS

Five to ten free spots per category should be scoped for accommodating last minute changes of an athlete's category.

4.4.1.9 Middle and Long Distance Transition Area – Specific Information

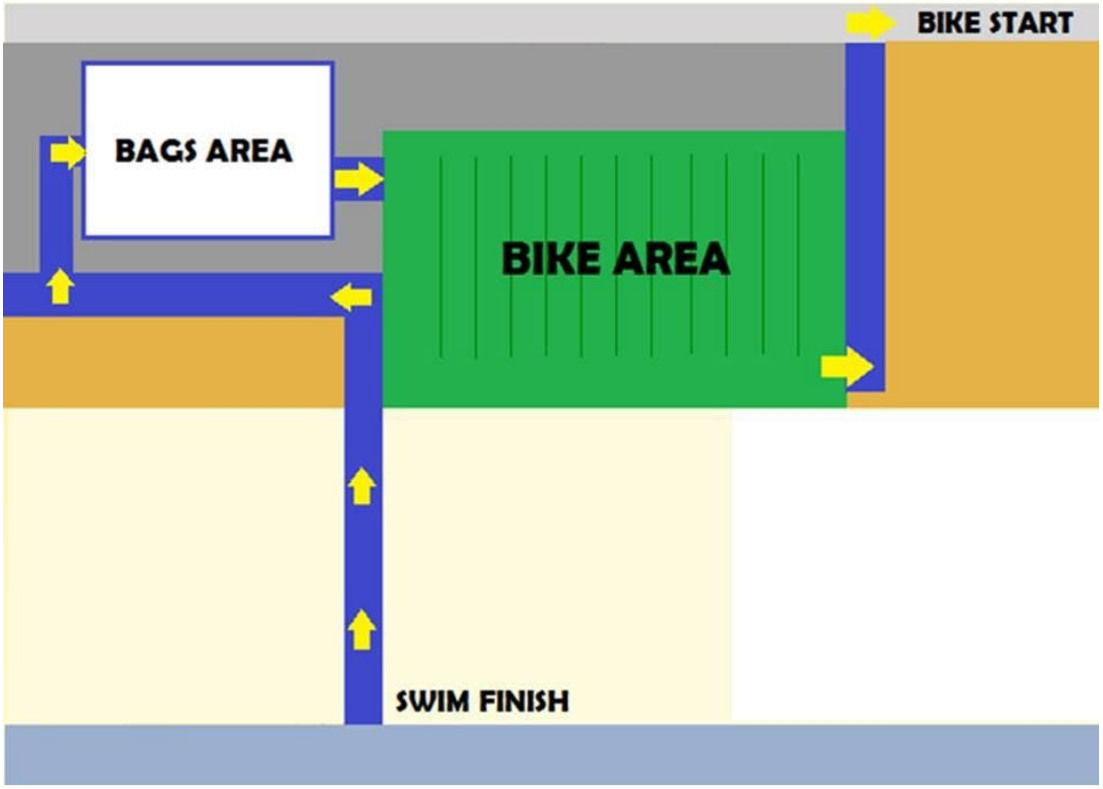
a) Each AG athlete must be provided with a minimum width of 0.5m of rack space where a gear bag system is provided by the LOC;
b) 3 kit bags need to be provided to allocate the different clothing for the event:
   - Blue kit bag - Bike Bag: to include the clothes to be used in the bike segment, and to add the swim gear after finishing the segment;
   - Red kit bag - Run Bag: to include the clothes to be used in the run segment; and
   - Green kit bag - Dry Clothes Bag: to include the clothes to be used after the race
c) The blue and red kit bags, must be deposited in a tent that the athletes will find after finishing the swim and bike segments respectively on entering the transition area.
d) A bag racking system should be created with two hooks per athlete's number preferably one above the other. Loose hooks can become a hazard, so it is recommended all hooks to be fixed (screwed) on long wooden boards.

Picture 43: Bag Racking System for Middle/Long Distance Events (ITU, 2019)

e) Different changing areas should be attached to this tent for men and women;
f) Sun screen and mosquito spray must be available at the changing areas.
g) During the second transition and after the dismount line, the athlete may give his/her bike to volunteers, who will rack the bike in the athlete's space. The athlete can continue straight to the tent to pick up the red kit bag;

h) The green kit bag will be deposited at the post-finish area (recovery area or different tent);
i) The LOC should provide enough volunteers to cover the above operations.

Diagram 19: Middle/Long Distance Events Transition Layout (ITU, 2019)



4.4.1.10 Cross Triathlon and Duathlon Transition Area – Specific Information

a) Bike racks must allow a minimum 1 metre per athlete.
b) Lowest race numbers should be closest to the exit.
c) A coaches' area is organised to allow coaching without interfering with the progress of the race.
d) Carpet is not required.

4.4.1.11 Winter Triathlon Transition Area – Specific Information

a) The general guidance to build this area is to allow a safe and fast transition and is listed in the FOP operations section of this document.
b) The transition must be on the snow. The perimeter and any configuration can be created with nets.
c) The bike and ski racks may be placed in distinct areas.
d) Bike and ski racks must allow minimum 1 metre per competitor.
e) Lowest race numbers should be closest to the exit.
f) In the case no ski racks are available a hole is drilled for each competitor’s skis to allow them to be placed vertically within 1m allowed.
g) The athletes should keep both the skis on one side of the bike. If it is not possible to fix them vertically, they should be placed on the ground.
h) Carpet is not required.

i) A coaches' area is organised to allow coaching without interfering with the progress of the race.
j) Upon exit of the bike and the start of the ski, many athletes protect the tips of their ski boots with socks, plastics, etc. and just take them off when they clamp their skis on. A littering area should be planned at that point.
k) Nordic blades changing area:
A "Nordic blades changing area" may be created at the side of the track.

Picture 44: Winter Paratriathlon Transition Area (ITU, 2018)

4.4.2 Transition Area Personnel

a) Staff and volunteers

- Transition entrances and exits must be controlled by clearly uniformed security personnel;
- There should be adequate numbers of trained volunteers to direct and manage the flow of athletes to maintain the order and the cleanliness of the transition area;
- The LOC has to provide volunteers to the transition area with the following roles: body marking (if no body decals are available), bike mechanic, "pump" team (if applicable), athletes' flow security; and for
- Long/Middle Distance: A team of bike catchers and wetsuit removal helpers may be provided.
- Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

b) Technical Officials

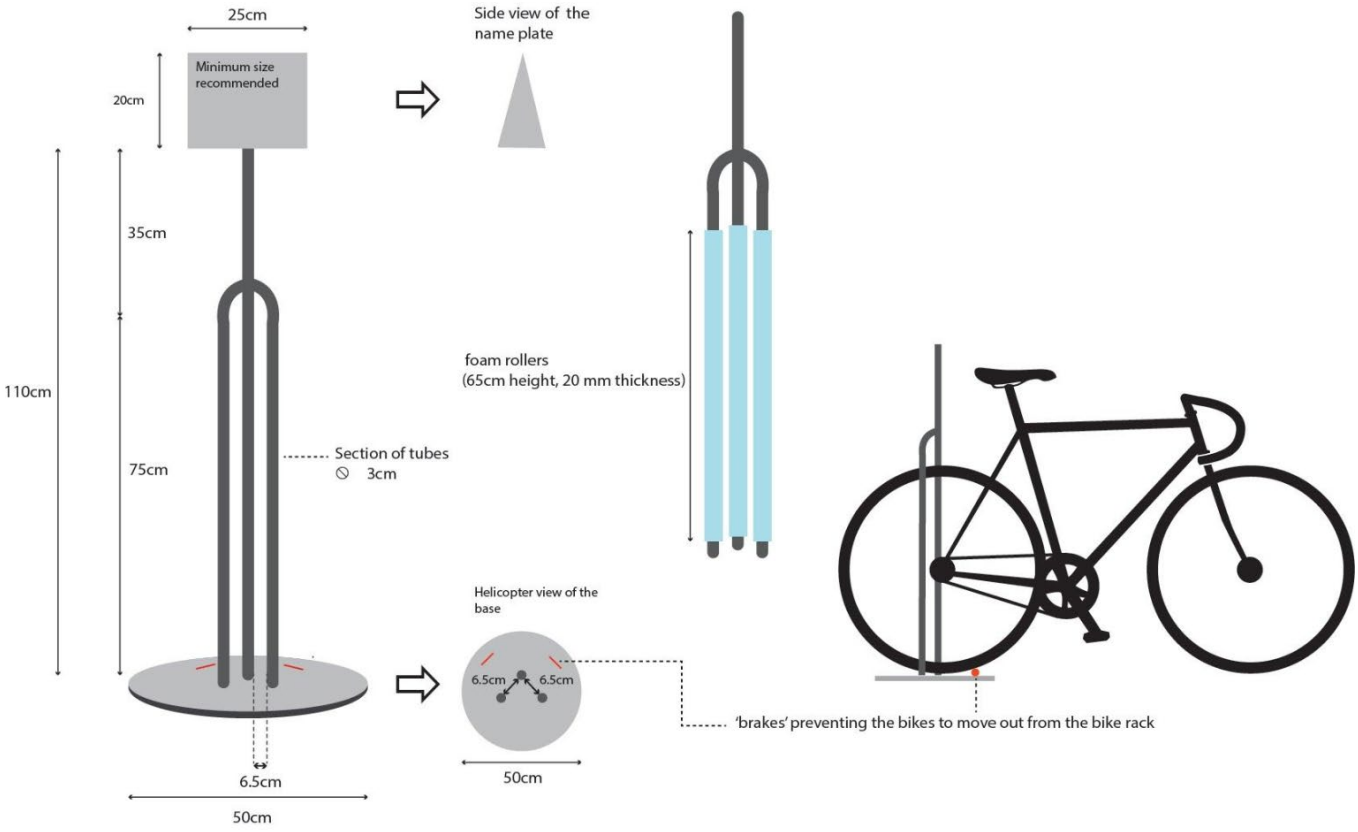
- The number of technical officials assigned to the transition area will be determined by the TD based on the number of athletes in the competition; and
- No other personnel are allowed in the transition.

4.4.3 Transition Area Equipment

a) Elite/U23/Junior/ Youth/Paratriathlon

- Bike racks
  - The preferred racks are the 'Olympic style' pods. The specifications of these racks can be found in diagram 15. The prototype of the bike rack should be approved by the TD;

Diagram 20: Bike Rack Specifications (ITU, 2019)



Picture 45: Bike Rack (London Olympic Games, 2012)

- The base of the rack should be at least 30 kg and the top can be replaced with a single vertical board.
- If standard metal tube bike racks are used, they must be firm and stable and 1.2m height from the ground;

- Bike Racks ID Plates
  - Each bike rack must have a laminated name card which is at least A4 W210 × H297mm including: athlete's last name, race number, 3-letter country code and/or flag;
  - The name plate must be waterproof board with Velcro or magnets. The specification of magnetic name plates are as follows:
    - Size: A4 (W210×H297×T0.3mm)
    - Adsorption power of magnet: 7.80g/㎠
    - Ink: Dye
    - Printed surface: Matte
  - The digit of the athlete's number should not be less than 180mm high and 15mm thick. The area of the size of the number should be at least 2/3 of the height of the name plate. The top/bottom tier should hold the ITU/LOC branding elements such as title events and logos. Please refer to the ITU Branding Guidelines.
  - The identification on the name card should be placed in such a manner that it is visible to spectators and unobtrusive to the athletes.
  - The name card should be fixed so that no wind or rain can affect its readability.

Picture 46: Athletes' ID Name Plates on Bike Rack Sample for Individual Athlete, Paratriathlete and Mixed Relay (ITU, 2019)

- Single position bike racks

Single position bike racks may be used in ITU competitions. The specifications are like the Olympic style bike racks except for a single wheel rack position instead of two.

Picture 47: Single Position Bike Racks (Aviles Triathlon, 2019)

- Carpet
  - The transition area should be completely carpeted in a blue carpet (pantone CMYK 2935 80%) from swim exit to transition exit;
  - The carpet should extend 2m before the dismount line and after the mount line;
  - The carpet has to be fixed safely on the ground with either double faced tape below the carpet, nails with washers without any edges that can create an accident and/ or a heavy duty anti slippery tape on the top of the carpet. Two pieces of carpet should always overlap by at least 0.02m in order not to have gaps between them, when the carpet shrinks due to high temperatures. The carpet's specification preferably should be:
    - Fibre – 100 PFX Stain Shield Staple Fibres
    - Fibre Weight – 820gsm
    - Total Weight – 1170gsm
    - Total Thickness – 7mm
    - Width – 2m
    - Location Grade – Sports Arena/Outdoor

- Equipment boxes
  - The LOC should provide a box for each athlete with dimensions: 0.45m x 0.3m, and 0.25m in height;
  - The boxes should be numbered with the athlete's race number;
  - In case of windy conditions during the event, a heavy object like water bottles can be placed in the box to prevent them from blowing away.

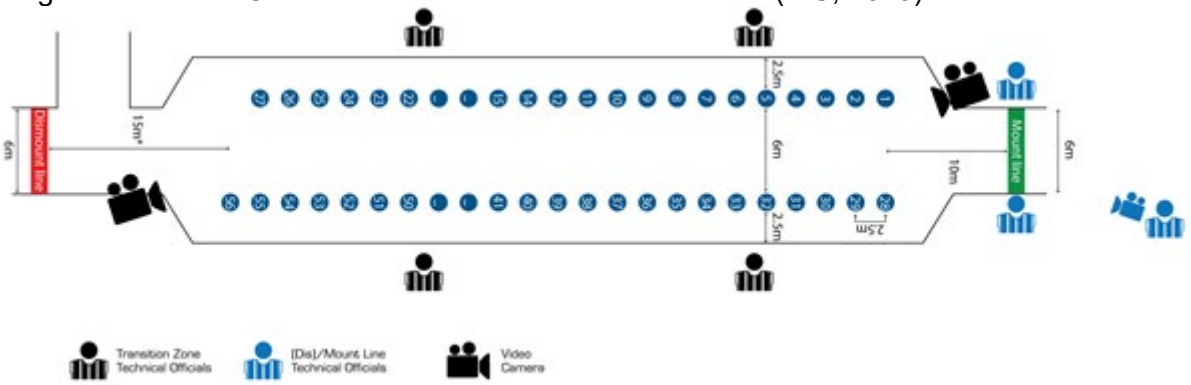
TIPS

The boxes should be placed next to the bike racks on the side which is closest to the dismount line. The athletes can move the box to the other side if there is enough space to accommodate 2 boxes next to one another.

- Video Cameras

The use of two video cameras is required to record the athletes' movements in the transition area. One camera should be focusing on the main transition area and one on the mount line that can then be moved to the dismount line. The cameras should be provided with tripods and rain cover (if applicable). The set-up of the cameras will be the responsibility of the officials.
The video cameras can be replaced with tablets.

Diagram 21: Video Camera Locations in the Transition Area (ITU, 2019)



b) Age Group

- Bike in/out, swim in, run out banners
  - Transition entry/exit points should be clearly visible to the athlete.
  - Use gantries, inflatable arches, or banners of minimum 4m2 and 3 to 4 metres high.
- Bike racks
  - If standard metal tube bike racks are used, they must be firm and stable and 1.2m height from the ground;
  - Bike positions should be clearly marked with a laminated card or sticker of 0.10m x 0.10m with the athlete's race number;
  - At both ends of each row, a 1m x 1m sign has to show the race numbers and Age Group categories that can be found in that row.
- Carpet
  - Use different colour of carpet per row (if applicable);
  - The TD will determine the areas in the transition area that must be carpeted.
- Toilets
  - Minimum of 6; For an event with more than 600 athletes, add 1 additional toile per 100 athletes;
  - If additional toilets are provided outside of the TA, this number can be reduced by the TD.
- Technological Fraud tents
  - For events where technological fraud checks will take place, the LOC should provide two closed tents 3MX3M at the entrance of the TA.
- Spare pumps
  - Athletes should be provided with the possibility to inflate their tires on site. In AG events and as pumps are not allowed to stay in transition, LOC shall dedicate a team of 'pump' volunteers during the transition area check-in time windows to support the athletes who need to inflate their tires. The number needed

is depending on the number of athletes registered and should be validated by the TD. A minimum of 5 pumps is required.

- Changing facilities
  - A changing tent may be required in standard distance events or shorter to be used by athletes due to religious beliefs.

4.4.4 Transition Area Procedures and Operational Plans

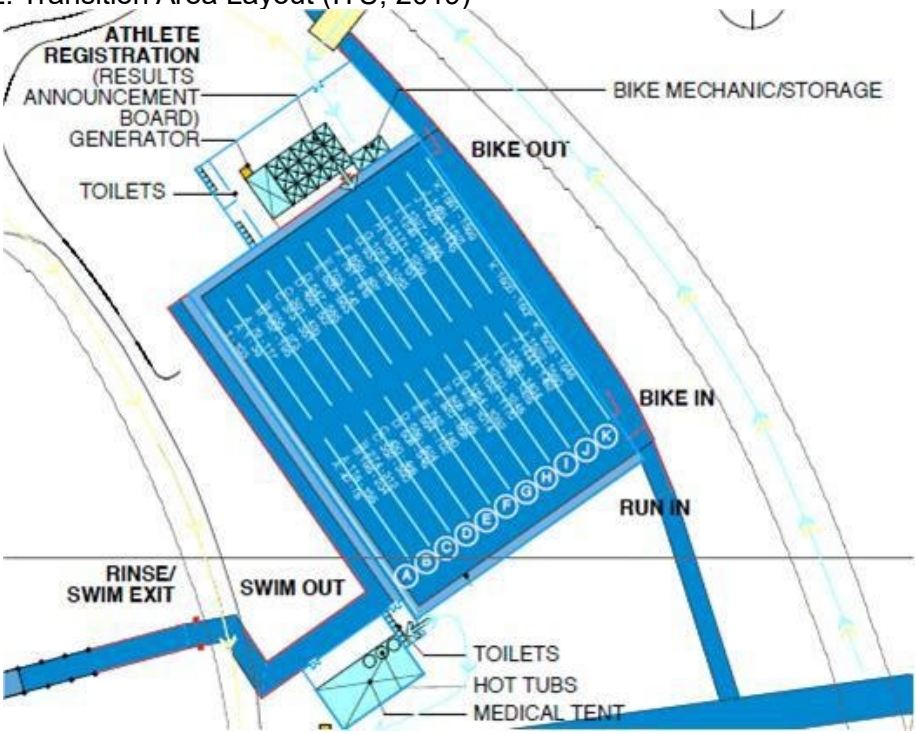
a) Elite/U23/Junior/Youth/Elite Paratriathlon numbering:

- The lowest number must be closest to the transition area exit; and
- If there are two rows of bike racks, the lowest number must be on the left side facing the exit of the transition area. The even numbers must be on one side and odd numbers on the other side.
- At Olympic Games, the numbers are sequentially distributed on the left side up to the half of the field, then the right side, with the lowest number on the left side facing the exit of the transition. (Note: this is different from the method used in our events at the bullet above)

b) Age Group numbering:

- Age Group athlete positioning in the transition will be determined by the order of their swim wave start time;
- At events where more than one AG race is hosted in separate sessions (sprint/standard) it is wise not to renumber the transition area. In these cases, the athlete's number should be one more digit than the expected number of athletes per race. The first digit refers to the race that they have entered and the rest of the digits, refer to the transition spot. For example, an athlete with 1234 race number and the athlete with 2234 will race in sprint distance "1" and standard distance "2" and they will have the same spot in the transition area "234";

Diagram 22: Transition Area Layout (ITU, 2019)



c) Mixed Relay Numbering
   - Each team has a race number and each member has the team's number followed by the letter A, B, C, or D depending on the order that they will start. "D" must be placed closed to the mount line.
   - At Olympic Games, the numbers are sequentially distributed on the left side up to the half of the field, then the right side, with the lowest number on the left side facing the exit of the transition. (Note: this is different from the method used in our events at the bullet above). "D" must be placed closed to the mount line.

4.5 Bike Course

4.5.1 Bike Course Layout

4.5.1.1 General

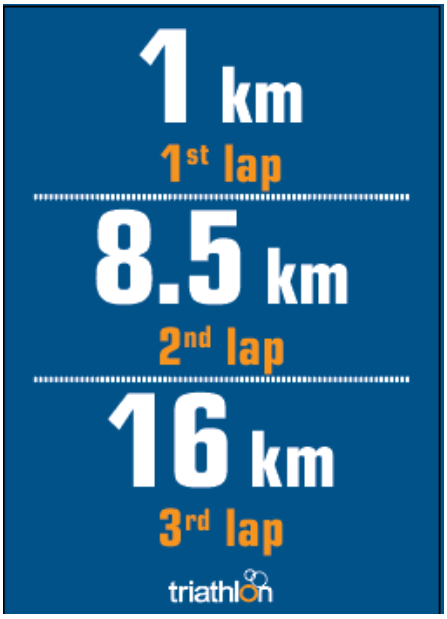
LINK

a) Number of laps (for distances check the ITU Competition Rules):
   - Elite/U23 standard distance: 6-8 laps (up to 12 laps for WTS events);
   - Age Group standard distance (draft illegal): 1-3 laps;
   - Elite/U23/Junior/Youth/ Paratriathlon sprint distance: 2-4 laps (up to 6 for WTS events);
   - AG sprint distance (draft legal): 1 lap if it is only on a one lane road or 2 laps if there are 2 lane roads per side. More laps are not allowed;
   - AG sprint distance (draft illegal): 1-2 laps;
   - Middle Distance/ Long Distance/ Aquabike: 1-3 laps;
   - Mixed Relay and Super Sprint: 1-4 laps;
   - Cross Triathlon and Duathlon: 1 lap for sprint and 1-2 laps for standard;
   - Winter Triathlon: 1-2 lap for sprint and 2-4 laps for standard

b) Course width for all events except Cross Triathlon/ Duathlon and Winter Triathlon preferably 6m;

c) Must be secure and totally closed from traffic;
d) The road surface must be hard, smooth and without debris or other hazards (not applicable for MTB);
e) Slippery surface in the corners must be avoided (e.g. marbles);
f) The corners of the bike course should not be carpeted;
g) Crossovers during the bike segment are not allowed;
h) The course should avoid railroad tracks, bridges with gates, drawbridges etc.;
i) Pedestrian crossings should not be within 100m of transition areas and turns;
j) Spectator bridges and crossing areas should be planned in areas with a high volume of spectators;
k) There will be no 180° turns on a 2-lane road;
l) Out and back courses will not be preferred unless there is at least a 1m buffer lane, or a grass or concrete meridian, separating the outgoing and incoming cyclists;
m) There will be distance markers every 5km. In case of multi-lap courses, the distance of the related lap is marked on the km marker of the first lap;

Picture 48: Distance markers (ITU, 2019)



n) In races with a lot of spectators, a dedicated area for coaches should be provided adjacent to the bike course. It will be secured from spectators with low fencing and managed by security personnel. The number of coaches' areas on the bike course will be determined by the TD;
o) Vehicle crossings are not allowed through an out and back section of the bike course when sharing the same road, unless a buffer zone in the middle exists;
p) Vehicle crossing are not allowed within 100m of corner;
q) It may be required to identify specific sections of the course as "no passing" zones where the athletes are not allowed to overpass another competitor, for safety reasons. These zones should be clearly communicated to the athletes and marked with signs. The signs should be placed 2m above the ground and the following signage has to be provided at every no-passing zone (Specifications can be found on Appendix 3):
    - 1x No-passing zone Start
    - 1X No-passing zone End
    - 1X No-passing zone 50m Ahead

Picture 49: No passing zones (ITU, 2019)

- The final bike course layout should be approved by the TD.

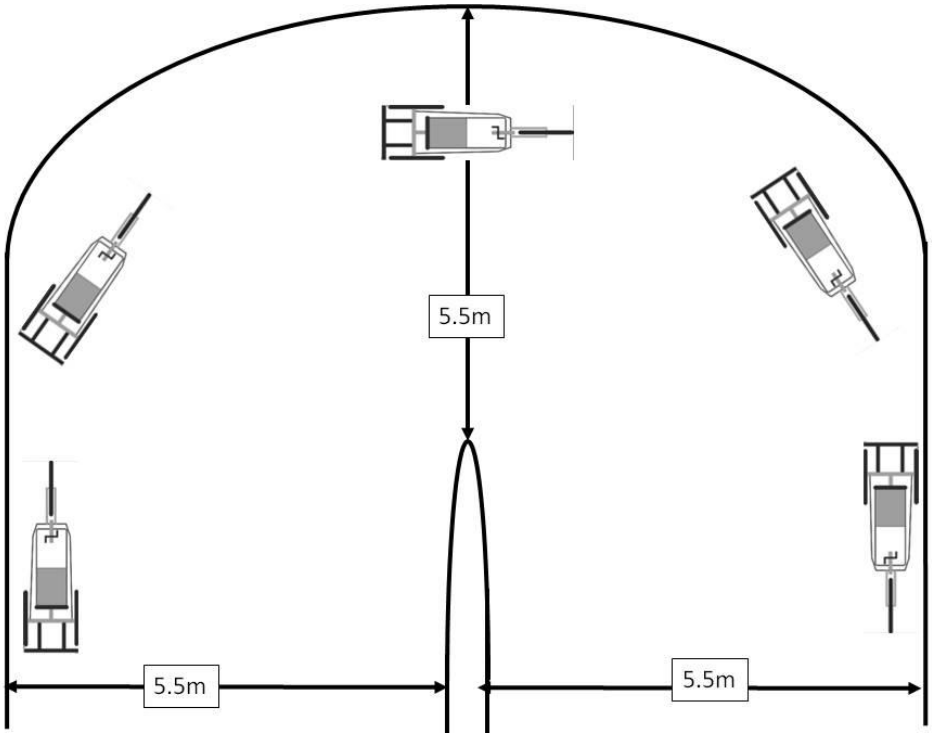
4.5.1.2 Elite/U23 Bike Course – Specific Information

a) Technical challenges: The Elite course should have a hill and/or several technical corners on each lap without imposing a high risk situation to the athletes. The final layout should be approved by the TD.

4.5.1.3 Paratriathlon Bike Course – Specific Information

a) Paratriathlon competitions are non-drafting events;
b) No bike course shall have a maximum gradient of over 12% at the steepest section;
c) The course should be wide enough to allow passing between tandem and hand-cycles;
d) Avoid any speedbumps or provide ramps, because the handcycles don't have enough clearance for their frame;
e) Avoid technical challenges, the bike course should be as simple as possible;
f) In case of a 180° u-turn, the turning radius cannot be less than 5.5m.

Diagram 23: Paratriathlon Course U-turn (ITU, 2019)



4.5.1.4 Age Group Bike Course - Specific Information

a) Technical challenges: The course should meet the competency challenges of an average cyclist. The final layout should be approved by the TD.

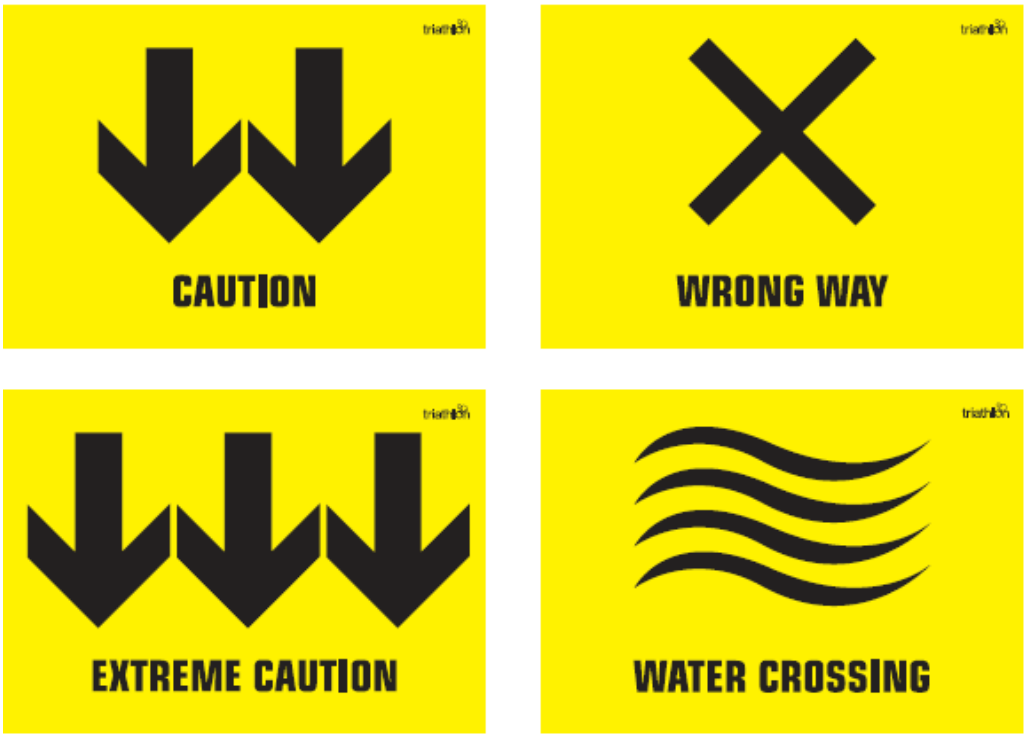
4.5.1.5 Cross Triathlon and Duathlon Bike Course – Specific Information

a) The course for a cross-country race should include, where possible, forest roads and tracks, fields, earth or gravel paths and significant amounts of ascending and descending. Paved tarred/asphalt roads should not exceed 15% of the total course.
b) Not less than 95% of the circuit must be completed by riding the bike.
c) The course needs to be designed so that there is a minimum chance for athletes to cut the course. In case of single tracks, a dedicated passing zone should be placed every 2.5km. This section should extend for at least 200 metres.
d) All obstacles or interesting sections must be highlighted and indicated.
e) The positions allocated to the marshals must be numbered and marked with a sign. This makes it much easier to indicate the sections where work may take place.
f) Steep and/or potentially dangerous downhills must be marked using safety tape. The tape is fixed to slalom marker poles, which are made of PVC or other materials, generally around 50 centimetres above the ground. Metal marker poles are prohibited.
g) At appropriate places along the circuit (for example, on walls, tree stumps or tree trunks), take measures to protect the riders by using several mattresses or add safety padding. The safety padding should be fixed in such a way that it does not give way on impact.
h) Every time the situation dictates (for example, at the edge of a precipice, a tight bend at the foot of a downhill), safety netting must be put in place. Any sharp-edged

wire netting is banned. It is possible to use a fine structure but with a hole size measuring a maximum of 5 cm x 5 cm.

i) Bridges and ramps made of wood must be covered with a skid resistant material (anti-slippery tape, carpet, etc.).
j) Where possible, roots, stumps, protruding rocks, etc. should be sprayed with fluorescent biodegradable paint to alert riders travelling at speed.
k) Large roots in damp single track sections may have notches cut in them which will not affect the tree they belong to, but will stop the tyres of the bike slipping along the root.
l) Wooden steps: If necessary, ensure they are well covered with anti-slip or have notches cut into them, which will stop the tyres of the bike slipping along the wood.
m) The course must be clearly marked out using safety tape, etc. In a situation considered potentially dangerous, a system of signs must be used.
n) An enlarged copy on a visible board near the registration tent is a plus. Show the system of arrows used as signs to avoid any confusion with a system that already exists.
o) An e-bike MTB must be used to clear the course and to warn the marshals and spectators of the imminent arrival of the riders (it must remain a good distance from the first rider so as not to hamper his or her progress). This will be ridden by a technical official
p) An e-bike MTB must also be used to close the course by remaining at a reasonable distance, (i.e. approximately 100 metres behind the last rider, so as not to hamper him or her progress). This will be ridden by a technical official.

Picture 50: Cross Triathlon Road Signage (ITU, 2019)




STRAIGHT AHEAD


RIGHT TURN


STRAIGHT AHEAD SLOW


LEFT TURN


ALTERNATIVE PATH
50M AHEAD

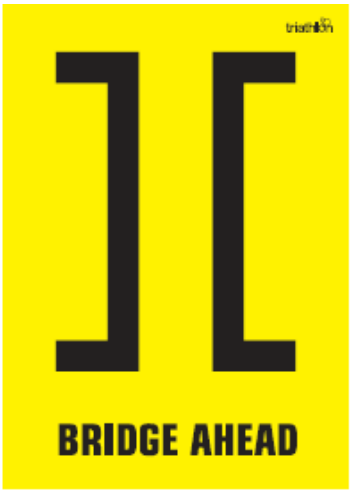

ALTERNATIVE PATH
START


ALTERNATIVE PATH
END


PASSING ZONE
50M AHEAD


PASSING ZONE
START


PASSING ZONE
END



4.5.1.6 Winter Triathlon Bike Course – Specific Information

a) The mountain bike section may be held on snow, on a draft legal lapping format.
b) Not less than 95% of the circuit must be feasible to be completed riding the bike when the Field of Play is planned. The circuit must be planned in a way that passing is possible on a majority of the course.
c) No motorised traffic besides officials and safety is authorised on the course.
d) Quads are preferable for the officials.
e) Directional signage should be placed 2m high.
f) Hot drinks should be available at aid stations.

Picture 51: Winter Triathlon Bike Course (ITU Winter Triathlon, 2018)

4.5.2 Bike Course Personnel

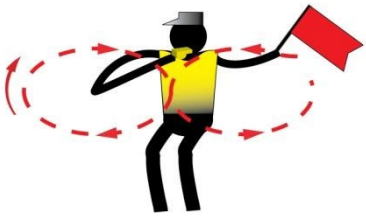
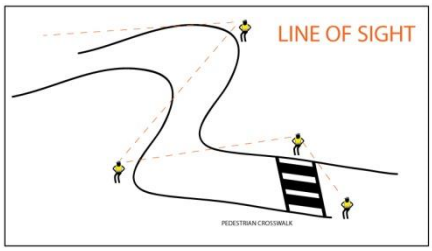
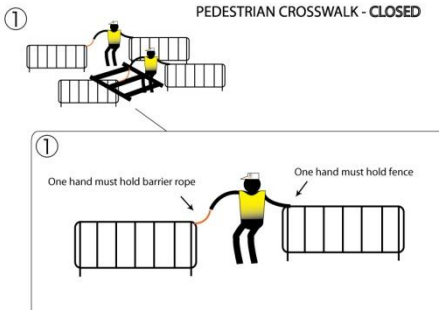
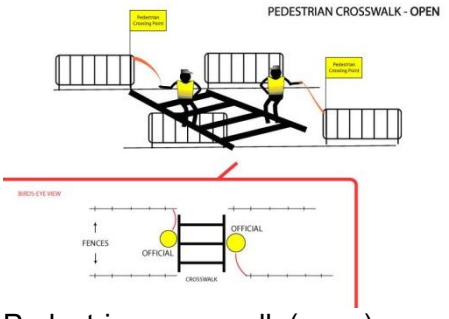
a) Police

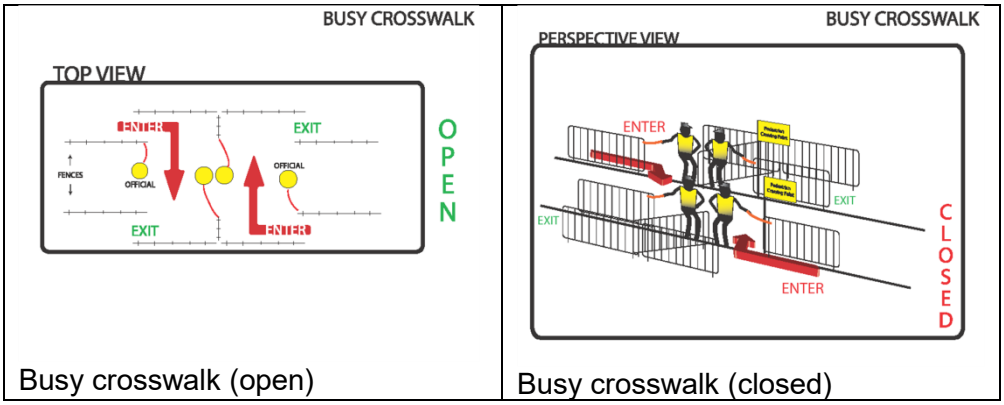
- Police or security personnel must be present at every access road, intersection and turn onto the course; and
- If there is a police motorbike on the course it must be a minimum 200m in front of the leader and only on the first lap of the bike.

b) Volunteers/ Marshalls

- Trained volunteers should be assigned to the bike course;
- Volunteers must be trained regarding first aid;
- The minimum number of volunteers is determined by the course layout and approved by the TD;
- All the FOP volunteers should attend a session on the basic ITU Competition Rules;
- The LOC should contact the Sport Department for further information regarding the FOP volunteers' training plan; and
- Each of the volunteers close to a pedestrian crossing or a corner should be equipped with a whistle and a flag. The use of the flag and the course marshalling procedure is shown below:

Picture 52: FOP Marshalling (ITU, 2019)

<table>
<tr><td> 
FOP volunteer (all clear)</td><td> 
FOP volunteer (no crossing)</td></tr>
<tr><td> 
FOP volunteer (alert caution)</td><td> 
FOP volunteers (line of sight)</td></tr>
<tr><td> 
Pedestrian crosswalk (closed)</td><td> 
Pedestrian crosswalk (open)</td></tr>
</table>



Busy crosswalk (open) | Busy crosswalk (closed)

c) Technical Officials – Draft Legal Cycle

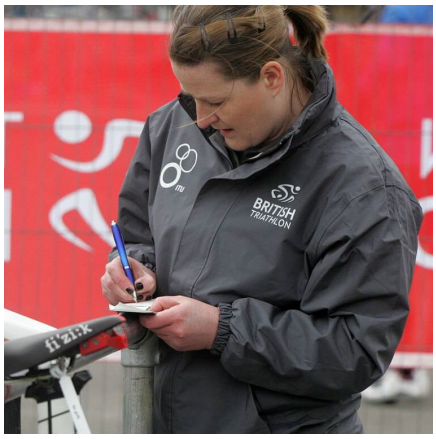
- The number of officials on motorcycles patrolling the bike course will be determined by the TD;
- One technical official on the motorbike will be responsible to monitor the last athlete and remove the lapped athletes from the bike course;
- A vehicle control official will determine the number of motorcycles on the course at any one time and monitor their behaviour;
- All motorcycle drivers on the field of play must meet with the TD the day before the event; and
- Everyone on a motorcycle must wear a helmet, long trousers and closed shoes while on the motorcycle.

TO BE PROVIDED BY THE EVENT ORGANISER/LOC

MOTORCYCLE HELMETS TO BE WORN	MOTORCYCLE GLOVES TO BE WORN
	

TO BE PROVIDED BY THE TECHNICAL OFFICIAL RIDING PILLION

WALKING BOOTS OR SIMILAR AS A MINIMUM (a boot with some level of ankle support)	LONG TROUSERS, PREFERABLY WORKWEAR (e.g. https://www.screwfix.com/p/site-beagle-trousers-black-34-w-32-l/40930)	LONG SLEEVE TECHNICAL OFFICIAL COAT AS A MINIMUM



d) Technical Officials – Draft Illegal Cycle
- The number of officials on motorcycles patrolling the bike course will be determined by the TD; and
- A vehicle control official will determine the number of motorcycles on the competition course at any one time.
- Everyone on a motorcycle must wear a helmet, long trousers and closed shoes while on the motorcycle.

e) Media
- The number of media motorcycles on the course will be determined by the TD and be monitored by the vehicle control official;
- For Elite competitions, two motorcycles should be available for the host broadcasting team, one motorcycle is available for pool media and still photographers and one motorcycle is for the ITU official photographer; and
- Media presence is generally not an issue during Age Group competitions. However, if present, they will be managed by the vehicle control official.

f) Medical
- Two paramedics on motorcycles should be available for the event;
- Medical personnel should be equipped with radios or cell phones;
- Ambulances should be placed at key access points along the course;
- Provisions should be made to get slightly injured athletes and their bikes back to the transition area without interfering with the field of play; and
- Refer to the medical plan section for the full event medical details.

g) Motorbike driver's instructions (ITU World Triathlon Auckland GF, 2012)
- The drivers must:
  - Be mature individuals who can demonstrate the required essential experience and skills (refer below);
  - Be available for pre-race training and meetings;
  - Have suitable large capacity, easily manoeuvered motorcycles (e.g. BMW RT models) with ample passenger space that are well maintained and have current vehicle registration and warrants of fitness;
  - Hold a valid motorcycle license;
  - Wear suitable riding gear and approved safety helmets according to the local police requirements;
  - Ensure that motorcycle fuel and oils levels are adequate for the entire event;

- Riders must be able to demonstrate:
  - Advanced road riding skills with superior stability at low to high speeds (5 – 100 kph);
  - Competence when riding with passengers;
  - Confidence and Reasoning – Riders will need to be able to confidently comply with the instructions given to them by their passenger, but must also be able to determine whether that instruction can be safely carried out and then take the appropriate course of action;
  - Advanced situational awareness while riding in very proximity to cyclists in all weather conditions;
  - Communication skills – riders must be able to clearly and concisely communicate with their passenger in an unambiguous manner;
  - Physical and medical fitness.
- During the event riders will always:
  - Maintain a safe gap between motorcycles and all cyclists, vehicles, pedestrians and obstacles;
  - Ride with headlights on low beam and with hazard lights flashing and, if available, wear a hi-visibility vest;
  - Avoid oncoming traffic, being aware that some cyclists may not have full situational awareness and some motorists are not aware of road closures;
  - Maintain situational awareness of the route and obstacles ahead (tight turns / gate ways, curbs, etc.). Riders must pay attention to the U-turns on the route;
  - Re-set the odometer to “zero” before the start of the bike segment to have a reference as to where they are on the course; and
  - Maintain personal hydration and energy levels as required.
- In case of an accident the rider should park the motorbike outside of the course and warn the oncoming athletes of the potential danger while the official attends to the athlete on the ground.

4.5.3 Bike Course Equipment

a) Fencing

- Hard fencing is required:
  - In high traffic areas;
  - On the road leading in and out of transition for at least 400m;
  - All corners; and
  - The fencing and barrier plan should be submitted to the TD for approval.
- For Major Games the whole bike course should be fenced;
- Soft fencing supported by individual metal or wooden posts is not allowed for safety reasons (except in Cross Triathlon and Duathlon and Winter Triathlon);
- Whenever branding elements are placed on the hard fences, it is required to provide additional support (vertical pieces of fence or weights) due to the possibility of strong winds.

b) Wooden Ramps

The following are not intended as instructions for the construction of a ramp, but as guidelines as to what points must, at a minimum, be considered during the design process and where there may be indications of potential inadequacy in the construction. When in doubt as to the structural integrity or carrying capacity of the ramp, a competent professional engineer should be consulted. Different countries/jurisdictions may have different requirements for temporary building structures (including ramps).

Before designing any wooden ramps on the bike course, the following points must be considered:

Overall

- "How high is it going to be?" and "How long is going to be?".
- The higher a ramp is, the greater the fall if something goes wrong.
- The longer the unsupported span is, the greater the bending (and compression) stress will be toward the centre of the unsupported span.

Loads:

- Consider all the loads that may be applied simultaneously during any given segment of a race (i.e. Is it possible that two motorcycles might be on the ramp at the same time? If so, consider two Goldwings at 545 kg each (plus riders plus gear). Can the ramp support that?
- Are there any lateral loads on the ramp (i.e. Is the ramp tall and skirted and likely to catch wind loading?)
- What forces are being applied by the rotating tires of a motorcycle?
- What sort of lateral bracing is required to ensure stability of the vertical supports?

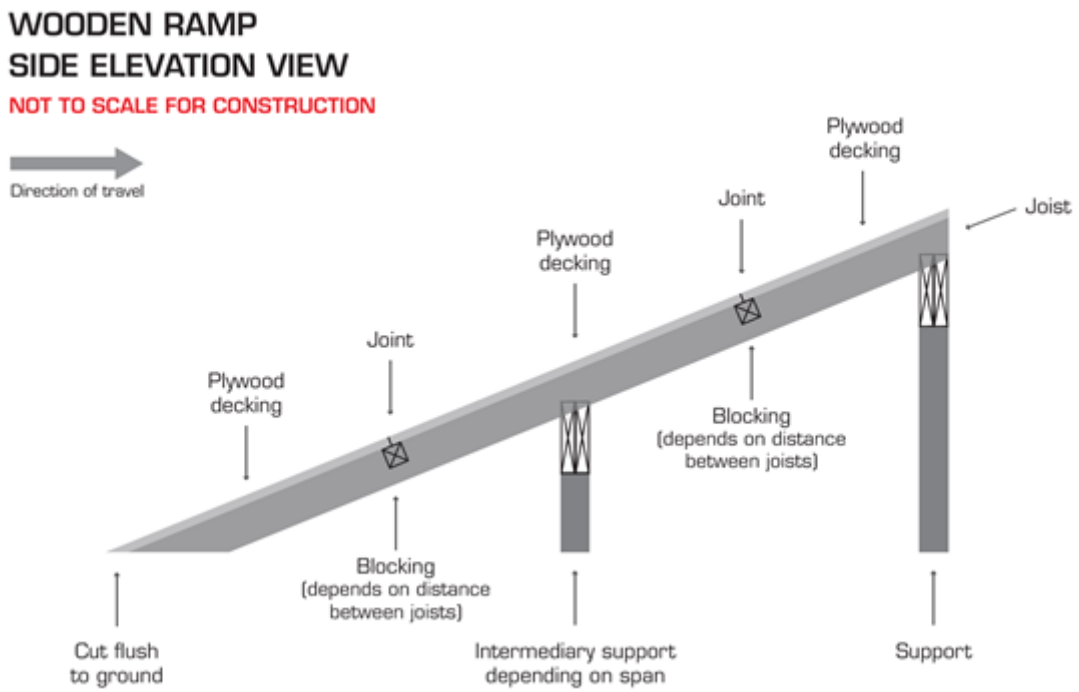
Materials:

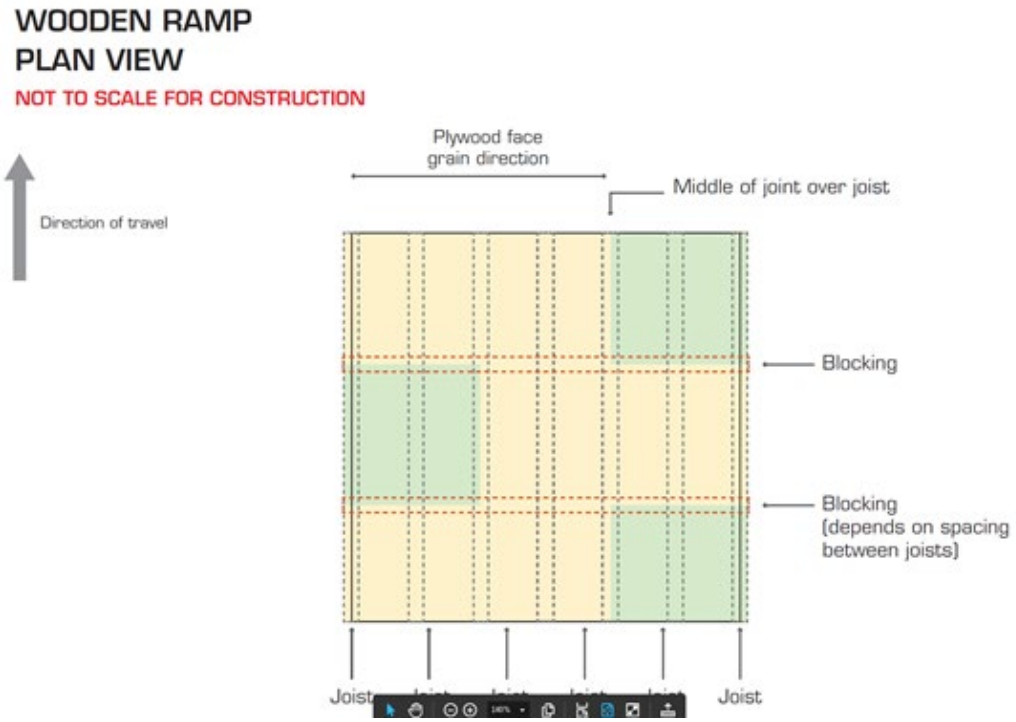
- Only use plywood and lumber that is structurally rated/certified and capable of carrying the loads applied during the race. Different countries will have different certification systems – i.e. (CE, CSA, JAS). Materials such as particle board or chip board that is not rated for structural use are not appropriate and subject to unexpected failure.
- Best practices: The face grain of the plywood should always run across (perpendicular to) the supporting joists. Plywood panels have different ratings depending on the axis laid across the joists (supporting members); if the grain is run parallel to the joists It will have a lower load carrying capacity.
- Joints between panels that are running parallel to the joists should NEVER be unsupported.
- Joints between panels running perpendicular to the joists can sometimes be unsupported, but blocking is a good idea as it reduces unevenness between the joints and increases the resistance to the rotation of the joists around their longitudinal axis (especially if the decking material is not secured properly to the joists).
- If using two layers of plywood, do not line up the joints between the top and bottom layers - stagger them.
- When fastening plywood panels to the joists, either screws or nails of sufficient length and suitable spacing can be used; for the same diameter, screws have higher withdrawal resistance, but nails have better lateral shear resistance.

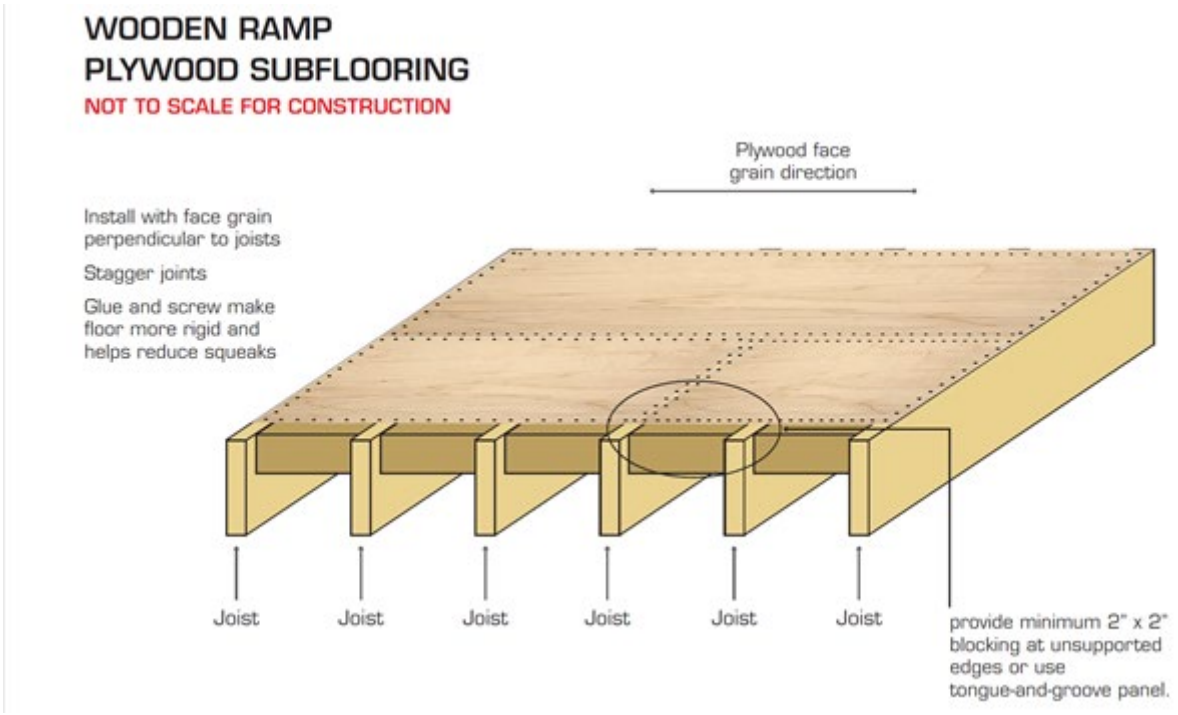
MAIL ITU

The final design has to be approved by the ITU TD.

Picture 53: Plywood Ramp (ITU, 2018)






WOODEN RAMP
PLYWOOD SUBFLOORING
NOT TO SCALE FOR CONSTRUCTION
Plywood face grain direction
Install with face grain perpendicular to joists
Stagger joints
Glue and screw make floor more rigid and helps reduce squeaks
Joist
Joist
Joist
Joist
Joist
Joist
provide minimum 2" x 2" blocking at unsupported edges or use tongue-and-groove panel.


ERDINGER ALKOHOLFREI
Supports (joists) insufficient in number to carry load and in the wrong places

c) Temporary resurfacing
It's quite common to have as part of the bike course, short sections, that are risky to cycle through and at a minimum a temporary solution is required (cobblestone areas, manholes, potholes). For these sections, a simple technique can be applied, where a piece of fabric is laid on the area and is leveled with cold asphalt. Following the race, the fabric with the cold asphalt can be removed without damaging the area.

Picture 54: Temporary resurfacing (ITU, 2019)

Picture 55: Temporary resurfacing (ITU World Triathlon Stockholm, 2016)

d) Motorbikes
The minimum bike requirements are:
- Motorbike with driver – minimum 600cc – enough space for 2 people – helmet must be provided for both; or
- Motorbike without driver – minimum 250cc – automatic moped type – helmet must be provided.
- Laminated signage should be provided for the motorcycles (official vehicle).

e) Toilets
In Middle Distance and Long Distance events, toilets should be provided every 20km.
For the elite/ u23/ junior standard and shorter distance events, toilets are optional at the bike/ run penalty box, wheel stations and aid stations.

f) Cones
The use of cones is not recommended especially during draft legal races where big groups can be created. Instead water-barriers should be used. If not, the cones should be placed:
- Starting 5m before, during and after the corner, the cones should be placed a maximum every 0.5m; and
- On the rest of the course, the cones should be placed at a maximum distance of 6m.

Cones are not allowed for Olympics, Paralympic Games and their test events due to the increased risk of an accident.

g) Signage
The number of signs that have to be provided can be found listed in the different sections below and their specifications at Appendix 3 (bike penalty box, wheel station etc.);

- Any course directional signage and pedestrian crossing signage that needs to be provided should follow the ITU signage.

Picture 56: Directional Signage and Pedestrian crossing (ITU, 2019)

TIPS

A detailed plan of the bike course equipment deployment should be created with the exact location of the equipment and the distribution timelines. This plan should be approved by the TD and included in the daily activities schedule (Appendix Section).

h) Protection
In all sharp corners, there should be crash protection placed against the fences. Protection mats, or wrapped hay bales should be used. It may be required to provide additional support behind the fences with vertical pieces of fence for better stability.

4.5.4 Bike Course Procedures and Operational Plans

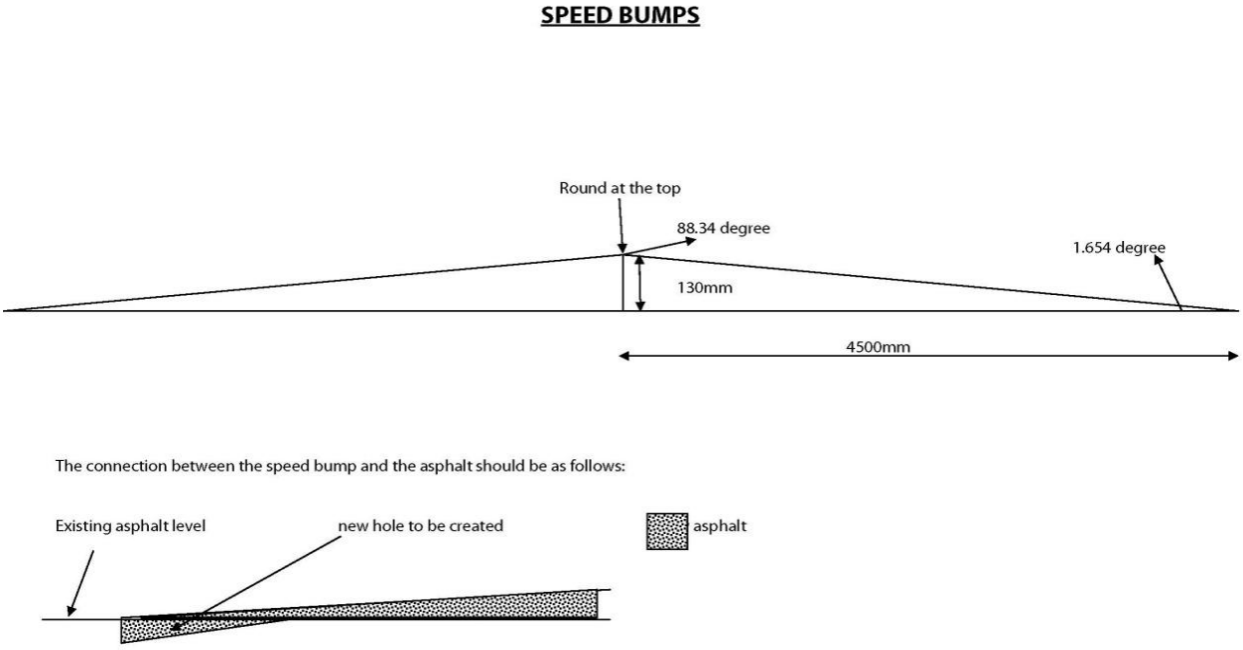
a) General

- All roads must be swept prior to competition (except Winter Triathlon and Cross Triathlon/Duathlon);
- Course measurement: A GPS will be used to measure the bike course, which must be the exact needed distance. The tolerance margin that can be accepted for the distance of the bike segment is determined in the ITU Competition Rules;

- A timing point should be placed at all the farthest points of the course unless otherwise advised by the TD. The ITU TD should approve these locations.
- Encased or covered plastic straw bales or similar safety devices must be used to protect athletes on sharp corners and around dangerous objects;

b) Speed bumps
If speed bumps or other anti-speeding devices exist on the course, they must be removed or covered with matting, ramps or other 'smoothing' devices. The following elevation is acceptable for speed bumps:

Diagram 24: Speed Bumps Covering (ITU, 2019)



c) First Runner- last biker scenario
In draft legal events, if the bike and the run course are sharing parts of the same route, we are faced with the first runner last biker scenario. This is when the lead runner is on the course and there are still bikers coming behind him/her. To avoid such cases, the number of the run laps should not be more than half of the number of the bike laps [i.e. Number of Run laps ≤ (Number of Bike laps) / 2]. Any remaining bikers should be stopped at the point where the course is shared with the runners.

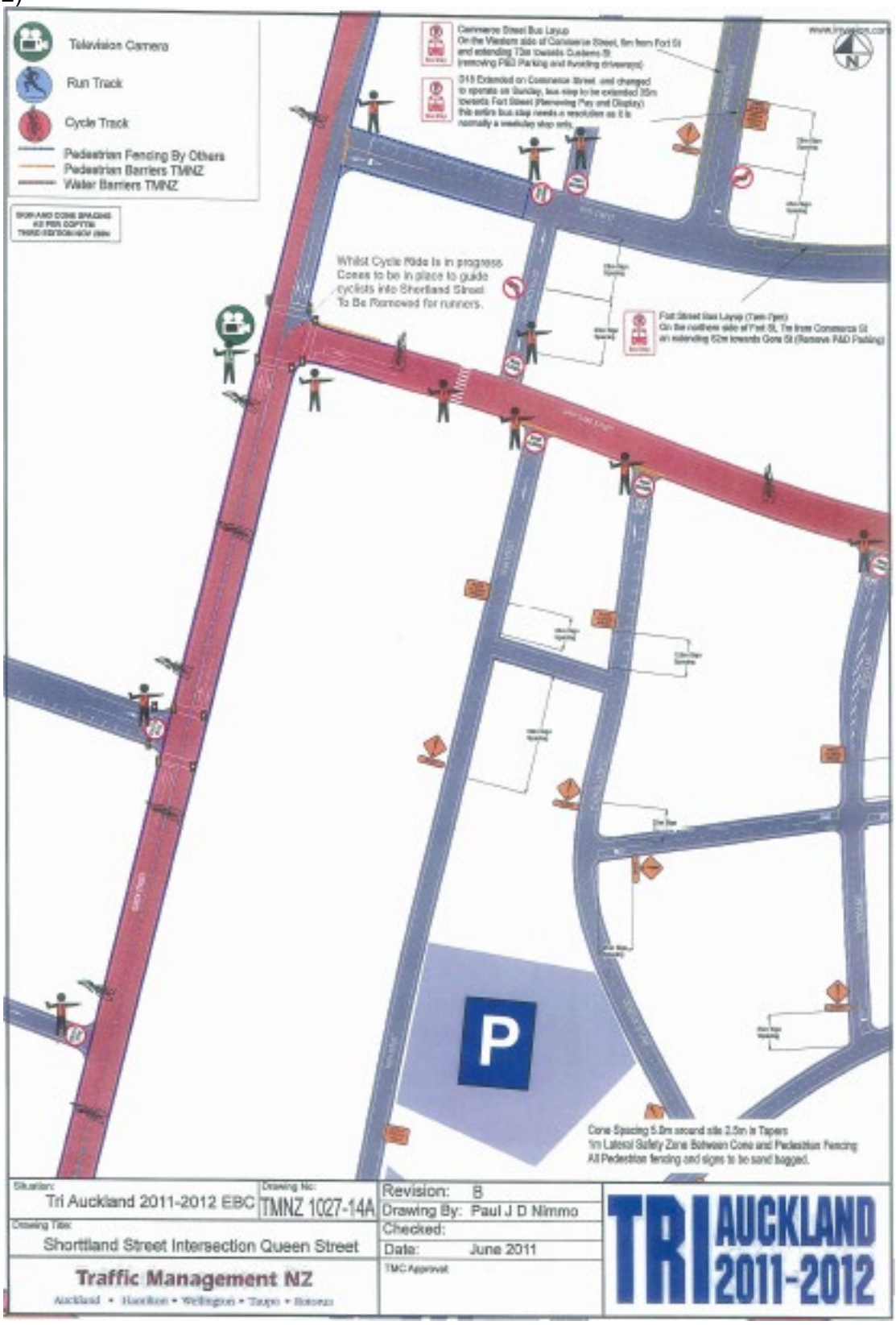
d) Race Warning Flag System
A flag system is used for keeping all the bike course personnel informed of the event's progression. All the flags should be carried preferable by the TO's motorbike for one lap.
- Yellow flag is deployed when the start has been given;
- Red flag is deployed when the first athlete is out of the swim course;
- Green flag is deployed behind the last athlete on his/her last lap on the bike.

e) Operation Plans
Several operational plans need to be reviewed to guarantee the athletes' safety and the fairness of the course. The level of detail included in each of the plans will be determined by the TD according to the level of competition.

- Traffic management plan- This plan should include:
  - The proposed course and the lane/ closure information;
  - Identification and assessment of the traffic impact;
  - Detailed traffic management measures;
  - Assessment of the public transportation management affected;
  - Details of provisions made for affected emergency vehicles, heavy vehicles, cyclists and pedestrians;
  - Assessment of the effect on proposed traffic management measurements on traffic movements in adjoining streets;
  - Proposed public tenant notifications.
  - Road closure: The length of the road closure applied to an event varies depending on the layout of the course, its location and the complexity of the course set-up. Parking restrictions are advised to start hours before the road closure to minimise its impact on the course readiness. In general, the course readiness should be confirmed not later than 15 minutes before the start of the race.
  - Road closure in Middle/ Long Distance events: It may be allowed to have a rolling road closure system, where the last sections of the bike course can close at a later stage than the rest of the bike course. The layout of the course, its location and the complexity of the course set-up will determine these timelines. In general, the course readiness of the specific bike sectors, should be confirmed not later than 45 minutes before the lead athlete reaches that point. For these events, ITU has developed a road rolling closure inspection (RRCI) system, where a lead vehicle with an ITU official is inspecting the course 30 minutes ahead of the first athlete. A second vehicle with an ITU official is verifying the course 15 minutes ahead of the first athlete. Both vehicles are in contact with the VCC and are reporting issues on the course.
  - To any vehicle out of FOP that has been blocked within the road closures of the event, an information card containing the contact number of the event's Command Centre or Race Director, should be placed on the windshield of the vehicle.

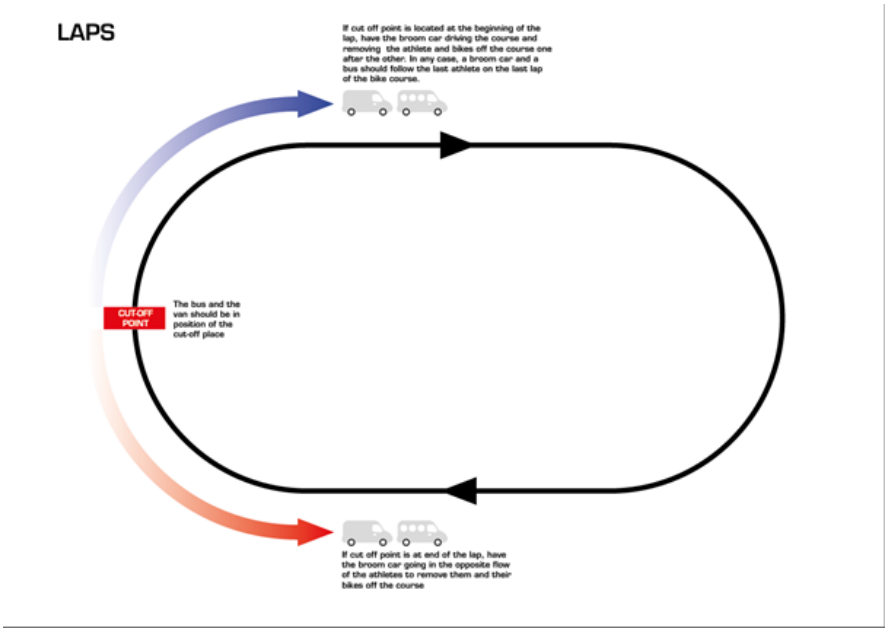
Picture 57: Vehicle Information Card (ITU, 2019)

Picture 58: Traffic Management Plan Sample (ITU World Triathlon Auckland Grand Final, 2012)

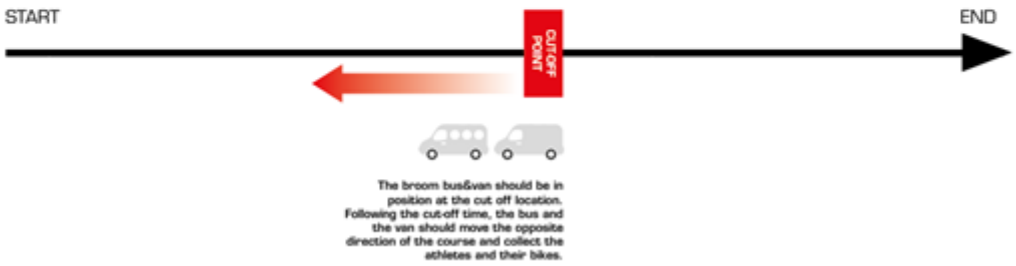


- Bike operational plan- A detailed bike operational plan should be submitted to the TD for approval which includes:
  - The sector break down of the bike course;
  - Volunteer positions and the contingency plan;
  - Volunteer job description;
  - The pedestrian crossing points;
  - The emergency evacuation routes;
  - The check-in/ out process of the volunteers;
  - The transportation and food services of the volunteers;
  - FOP equipment distribution.
  - We recommend the use of Google Earth software to create the event course operation plan. For consistency purposes, please follow the guidelines of the Appendix xx
- Broom van and broom bus: The LOC must put in place a system to collect athletes that remain on the course after the designated cut-off time and location. They should have a van to collect the bikes and a bus to collect the athletes. A TO should be part of this process. A recovery kit should be given to each of the removed athletes with a bottle of water, a recovery drink and a piece of fruit.
  - Point to point courses: The bus and the van should be in position of the cut-off place. Following the cut-off time, the bus and the van should move in the opposite direction of the course and collect the athletes and their bikes.
  - Multi-Lap courses: The bus and the van should be in position of the cut-off place. In the case, that the cut-off is applied at the end of the lap, following the cut-off time, the bus and the van should move in the direction of the course and collect the athletes and their bikes. If the cut-off is applied in any other location the van and the bus should move in the opposite direction.
  - In any case, a broom car and a bus should follow the last athlete on the last lap of the bike course.

Diagram 25: Broom Cars (ITU, 2019)



POINT-TO-POINT



- Tracking leaders (Bike/Run) in Long Distance events
  - In LD events, the positions of the first athletes (men/women) on the bike and the four athletes of the men and women on the run is continuously monitored.
  - The tracker should not lead, pace or inform the athletes.
  - Each tracker places himself behind the athlete to have them in sight at all time.
  - The Trackers do not enter the finish chute
  - The Tracker's position is not interchangeable. The tracker follows a position and not an athlete. A tracker never overtakes another tracker.
  - Personnel / equipment
    - 2 motorbikes and 4 mountain bikes with pilots, helmets and protective equipment, if necessary.
    - 6 high-visibility vests.
    - Identification plates to fix to the motorbikes/mountain bikes: "1st athlete Men", "2nd athlete Men", "3rd athlete Men", "4th athlete Men" and same for women.
    - Ideally, trackers should have a radio connected to the VCC.

Picture 59: Athlete tracker plate (ITU, 2019)

4.5.5 FOP Bike Risk Assessment

An assessment of all the potential risks that can affect the athletes should be conducted by the LOC and the Technical Delegate.

A Risk Assessment Form has been developed by the ITU Sport Department to:

- Address the main hazards of the bike course in a Triathlon event;
- Identify the key stakeholders affected by the risk;
- Evaluate the hazards and overall risk (likelihood, impact, severity);
- Identify responsibility of hazards; and
- Manage the risk.

a) Identifying the key stakeholders affected by the hazard
- "Who is affected if something goes wrong?"-

The identified key stakeholders that are impacted by an ITU triathlon event are:

- participants (athletes);
- spectators; and
- public/ local community.

b) Identifying the hazards
- "What could harm our stakeholders?"-

- The identification of the risks has two stages; determining what can go wrong (hazards) and establishing how it can happen.
- The focus should be given to the technical challenges on the course with attention to the following areas:
  - Cat's eyes;
  - Manholes;
  - Fuel / grease traps;
  - Road surface instability and quality;
  - Bridge expansion joints;
  - Centre- crack in the roads (3mm);
  - FOP equipment (cones, fences, scrim, signage, barrier tape, water barriers, directional signs);
  - Curbs;
  - Draining systems and grates;
  - External objects on the course due to strong wind (trees, construction materials);
  - Intersections;
  - Narrow roads/ road side drop-off;
  - Old road – bricks/ brick dust;
  - On-going building construction;
  - On-going road construction;
  - Potential flooding, flash flooding;
  - Potholes;
  - Railroad tracks;
  - Tramway tracks ;
  - Road islands or medians;
  - Sand;
  - Speed bumps;
  - Steel construction plates;
  - Tunnels and arches;
  - Markings/ arrows;
  - Wooden/ plastic coverings or surface;

- Uneven roads.

c) Evaluating the Hazard
   - "How likely is this hazard to take place?" (Likelihood/ Probability) –
   - "How much will it affect the stakeholder if it happens?" (Impact) -

- Answering the above questions will give the severity of the risk, which determines the overall level of risk for each hazard. Evaluating risks is about setting an order of priority to deal with them.
- Low risk should be acceptable with routine procedures. Medium or high level risks should be dealt with to reduce the likelihood/ impact. Critical risks are unacceptable and must be eliminated or reduced.

d) Identifying responsibility of the hazard
– "Whose job is it to mitigate this hazard?" -

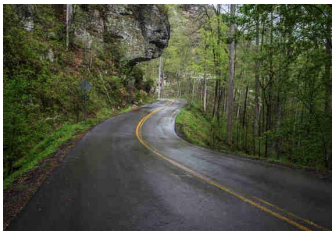
- Identify and allocate who is responsible to take an action to minimise/ distribute/ eliminate the risk.
- Minimising risk is about reducing the likelihood a risk will become a reality and the impact it would have if it did.
- Distributing risk means that you don't eliminate the risk, but the way you deal with it reduces the severity of the current hazard by transferring part of the ownership to another domain.
- Eliminating risk means that you minimise the likelihood and impact of the hazard to zero.

e) Mitigating Risk
After evaluating the risk and having identified ownership, the next step is to find a suitable solution to distribute or minimise the risk if we cannot eliminate it. The below table provides sample solutions on mitigating risks for the specific hazards on the bike course. The list is not exhaustive and it should be adjusted to the needs of the different event.

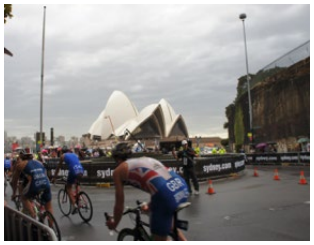
Table 25: Possible Solutions for Mitigating Risk

Hazard	**Measures to reduce Risk**	**Picture**
Cat's eyes	Remove or mark with spray/paint Inform athletes of locations at the Briefing Note: be aware of potential holes below the cat's eyes	
Manholes	Mark with spray/paint (if dry conditions are expected), otherwise cover with anti-slippery tape) Avoid/Exclude from the course (use cones) if the course of the athletes is not affected.	

Fuel / grease traps	Use sand or chemicals to absorb the fuel and swipe thoroughly before the race starts. This section has to be excluded from the course if a return to its original condition is not possible.	
Pavement is stressed	Resurface or avoid if possible Use volunteers to slow athletes down before entering to this area.	
Loose surface	Resurface or avoid if possible Use volunteers to slow athletes down before entering to this area.	
Bridge expansion joints	Cover Mark and inform the athletes at the Briefing (note: be aware of the gap of the expansion joint)	
Centre- crack in the roads (3mm)	Fill with temporary asphalt	
FOP equipment (cones, fences, scrim, signage, barrier tape, water barriers, directional signs)	Place them outside of the course of the athletes and in a way that directs the athletes without interfering with the natural flow. (Note: in corners or narrow sections, the athlete should not have the possibility to go through the FOP equipment)	

Curbs	Create smooth a ramp with temporary asphalt or wood)	
Draining systems and grates	Cone out these areas as much as possible and mark	
External objects on the course due to strong wind (trees, construction materials);	Volunteers slowing athletes down	
Intersections	Clear separation of flows with barriers	
Narrow roads/ road side drop off	Use barriers to make the sides more visible	
Old road – bricks/ brick dust	Cover with temporary asphalt. If not, have volunteers at the identified areas to swipe thoroughly In any case, this should be avoided in wet conditions or Paratriathlon events	
Potential flooding, flash flooding	Drain the water with pumps, sweep the water outside the course or exclude the area from the course	

Potholes	Cover with temporary asphalt	
Railroad tracks;	Create a wooden ramp for the athletes to pass over or cover the track with thick rubber material with anti-slippery surface	
Tramway tracks	Cover with small steel plates (about 5m long and 15cm wide, depending on the depth) and then place anti-slippery stickers on top	
Road islands or medians	Place volunteer with a flag and a whistle	
Sand	Sweep thoroughly	
Speed bumps	Remove if possible Create ramps to mitigate the elevation, and Inform athletes at Briefing	
Steel construction plates	Exclude from the course	

Tunnels and arches	Add lighting in tunnels Put the athletes in single file before the entrance if necessary	
Markings/ arrows	In case of wet conditions, slow down the athletes at the corner where road markings exist by creating a sharper turn (Cone the areas out from the course if on sides)	
Wooden/ plastic coverings	Exclude from the course in case of wet conditions	

TIPS

If possible, undertake the risk assessment at the same time and on the same day of the week as the event to have a better overview of the traffic flow on the day etc.

TOOLS

It is advised that the LOC's bike course manager will conduct this Risk Assessment Form, ideally together with the TD, starting the earliest 6 months and the latest 3 months prior to the event.

After conducting the risk assessment on the bike course, an action plan should be created to reduce the potential risks in areas that have shown a high severity number. Following the actions taken to reduce the risk, the LOC, together with the TD, need to go through the list to see if the identified hazards have been satisfactory resolved or if extra measures need to be taken.

Table 26: Risk Assessment Form Sample (Kitzbuehel ETU Triathlon European Championships, 2014)

Route risk assesment

Event:	Kitzbuhel 2014 ECH
Event Category:	Elite
Date:	09.04.2014
Prepared by:	DM

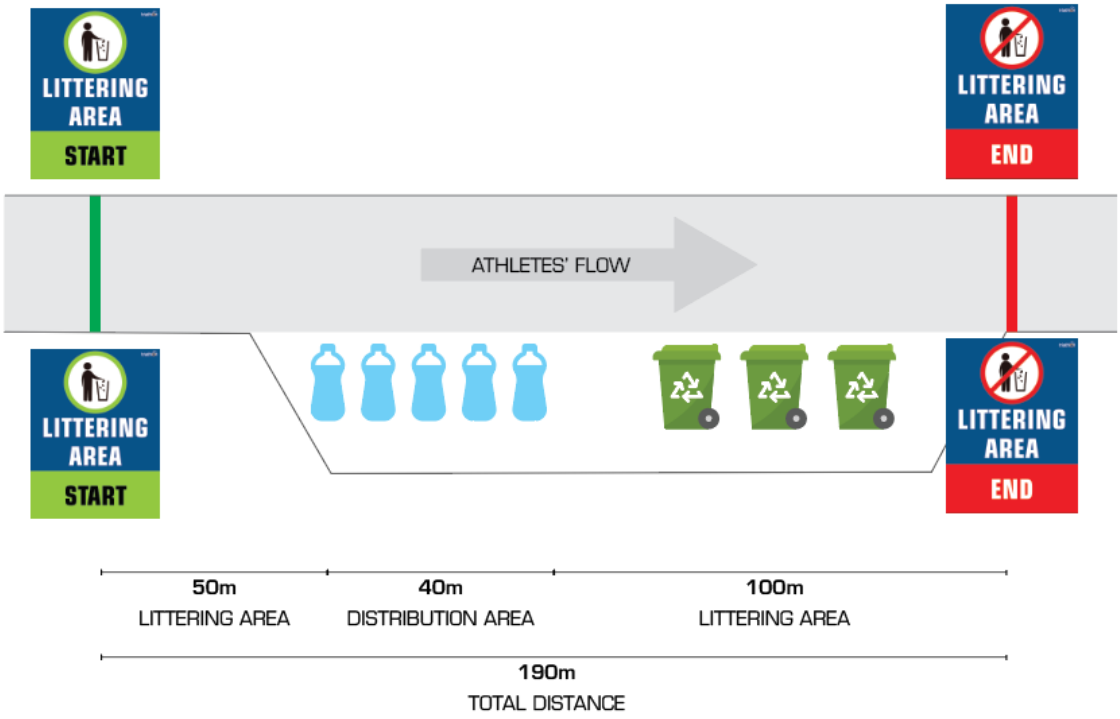
Hazards ID						Site Visit						6-month prior to Event Assessment				
No	Meters	Description of Hazard	Details of Hazard/ Cause (How it can happen)	Road/location name	Persons/ Equipment at risk from Hazard	Probability/ Likelihood	Impact	Severity	Measures to reduce the risk	Risk Ownership/ Allocation	Notes	Probability/ Likelihood	Impact	Severity	Difference from previous assessment	Notes
	from start of location	Define the nature of the hazard				1: Rare (<5% likelihood of occurance) 2: Unlikely (5-29% likelihood of occurance) 3: Moderate (30-69% likelihood of occurance) 4: Likely (70-89% likelihood of occurance) 5: Almost certain (90%+ likelihood of occurance)	1: Insignificant (No Risk, no recovery time or medical assistance) 2: Minor (Risk of Low to moderate injury / Race disruption) 3: Moderate (Risk of Moderate to serious injury / Race disruption) 4: Major (Serious injury, fractures, crash injuries / Race cancel) 5: Extreme (Death, hospital for 6+ weeks)	Green: Low Risk Amber: Moderate/ High Risk Red: High Risk (Risk will not be accepted until mitigating action have reduced the risk to tolerable)				1: Rare (>5% likelihood of occurance) 2: Unlikely (5-29% likelihood of occurance) 3: Moderate (30-69% likelihood of occurance) 4: Likely (70-89% likelihood of occurance) 5: Almost certain (90%+ likelihood of occurance)	1: Insignificant (No Risk, no recovery time or medical assistance) 2: Minor (Risk of Low to moderate injury / Race disruption) 3: Moderate (Risk of Moderate to serious injury / Race disruption) 4: Major (Serious injury, fractures, crash injuries / Race cancel) 5: Extreme (Death, hospital for 6+ weeks)	Green: Low Risk Amber: Moderate/ High Risk Red: High Risk (Risk will not be accepted until mitigating action have reduced the risk to tolerable)	Reduced/ Increased	
1	0.1	speed bump x3	This will result in possible fall of the athletes from the bike	Schwarzseestr	athletes	3	3	9 - AMBER	Provide information during the race briefing	TD						
2	0.3	Asphalt Mix instability & quality	Bumpy road that can result in flat tires & possible athlete withdraw.	Schwarzseestr	athletes	1	2	2 - GREEN	Bike course familiarisation	Athletes						
3	0.3	sharp corner with negative camber	90 degrees corner with additional off camber which can result athletes going out of the course/ collision.	Schwarzseestr/Schwarzsee	athletes	2	3	6 - AMBER	Provide protection	LOC (Bike Course Manager)						
4	0.5	elevation (hilly)	In wet conditions this part of the course can be slippery> athletes may fall.	Schwarzsee	athletes	1	1	1 - GREEN	Bike course familiarisation	Athletes						
5	0.7	sharp corner	90 degrees corner which can result athletes going out of the course/ collision.	Schwarzsee/Seebichlweg	athletes	2	2	4 - AMBER	Provide protection	LOC (Bike Course Manager)						
6	0.9	Asphalt Mix instability & quality	Bumpy road that can result in flat tires & possible athlete withdraw.	Seebichlweg	athletes	2	3	6 - AMBER	Road resurfacing	LOC (Bike Course Manager)						
7	1	narrow road	Narrow roads reduce the length of the course which can result athletes going out of the course/ collision.	Seebichlweg	athletes	2	3	6 - AMBER	Bike course familiarisation	Athletes						
8	1.25	road intersection	Unauthorized vehicle access to the course which can result in collision between vehicles and athletes.	Seebichlweg	athletes, residents	2	3	6 - AMBER	Create a traffic management plan, block the road access with fences & provide volunteers or/ and traffic police officer to that point.	LOC (Bike Course Manager)						
9	1.3	manhole	Bumpy road that can result in flat tires & possible athlete withdraw.	Seebichlweg	athletes	2	2	4 - AMBER	Check if covering should be provided.	TD						
10	1.4	sharp corner with negative camber	90 degrees corner with additional off camber which can result athletes going out of the course/ collision.	Seebichlweg/Schwarzseestr.	athletes	2	3	6 - AMBER	Provide protection	LOC (Bike Course Manager)						
11	1.7	sharp turn	270 degrees turn going downhill with additional negative camber	Schwarzseestr./Pass Thurn Str.	athletes	3	3	9 - AMBER	Provide protection	LOC (Bike Course Manager)						
12	2,1 - 2.5	Tunnel	Tunnel provides no light, may result in collision/athletes getting hurt	Kirchberger Str	athletes	3	3	9 - AMBER	Provide sufficient illumination	LOC (Bike Course Manager)						
13	2,1 - 2,6	Asphalt Mix instability & quality	Bumpy road that can result in flat tires & possible athlete withdraw.	Kirchberger Str	athletes	2	2	4 - AMBER	Road resurfacing	LOC (Bike Course Manager)						
14	2.55	sharp corner	90 degrees corner which can result athletes going out of the course/ collision.	Pass Thurn Str/Kirchberger Str	athletes	2	2	4 - AMBER	Provide protection	LOC (Bike Course Manager)						
15	2.9	sharp corner with negative camber	90 degrees corner with additional off camber which can result athletes going out of the course/ collision.	Pass Thurn Str / Josef Pirchl Str.	athletes	2	2	4 - AMBER	Provide protection	LOC (Bike Course Manager)						
16	3.2	Asphalt Mix instability & quality	Bumpy road that can result in flat tires & possible athlete withdraw.	Josef Pircher Str.	athletes	1	2	2 - GREEN	Road resurfacing	LOC (Bike Course Manager)						
17	3.2	manhole x2	Bumpy road that can result in flat tires & possible athlete withdraw.	Josef Pircher Str.	athletes	1	3	3 - GREEN	Check if covering should be provided.	TD						

4.6 Bike Course Aid Station

4.6.1 Bike Course Aid Station Layout

a) The bike course aid stations are used mainly in Middle and Long Distance events. They can be used in a Sprint or Standard Distance event in case of extreme hot conditions, following a TD's request.
b) The distance should be every 20km unless ruled by the TD.
c) Bike course aid stations should extend 40m.
d) Bike course aid stations should be located after sections of the course that the athletes physically reduce speed (following up hill sections or u- turns). They should be on straightaways that are easily accessible to the athletes.
e) Littering zones should be attached to bike course aid stations starting 50m before and extending up to 100m after. The littering zones should be clearly marked with signs and line on the ground.

Picture 60: Bike Course Aid Station Layout (ITU, 2019)



4.6.2 Bike Course Aid Station Personnel

a) Staff and volunteers:

- Aid stations should have a minimum of 20 trained volunteers. The volunteers should use plastic gloves at all times and should wear vests which clearly state the food or liquid they will offer to the athletes. This information should be listed in the event athletes' guide;
- Assign volunteers to keep the station clear of litter; and
- Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

Picture 61: Volunteers' identification vests (ITU, 2019)

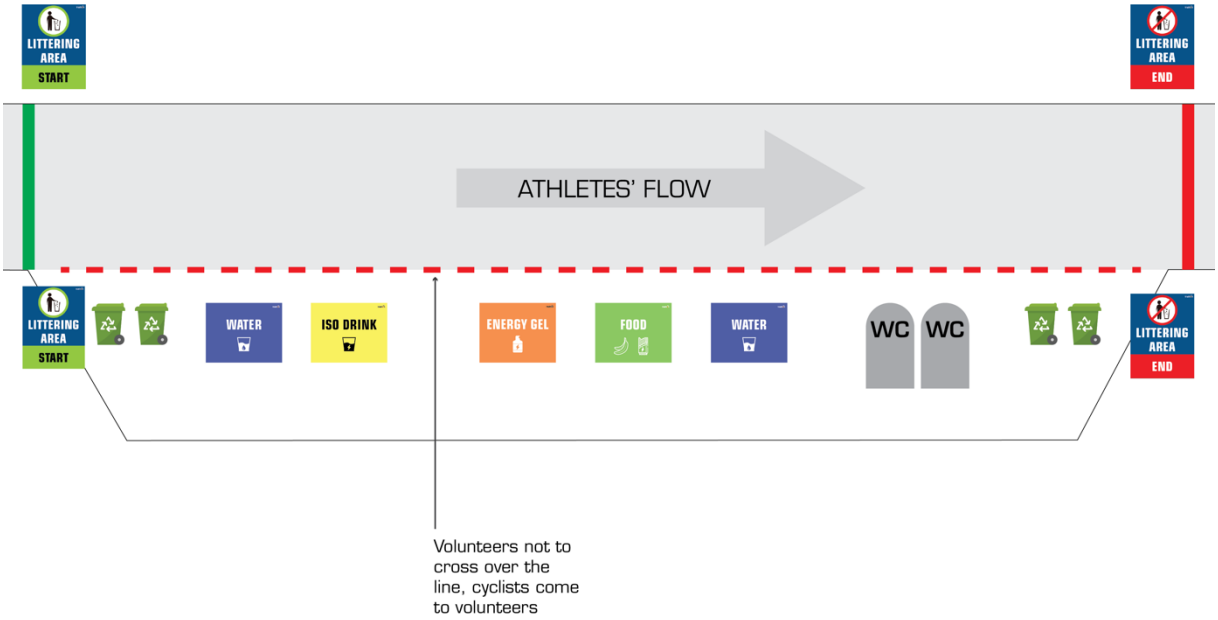
b) Technical Officials:
- A technical official may be placed at each bike course aid station;

4.6.3 Bike Course Aid Station Equipment

a) Furniture, fixtures and equipment (FF&E)- The following should be provided off the FOP:
- 1 portable toilet;
- Bike racks
- Tables according to the number of participants; and
- 4 pop up tents (3m x 3m);
- Plastic gloves

b) Liquids/Food:
- The aid stations should serve all the liquids in a bottle that fit in a standard size bike bottle cage (preferable a bike bottle);
- In case of doping control tests at a specific race all bottles should be sealed. If not possible, the filling of the bottles should take place according to the aid station mixing protocol described below under the supervision of a technical official and this information should be shared with the athletes;
- In Sprint and Standard Distance competitions, only water can be offered. The LOC should provide 1 bottle of 330 ml water per athlete per aid station per lap; and
- In Middle and Long Distance competitions, the bike course aid stations can offer water, isotonic drinks and food (bananas, energy bars, energy gels). The provided fluids and food should be grouped and clearly marked with signage. Water should be provided first, leading to the isotonic drinks and following by the food. The brand and type of products must be announced to the athletes no later than 4 months before the competition to allow them to train and test these supplies.

Picture 62: Bike Course Aid Station (ITU, 2019)



- All beverages should be served at ambient temperature; and
- Fluids should be held at the bottom of the bottle, so that athletes can grab the whole bottle.

c) Signage

- The signs should be placed 2m above the ground; and
- The following signage has to be provided at every bike aid station:
  - 1x 200m to Bike Aid Station;
  - 1x Bike Aid Station;
  - 1x Littering Area Start
  - 1X Littering Area End
  - 1x water bottles
  - 1x isotonic drink
  - 1x food (bananas/ energy bars)
  - 1x energy gels
- Specifications can be found on Appendix 3.

Picture 63: Bike Course Aid Station Signage (ITU, 2019)

4.6.4 Bike Course Aid Station Procedures and Operational Plans

a) In Middle, Long Distance events, Cross Triathlon and Duathlon events one of these aid stations will be the coaches' station (the one closest to the venue), where the coaches can provide their athletes with their own food and liquids; and toilets should be provided at all the bike course aid stations.
b) Aid station mixing protocol: In AG and/or Middle/Long Distance event, where sealed water is not provided, the following process should be followed:
   - All aid station packing and mixing will be supervised by an ITU Technical Official
   - Sealed water will be inputted into cleaned and sanitised jugs for mixing and distribution.
   - For water only - after jugs are filled, the lid will be replaced, sealed and signed off by the TO.
   - For isotonic drink containers - sealed product will be placed into the clean and sanitised jugs. Sealed water will be added to the coolers and mixed using an electric drill with a food safe, sanitised agitator. Once mixing is complete, the lid will be replaced, sealed and signed off by the TO.
   - In instances of warm weather, ice from sealed bags will also be added to the jugs prior to the sealing of the container.
   - Aid stations will fill bike bottles at race start using only sealed containers.
c) If additional water or isotonic drink are required at an aid station, the ITU TO on site closest to the logistic compound will supervise the filling and mixing and will seal the container prior to transportation out to the aid station.
d) In Middle, Long Distance events, Cross Triathlon, winter triathlon and Aquabike one of these aid stations will be the coaches' station (the one closest to the venue), where the coaches can provide their athletes with their own food and liquids. The coaches' station section should be after the bike aid station section.

4.7 Bike Course Penalty Box

4.7.1 Bike Course Penalty Box Layout

LINK
MAIL ITU

a) The bike course penalty boxes are used in draft illegal events;
b) The number of penalty boxes is determined by the TD according to the ITU Competition Rules;
c) The bike course penalty boxes have to be in areas where it is safe for the athletes to pull out. These locations will be approved by the TD;
d) Penalty box areas must be secured with low fences and separated from the spectator areas; and
e) A littering zone should be provided according to the specifications above at each of the bike penalty boxes. The littering zones should be clearly marked with signs and a line on the ground.

4.7.2 Bike Course Penalty Box Personnel

a) Staff and volunteers:
   - The LOC should provide a volunteer to work with the Technical officials at each penalty box
b) Technical Officials:
   - The Penalty Box is managed and controlled by Technical Officials.

4.7.3 Bike Course Penalty Box Equipment

a) Furniture fixtures and equipment (FF&E)- The following should be provided off the FOP:
   - 1 table, and 2 chairs;

- 1 pop up tent (3m x 3m);
- portable toilets; and
- Bike racks.

b) Signage:
- The signs should be placed 2m high above the ground;
- The specifications of the signs are the same as in the section “Bike course aid station”; and
- The following signage has to be provided at every bike course penalty box:
  - 1x 200m to Penalty Box;
  - 1x Penalty Box
  - 1x Littering Area Start
  - 1X Littering Area End
- Specifications can be found on Appendix 3.

Picture 64: Bike Course Penalty Box Signage (ITU, 2019)

4.8 Wheel Station

4.8.1 Wheel Station Layout

4.8.1.1 General

a) The wheel stations are using in the Elite/ U23/ Junior/Youth and Paratriathlon Standard distanceTriathlon/ Duathlon events and shorter distances.
b) A minimum of two wheel stations will be provided:
- Wheel station 1 (team wheel station): Close to the exit of the transition area on the bike course. The teams will provide their own wheels to this wheel station; and
- Wheel station 2 (neutral wheel station): At approximately halfway of the bike lap on the bike course. The LOC will provide the wheels to this wheel station and they will be available to all the athletes.

c) The exact placement of the wheel stations will be determined by the TD.
d) Wheel station areas must be secured with low fences and separated from the spectators.
e) A littering zone should be provided like the bike aid station at each of the wheel stations. The littering zones should be clearly marked with signs and a line on the ground.

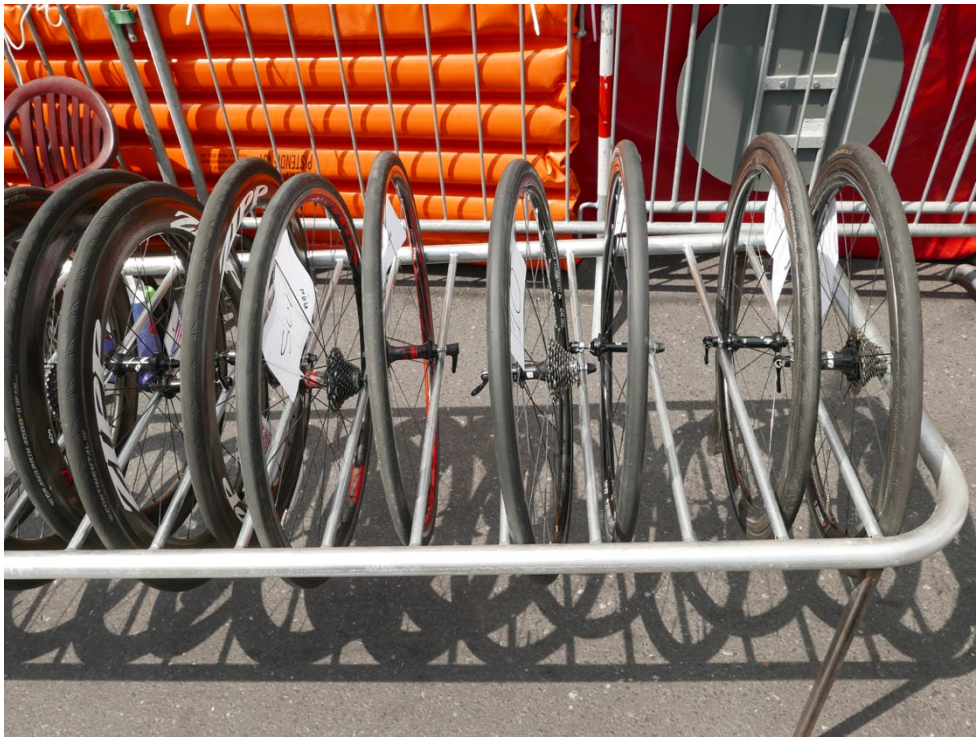
4.8.1.2 Mixed Relay and Super Sprint Triathlon Wheel Station – Specific Information

In the Mixed Relay and Super Sprint distance events, these wheels stations can be combined.

4.8.1.3 Olympic Games Wheel Station– Specific Information

In the Olympic Games, 6 wheel stations must be provided with all wheels supplied by the Organising Committee.

Picture 65: Wheel StationLlayout (ITU, 2018)



4.8.1.4 Cross Triathlon/ Duathlon and Winter Triathlon Wheel Station – Specific Information

In Cross Triathlon/ Duathlon and Winter Triathlon, wheel stations and neutral wheels are not provided. Instead a repair zone should be available where the athletes can have access to bike tools and pumps to repair their bikes. This area should be located half-way on the bike course.

Signage:

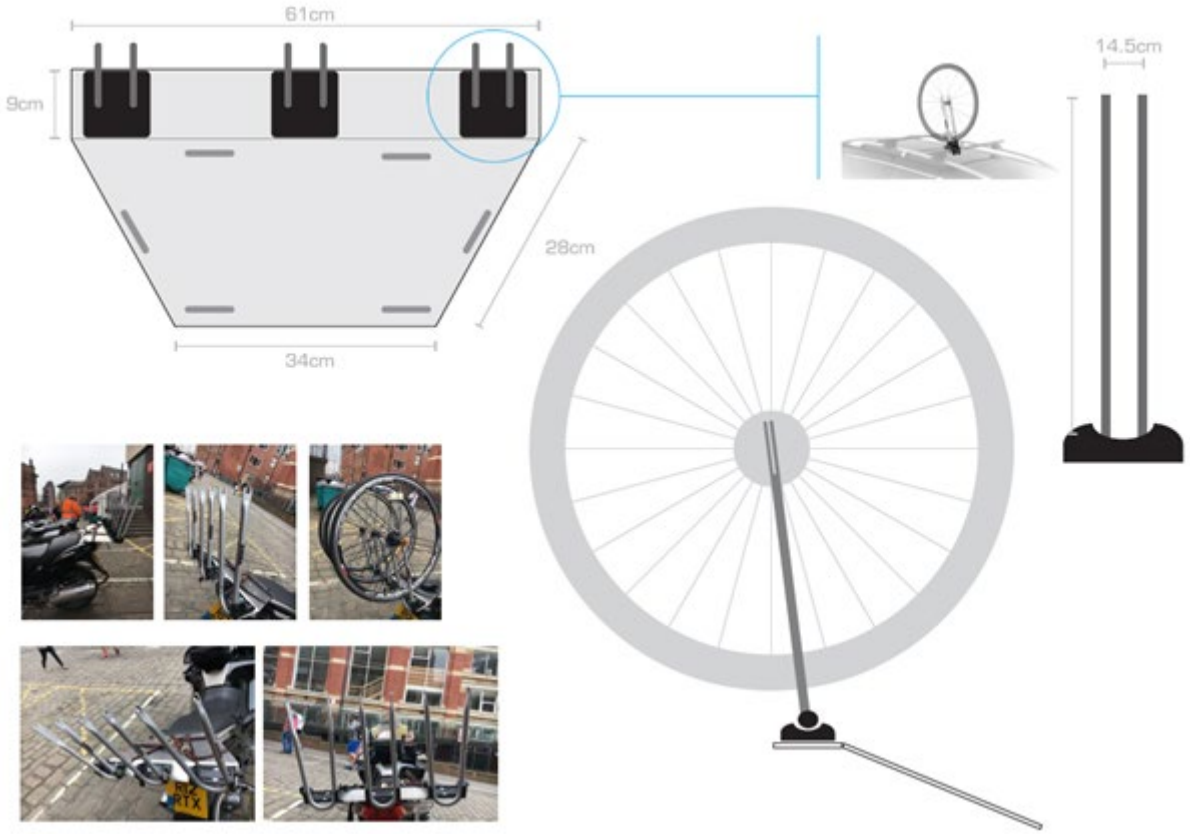
- The signs should be placed 2m high above the ground;
- The specifications of the signs are the same as in the section “Bike course aid station”; and
- The following signage has to be provided at every bike course penalty box:
  - 1x 200m to Repair Zone;
  - 1x Repairing Zone
  - 1x Littering Area Start
  - 1X Littering Area End
- Specifications can be found on Appendix 3.

Picture 66: Repair Zone Signage (ITU, 2019)

4.8.1.5 Middle and Long Distance Wheel Station– Specific Information

- A neutral bike mechanic support is allowed for the Middle and Long Distance events with the condition that they are using motorbike and not cars/vans.
- A minimum of three mechanic support motorbikes are required
- The operational plan can either be specific about categories having dedicated motorbike supporting the Elite athletes and two supporting the AG athletes or section based support vehicle moving on a dedicated portion of the course. The final decision lies with the Technical Delegate.

Diagram 26: Motorbike wheel rack (ITU, 2019)



4.8.2 Wheel Station Personnel

a) Staff and volunteers:
   - A bike mechanic should be present at each of the wheel stations. (if possible)

b) Technical Officials:
   - The wheel stations are managed and controlled by technical officials.

4.8.3 Wheel Station Equipment

a) Furniture fixtures and equipment (FF&E)- The following should be provided at each wheel station off the FOP.
   - 1 table and 2 chairs;
   - 1 pop up tent (3m x 3m); and
   - Racks to hold the wheels.

b) Signage:
   - The signs should be placed 2m above the ground;
   - The specifications of the signs are the same as in the section “Bike course aid station” and can be found on Appendix 3; and
   - The following signage has to be provided at every wheel station:
     - 1x 200m to Wheel Station;
     - 1x Wheel Station
     - 1x Littering Area Start
     - 1X Littering Area End

Picture 67: Wheel Station Signage (ITU, 2019)

c) Wheels:
- The LOC should provide the following wheels to the neutral wheel station:
  - 4x 700c front wheel
  - 4x 700c 11 cassette Shimano rear wheels
  - 2x 700c 10 cassette Shimano rear wheels
  - 2x 700c 10 cassette Campagnolo rear wheels
- In cases of neutral bike mechanic support, the LOC should provide 2 front and 2 rear wheels per motorbike.

TIPS

ETRTO: ETRTO number is a universal standard and is based off the technical measurement of the tyres (**E**uropean **T**ire and **R**im **T**echnical **O**rganization – or ISO). The ETRTO size specification 37-622 indicates the width of 37 mm and the tyre inner diameter of 622 mm. This dimension is clear and allows for precise classification of the rim size. For more information, check here.

TIPS

The LOC and the TD should review carefully the wheel specifications and the cassette range to make sure that proper wheels are provided at the wheel station.

4.8.4 Wheel Station Procedures and Operational Plans

a) Any athlete wheels that will be deposited to the wheel station 1, should go through the athletes' lounge and be checked at the same time as the athlete's bike. After the wheels are checked, a tag will be provided that is taken to the wheel drop-off location (if applicable);
b) Provisions must be made to transport the wheels from the transition area (where the athletes will leave the wheels) to wheel station 1 at least thirty minutes prior to the competition;
c) Provisions must be made to transport the wheels from wheel station 1 to the transition area (where the athletes will pick up the wheels) immediately after the competition;
d) Wheel stations are not required for Age Group athletes in Standard Distance Triathlon/Duathlon events and shorter.

4.9 Lap Counting

4.9.1 Lap Counting Layout

a) In draft legal events of Elite/U23/Junior/Youth, the lap counting will be in a position either before or after the transition area where it is visible for the athletes, announcers and spectators;
b) There is no lap counting for draft illegal competitions.

4.9.2 Lap Counting Personnel

Technical Officials:

- A lap auditor official will be assigned to monitor and control the bike laps.

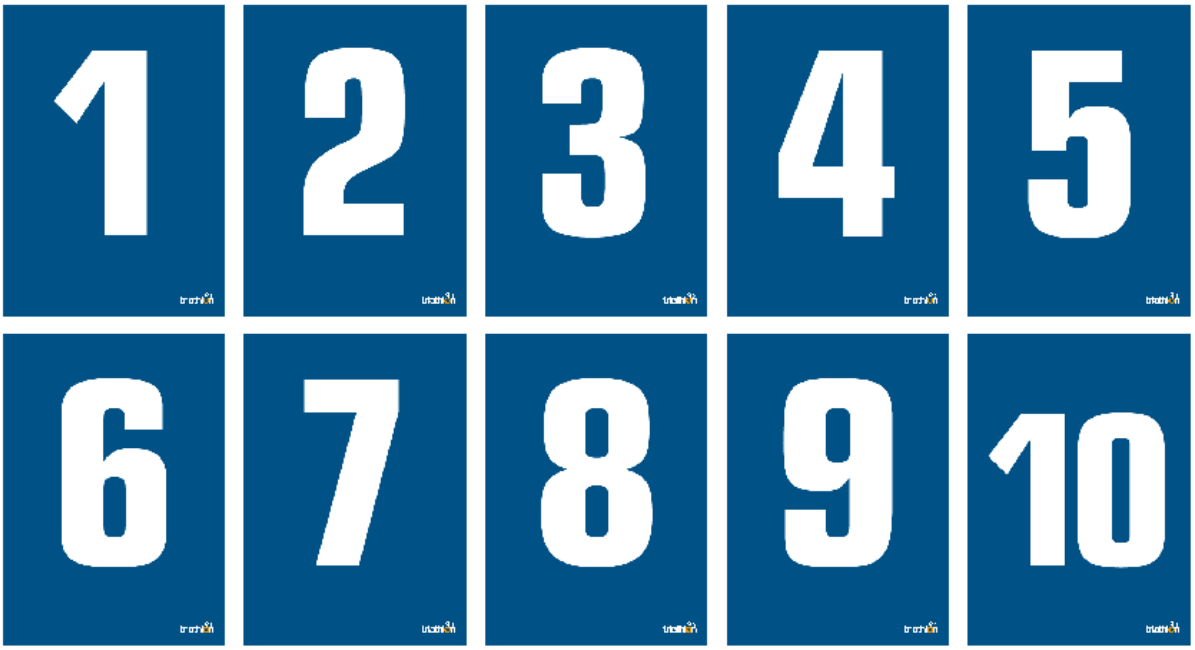
4.9.3 Lap Counting Equipment

a) Lap Boards:
   - The lap counting board should be 1m high x 0.75m wide.
   - This board will indicate the number of laps remaining for the competition leader and subsequent athletes.
   - Electronic lap verification is needed. This is mandatory at all Age Group events.
b) Bell

4.9.4 Lap Counting Procedures and Operational Plans

In draft legal events of Elite/U23/Junior/Youth, every athlete will receive a bell notification with one lap to go on the bike and run courses.

Picture 68: Lap Counting Boards Signage (ITU, 2019)



4.10 Special Needs Stations

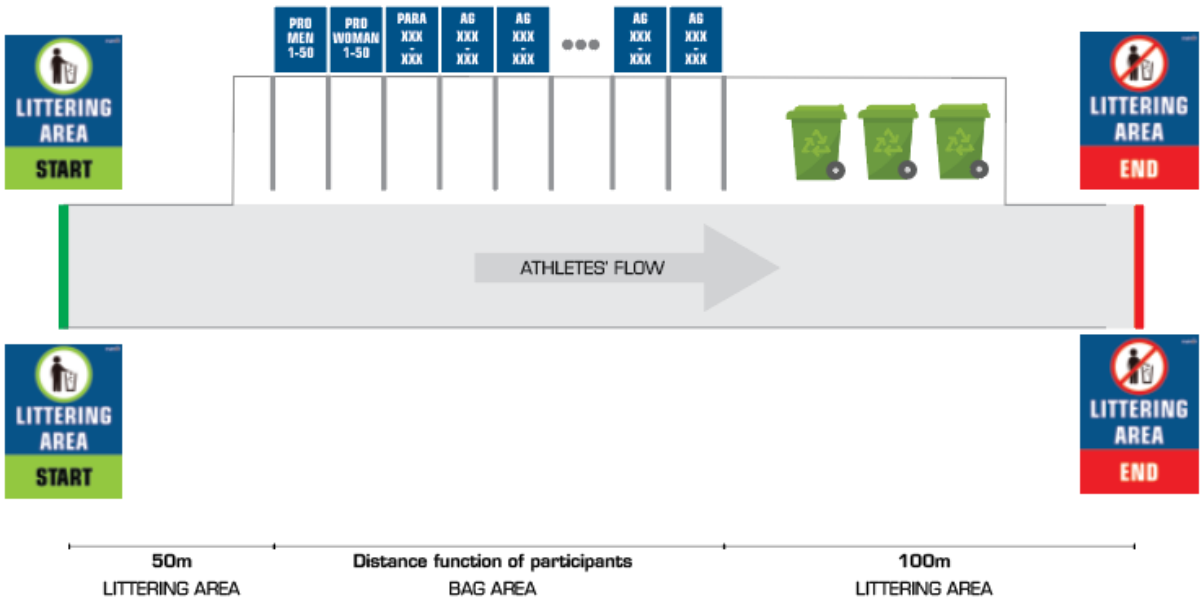
4.10.1 Special Needs Station Layout

a) Special needs station can be found in Middle and Long Distance Triathlon events, Winter Triathlon, Cross Triathlon/Duathlon and Aquabike. These areas can be found

on both bike and run courses. The athletes will be given the possibility to deposit their own nutrition/equipment in dedicated bags which can be collected from these points. The bags are given out by LOC volunteers. If an athlete wishes to use this service, they should contact the LOC and ask for a special needs bike or run bag.

b) Depending on the location of these stations the athletes can deposit the bags on their own or the LOC will have to transport the bags to the locations.
c) The special needs stations should be placed in locations which don't interfere with the flow of the athletes.
d) The special needs stations should be located after sections of the course where the athletes physically reduce their speed (following up hill sections or u- turns). They should be on straightaways that are easily accessible to the athletes.
e) A littering zone should be attached to the special needs stations starting 50m before and extending up to 150m after. The littering zones should be clearly marked with signs and lines on the ground.
f) and
g) The special need bags need to be provided by the LOC and should have the following colours:
   - Bike special need bags: white
   - Run special need bags: orange

Picture 69: The Special Needs Stations Layout (ITU, 2018)



4.10.2 Special Need Station Personnel

a) Staff and volunteers:
   - Special need station should have a minimum of 10 trained volunteers
   - Assign volunteers to keep the station clear of litter (bottles);
   - Assign two spotters identifying the athletes' bib number; and
   - Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.

4.10.3 Special Need Station Equipment

a) Furniture fixtures and equipment (FF&E)- The following should be provided:

- 3 portable toilets;
- Bike racks
- Racking system according to the number of participants; and
- 1 pop up tent (3m x 3m).

b) Signage
- The signs should be placed 2m above the ground; and
- The following signage has to be provided at every bike aid station:
  - 1x 200m to Special Needs Station;
  - 1x Special Needs Station;
  - 1x Littering Area Start
  - 1X Littering Area End
- Specifications can be found on Appendix 3.

Picture 70: Bike Course Aid Station Signage (ITU, 2019)

4.11 Run Course

4.11.1 Run Course Layout

4.11.1.1 General

LINK

a) Number of laps (for distances check the ITU Competition Rules):
- Elite/U23 Standard distance: 3-4 laps;
- Age Group Standard distance: 1-3 laps;
- Elite/U23/Junior/Youth/ Paratriathlon Sprint distance: 1-2 laps;
- AG Sprint distance: 1-2 laps;
- Middle Distance/ Long Distance: 1-4 laps;
- Mixed Relay and Super Sprint: 1-2 lap;
- Cross Triathlon and Duathlon: 1-2 lap for Sprint and 1-3 laps for Standard;
- Winter Triathlon: 1 lap for Sprint and 1-2 laps for Standard.

b) The road surface must be hard and smooth (except in Cross Triathlon/ Duathlon and Winter Triathlon events). Steep curb drops or other such hazards should be altered for safety purposes. Steps up or down are potentially dangerous for athletes;

c) Course width: minimum width is 3m; (except in Cross Triathlon/ Duathlon and Winter Triathlon events).
d) Both Elite and Age Group courses must be secure and totally closed from traffic;
e) Turns should be wide and swept; (except in Cross Triathlon/ Duathlon and Winter Triathlon events)
f) There will be no crossovers;
g) The course must be sufficiently marked so that there can be no doubt as to the correct route;
h) Pedestrian crossings should not be within 100m of transition area, turns and finish area; and
i) The run U turns should not include any objects that will allow the athletes to grab it and support their turn.

4.11.1.2 Paratriathlon Run Course – Specific Information

a) General
- The Paratriathlon run course should be wide enough to accommodate wheelchairs passing each other;
- No curves, steps, grass, sand and narrow spots are allowed. In cases of a soft surface, the use of plywood flooring should be considered;
- Steps must be avoided, along with sharp corners;
- Trail type run courses are not suitable;
- Run courses on cobblestone or going over water evacuation gutters cannot be considered;
- No run shall have a maximum gradient of over 5% at the steepest section; and
- Identify the issues by providing proper signage, predetermining the VI free leading zones.

b) Paratriathlon: VI Free leading zone
- PTVI athletes can be led by their own guide in specific areas on the run course, determined by the TD. These areas are:
  - Places where there is a concern for the athletes' safety;
  - 10m before and after an aid station, acute turn, penalty box, transition area, swim exit and pre-transition area.
- Each of the VI free leading zones should be marked with a sign and a line on the ground.
- Signage:
  - The signs should be placed 2m high above the ground;
  - The specifications of the signs are the same as in the section "Bike course aid station" and can be found on Appendix 3;
  - The following signage has to be provided:
  - 1 per area x VI Free leading zone/start;
  - 1 per area x VI Free leading zone/finish

Picture 71: VI Free Leading Zone Signage (ITU, 2019)

4.11.1.3 Cross Triathlon/ Duathlon Run Course – Specific Information

a) The run segment must be planned with a cross country run concept.
b) The course for a cross-country race should include, where possible, forest roads and tracks, fields, earth or gravel paths and include significant amounts of ascending and descending. Paved tarred/asphalt roads should not exceed 15% of the total course.

4.11.1.4 Winter Triathlon Run Course – Specific Information

a) The running segment may be held on snow.
b) The run segment must be planned with a cross country run concept.
c) Quads are preferable for the officials.

4.11.2 Run Course Personnel

a) Staff and volunteers
- Trained volunteers should be assigned to the run course;
- The minimum number of volunteers is determined by the course layout; and
- Spotters should be considered for identifying the first and the last athlete.

b) Police
- Police or security personnel must be present at every access road, intersection and turn on the course; and
- If a police motorbike is on the course it must be a minimum of 200m in front of the leader and only on the first lap of the run.

c) Technical officials – Elite run specific
- Two officials on bicycles will patrol the run course

d) Technical officials – Age Group/Paratriathlon run specific
- The number of officials patrolling the Age Group run course will be determined by the TD.

e) Media
- The number of media motorcycles on the course will be determined by the TD and monitored by the vehicle control official.

f) Medical
- Medical personnel should be equipped with radios or cell phones;
- Provisions should be made to get injured athletes back to the transition area without interfering with the field of play; and
- Refer to the medical plan section for the full event medical details.

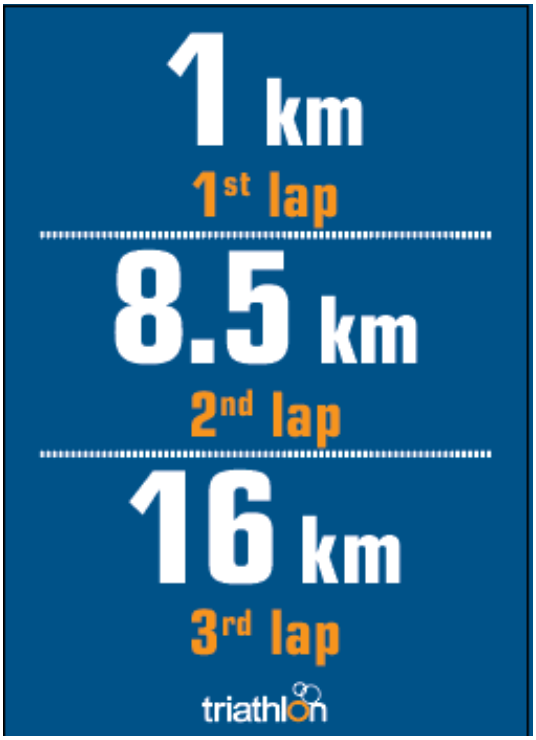
g) Spectators and team officials
- Spectators should be prevented from entering the course and/or interfering with the competition; and
- There has to be a dedicated coaches' area along the run course. The number of the coaches' areas will be determined by the TD.

4.11.3 Run Course Equipment

Please refer to the run course equipment section for common course set up equipment (hard fences, wooden ramps, road re-surfacing, etc.)

a) Signage
There will be distance markers every 1km. In case of multi-lap course, the distance of the related lap is marked on the km marker of the first lap;

Picture 72: Distance markers (ITU, 2019)



b) Toilets
Toilets should be provided every 5km in Middle/Long Distance events.
For the rest of the events, toilets should be available at all aid stations and run penalty boxes. For the elite standard and shorter distance events, toilets are optional.

c) Cones
- Cones should be provided in the areas that need to separate the run flow. If the specific course is used during the bike leg, please refer to 4.5.3.j.
- The cones should be placed:
  - Starting 5m before, during and after the corner, the cones should be placed maximum every 0.5m; and

- In the rest of the course, the cones should be placed at a maximum distance of 6m.

4.11.4 Run Course Procedures and Operational Plans

4.11.4.1 General

Course measurement: certified course measurement is required and must be submitted to TD. The course being measured by an IAAF certified measurer is ideal.

a) Refer to the Appendix Section for the run course measurement manual.
b) In AG races, a timing point should be placed at all the farthest points of the course. The ITU TD should approve these locations. In the rest of the events, the ITU TD may request a similar timing point due to local circumstances.

4.12 Run Course Aid Station

4.12.1 Run Course Aid Station Layout

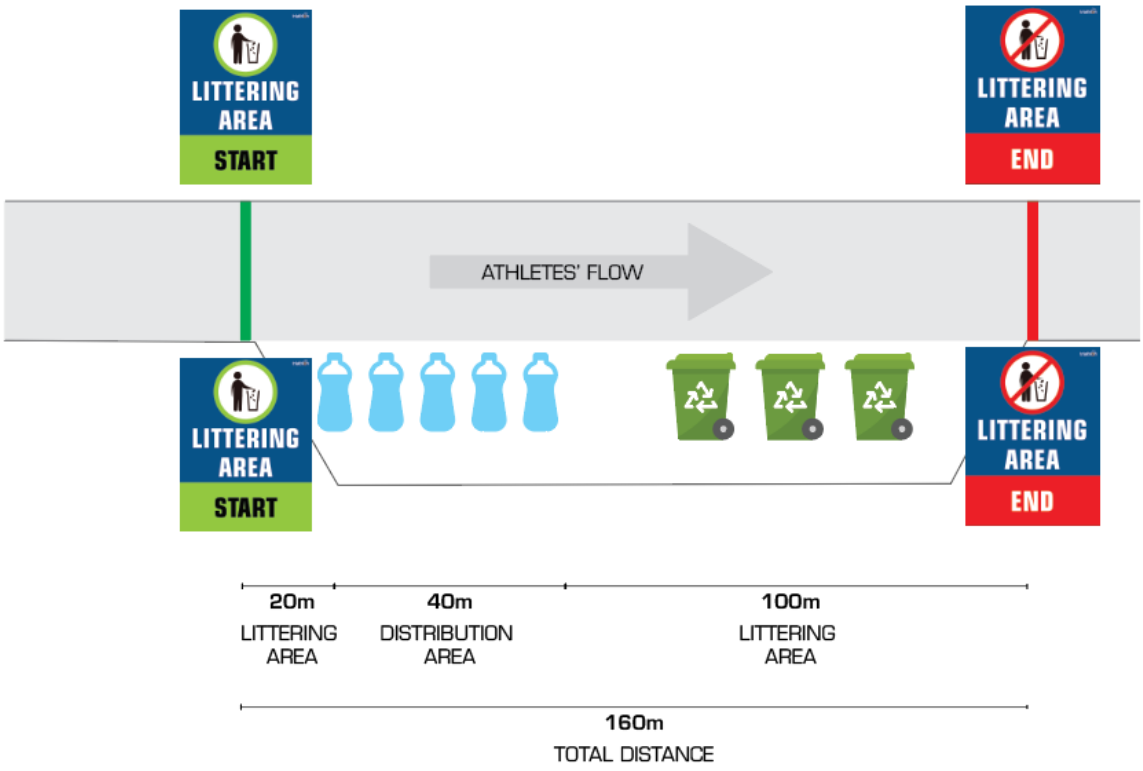
4.12.1.1 General

a) The distance between the run course aid stations should be a maximum of 1.25km unless otherwise ruled by the TD.
b) Run course aid stations should extend 40m.
c) They should be on a straightaway easily accessible to the athletes.
d) There should be a run course aid station between 200m and 400m after the exit of the transition area.
e) A littering zone should be attached to the run course aid station starting 20m before and extending up to 100m after. The littering zones should be clearly marked with signs and a line on the ground.

4.12.1.2 Paratriathlon Course Aid stations – Specific Information

Prepare the aid stations to serve VI and their guides as well as wheelchair athletes.

Picture 73: Run Course Aid Station Layout (ITU, 2019)



4.12.2 Run Course Aid Station Personnel

a) Staff and volunteers:

- General
  - Aid stations should have a minimum of 10 trained volunteers. The volunteers should use plastic gloves at all times;
  - Assign volunteers to keep the station clear of litter (bottles); and
  - Job descriptions of the different tasks can be accessed through the assigned ITU TD or the ITU Sport Department.
- Middle and Long Distance aid station – specific information
  - In Middle/Long Distance events, a minimum of 20 volunteers should be provided and should wear vests which clearly state the food or liquid they will offer to the athletes. This information should be listed in the event athletes' guide

Picture 74: Volunteers' identification vests (ITU, 2019)

b) Technical Officials:
- A technical official will be placed at each aid station.

4.12.3 Run Course Aid Station Equipment

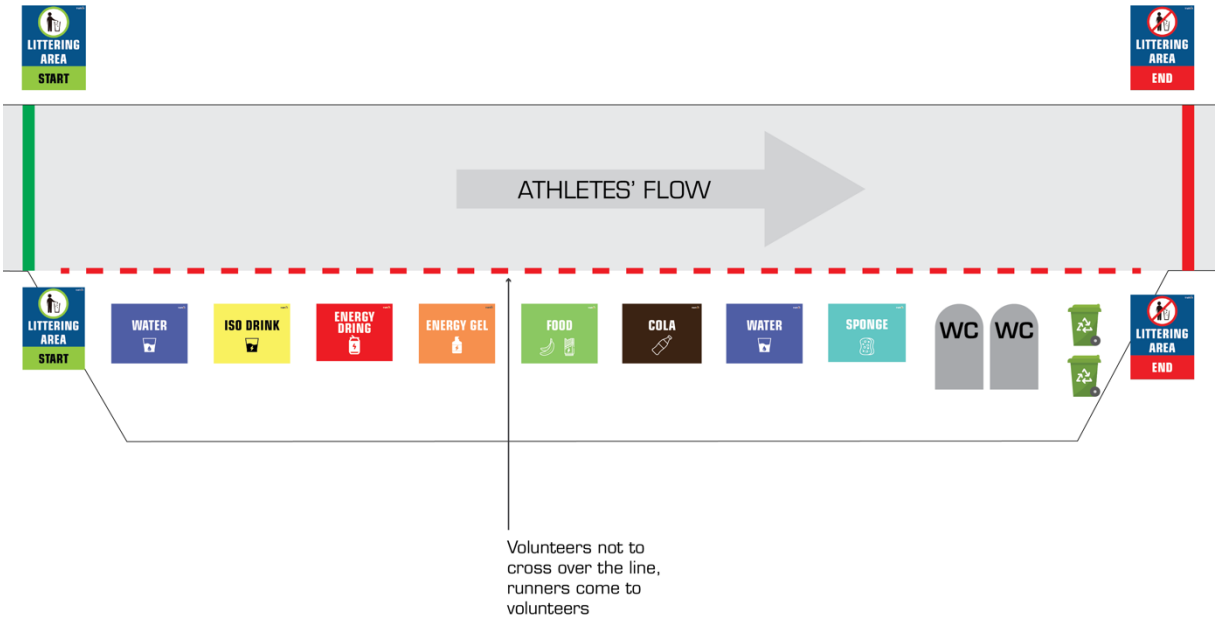
a) Furniture fixtures and equipment (FF&E)- The following should be provided off the FOP:
- 1 portable toilet;
- Tables according to the number of participants; and
- 2 pop up tent (3m x 3m).
- Plastic gloves

b) Liquids/Food:
- General
  - In case of doping control tests at a specific race all bottles should be sealed or follow the aid station mixing protocol highlighted below;
  - All beverages should be served at ambient temperature;
  - Bottles should be held by the bottom so that athletes can grab the whole bottle. The bottle lid should stay at the water station and only the bottle should be given to the athletes. The lids should be on the bottle until the moment they are handed over to the athletes;
  - If cups are provided, they are to be held between the thumb and forefinger (forefinger inside the cup) and tilted away from the athlete's direction of travel when serving so that the athletes can grab the whole cup and avoid spilling the fluid;
  - Volunteers should make every attempt to move with the athlete as much as possible when serving to avoid jarring contact, which results in spilled fluid; and
  - The LOC should be in a condition to provide cold water sponges or bags with ice if it is requested by the TD.

- Sprint and Standard Distance aid station – specific information
  - In Sprint and Standard Distance competitions for Elite/U23/Junior/Youth, only water can be offered. The LOC should provide 2 bottles of 330 ml water per athlete (plus Guide if applicable) per aid station per lap. For AG events, the LOC may consider offering isotonic drinks as well.

- Middle and Standard Distance aid station – specific information
  - In Middle/Long Distance competitions the run course aid stations can offer water, isotonic drinks, Coke and food (bananas, energy bars, energy gels, miscellaneous (e.g. salt tablets, salty food). The provided fluids and food should be grouped and clearly marked with signage. Water should be provided first, leading to the isotonic drinks and following by the food;
  - The brand and type of products must be announced to the athletes no later than 4 months before the competition to allow them to train and test these supplies.

Picture 75: Run Course Aid Station (ITU, 2019)



Picture 76: Proper Holding of Bottle at the Aid Stations (ITU,2019)

c) Signage

- The signs should be placed 2m above the ground.
- The specifications of the signs are the same as in the section “Bike course aid station” and can be found on Appendix 3; and
- The following signage has to be provided at every aid station:
  - 1x 200m to Aid Station;
  - 1x Aid Station;
  - 1x Littering Area Start
  - 1X Littering Area End
  - 1x water bottles
  - 1x isotonic drink
  - 1x food (bananas/ energy bars)
  - 1x energy gels

Picture 77: Run Course Aid Station Signage (ITU, 2019)

4.12.4 Run Course Aid Station Procedures and Operation Plans

4.12.4.1 General

a) Toilets should be provided at all aid stations. For the elite/ u23/ junior standard and shorter distance events, toilets are optional.
b) All table legs need to be zip-tied.
c) Have volunteers ready to serve left-handed athletes.

4.12.4.2 Paratriathlon Run Course -Specific Information

a) In case of visually impaired athletes the volunteers should be ready to give the water bottles either to the athletes or their guides. In the case of the athlete, the volunteers must make sure they deposit the water bottle in the athlete's palm.
b) In case of athletes racing with wheelchair, the bottle should be handed sealed

4.12.4.3 Middle/ LD Distance Run Course– Specific Information

a) In the Middle/ Long Distance events, the Cross Triathlon and Duathlon events one of these aid stations will be the coaches' station (the one closest to the venue), where the coaches can provide their athletes with their own food and liquids.

4.12.4.4 Aid Station Mixing Protocol

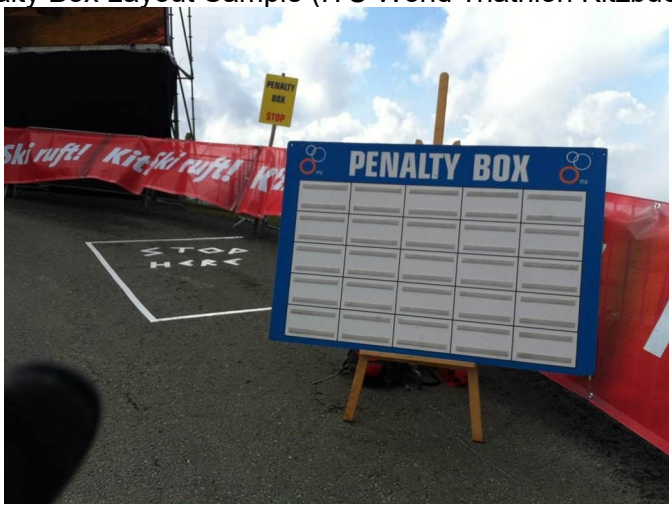
a) In AG and/or Middle/Long Distance events, where sealed water is not provided, the following process should be followed:
   - All aid station packing and mixing will be supervised by an ITU Technical Official
   - Sealed water will be inputted into cleaned and sanitised jugs for mixing and distribution.
   - For water only - after jugs are filled, the lid will be replaced, sealed and signed off by the TO.
   - For isotonic drink containers - sealed product will be placed into the clean and sanitised jugs. Sealed water will be added to the coolers and mixed using an electric drill with a food safe, sanitised agitator. Once mixing is complete, the lid will be replaced, sealed and signed off by the TO.
   - In instances of warm weather, ice from sealed bags will also be added to the jugs prior to the sealing of the container.
   - Aid stations will fill cups at race start using only sealed containers.
   - If additional water or isotonic drink are required at an aid station, the ITU TO on site closest to the logistic compound will supervise the filling and mixing and will seal the container prior to transportation out to the aid station.

4.13 Run Course Penalty Box

4.13.1 Run Course Penalty Box Layout

a) 1 penalty box will be located at the end of the run lap to allow direct communication between the Technical Officials in the transition area and the Technical Officials in the penalty box.
b) The penalty box area must be secured with low fences and separated from the spectators' areas;
c) Behind the board, an area (3m x 3m) should be clearly marked for the athletes to serve their penalties.

Picture 78: Run Penalty Box Layout Sample (ITU World Triathlon Kitzbuehel, 2013):



4.13.2 Run Course Penalty Box Personnel

a) Staff and volunteers:
- The LOC should provide a volunteer to work with the Technical officials at the penalty box.

b) Technical Officials:
- The Penalty Box is managed and controlled by Technical Officials.

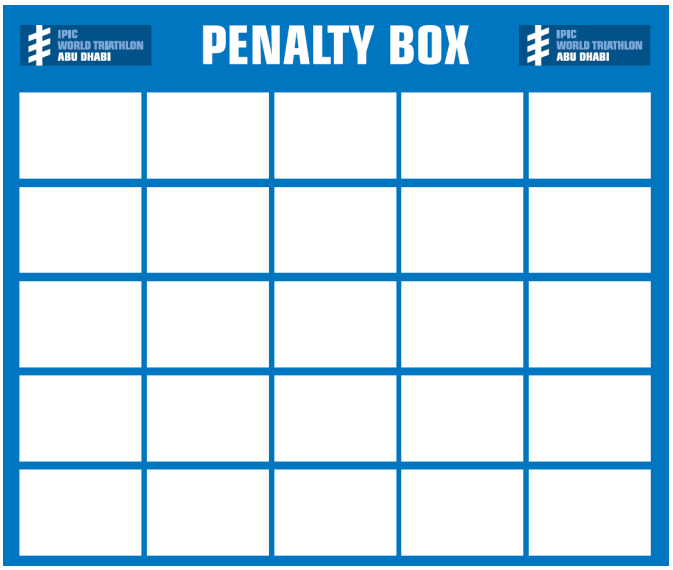
4.13.3 Run Course Penalty Box Equipment

a) Furniture fixtures and equipment (FF&E)- The following should be provided off the FOP:
- 1 table, and 2 chairs;
- 1 pop up tent (3m x 3m).

b) Run Penalty Box Numbers and Board
- The board should be 1m x 1.2m from a PVC material sitting on the stand with the capacity of 25 numbers on the panel. The board needs to work with magnet as well as with markers; and
- The penalty board numbers and letters (indicating the nature of infringement) should have the following specifications:
  - In A5 size landscape (14.8 x 21cm);
  - Font Arial Black (digits should be minimum 80mm high and 15mm thick);
  - Need to provide all the range of race numbers as well as four sets of the following texts: “x2”, “x3”, “x4”;
  - Need to provide five sets of the following letters, same size as the race numbers for the Penalty Box:
    D = Dismount Line Violation
    S = Swim Conduct
    M = Mount Line violation
    E = Equipment Outside Box
    L = Littering
    V = Other Violations
  - Printed on waterproof material that are easy to be placed on the penalty box board (magnetic signs on metal board or hard boards with velcro)
  - Specifications for magnetic plates are as follows:
    - Size: A5 (W210×H148×T0.3mm)
    - Adsorption power of magnet: 7.80g/㎠

- Ink: Dye
- Printed surface: Matte

Picture 79: Run Course Penalty Box Equipment (ITU World Triathlon Abu Dhabi, 2015)



c) Signage:
- The signs should be placed 2m above the ground;
- The specifications of the signs are the same as in the section “Bike course aid station” and can be found on Appendix 3; and
- The following signage has to be provided:
  - 1x 200m to Penalty Box;
  - 1x Penalty Box

Picture 80: Run Course Penalty Box Signage (ITU, 2019)

4.14 Finish Area

4.14.1 Finish Area Layout

4.14.1.1 General

a) Finish chute length: No less than 100m in length and 5m in width.

b) Photographers' stand specifications: The media stand should be placed 15m behind the finish line. A 5-tiered stand that is 3m to 4m in width must be placed directly behind the 15m clean finish area.
c) The distance to the recovery area cannot be more than 50m. If the recovery area is far away then a first recovery area (3mx3m) should be provided behind the photographers' stand.
d) Mixed zone specifications: A secure mixed zone should be planned adjacent to the finish area (behind the photographers' stand) with sufficient space for the media to interview athletes. Dedicated areas for broadcasters and print media should be provided. According to the size of the mixed zone it can be either straight or a "S" shape to minimise the required space.
e) Grandstand: Seating for spectators should be planned within the stadium area. Please refer to the different event requirements document for the minimum size.
f) Big screens and scoreboard platforms with electrical hook-ups should be erected in view of the grandstands.
g) A complete set of country flags should be planned for within the stadium area. This is a standard requirement for Continental and World Championships, please refer to the "Venue operations" section for the flags' protocol setup.
h) Specifications for the Sport presentation tent can be found in the "Venue operations" section.
i) Medical/ Recovery: The medical and recovery areas should be located next to each other and be easily accessible from the finish area, with adequate privacy and security provisions. The athletes' flow from the finish line to the recovery area should be uninterrupted. The areas should also be closed with 2m high fences and be away from the media area. The medical tent should be placed between 50m and 150m from the finish line, with a separated isolated evacuation route connected to the finish area. A secondary first recovery tent maybe required in the cases where the Mixed zone is quite long (e.g. Olympic Games).

4.14.1.2 Paratriathlon Finish Area– Specific Information

a) Additional to the above the finish layout for Paratriathlon needs to be modified for the safety of the wheelchair athletes. The path exiting the finish area should follow the finish orientation and be a minimum 3m wide. The photographer's stand should not extend further than the middle point of the finish gantry.
b) The media stand should be placed 20m behind the finish line.

Diagram 27: Paratriathlon Finish Area Layout Sample (ITU, 2019)

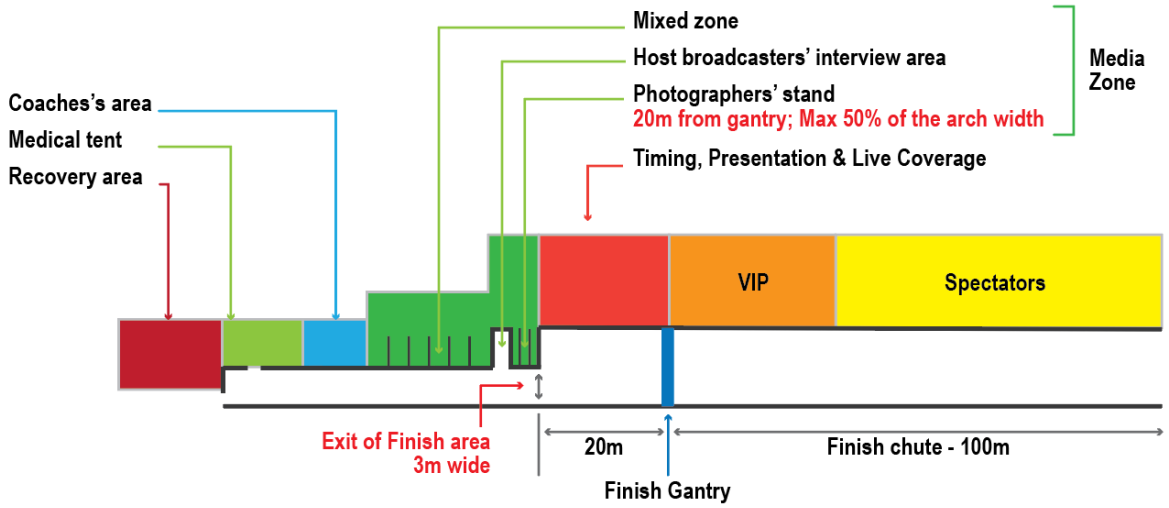


Diagram 28: Finish Area Layout Sample (ITU, 2019)

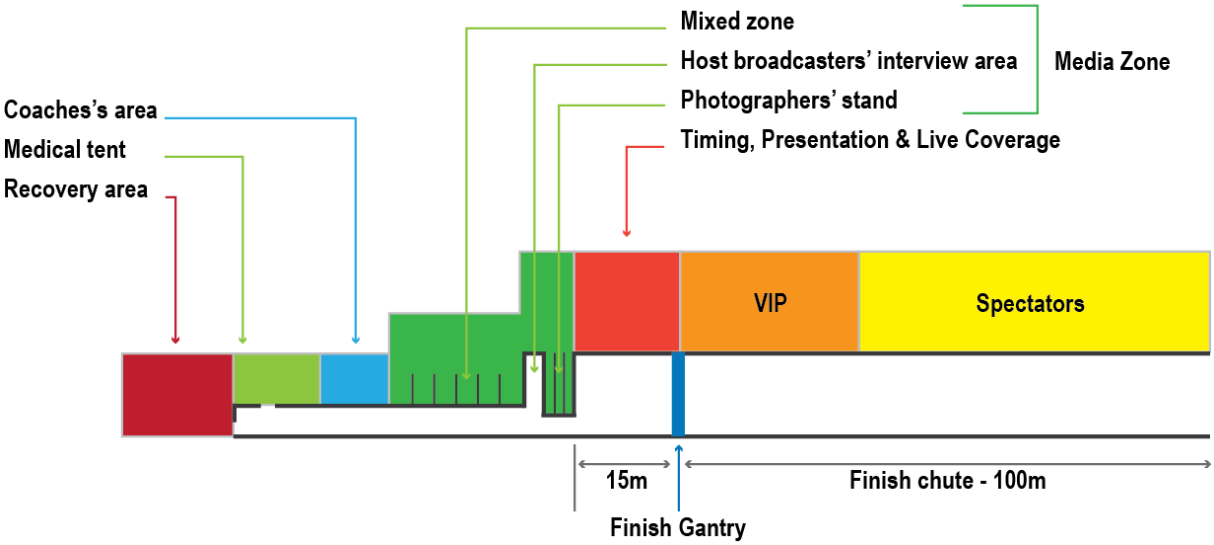
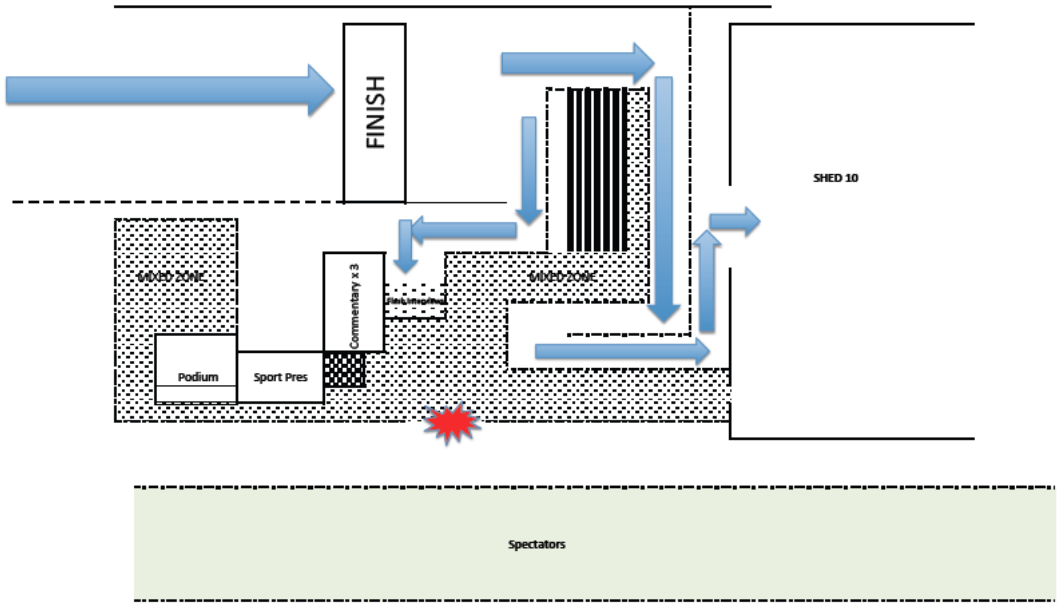


Diagram 29: “S” Shape Mixed Zone (ITU World Triathlon Auckland Grand Final, 2012)



4.14.1.3 Aquabike Finish Area– Specific Information

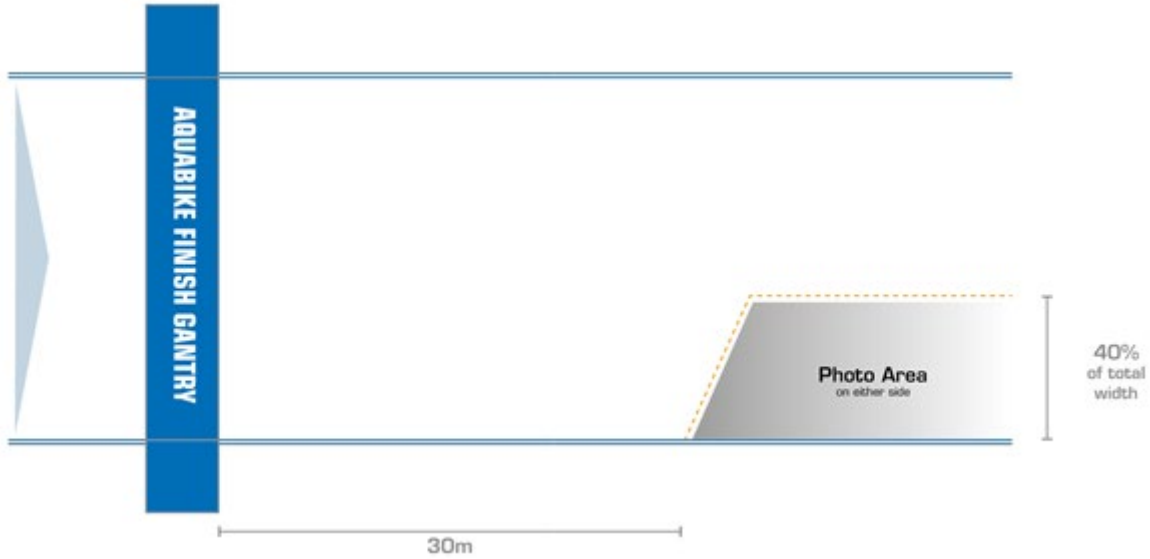
The Aquabike Finish recorded time can either be at an independent location at the end of the bike course or combined with the dismount line of a Long Distance Triathlon event. Following these locations, the athletes will continue to the transition where they should dismount their bicycle, place it in the TA and walk/run to a location next to the TA where a finish gantry will be located for photo opportunities.

The Aquabike point where the finish time will be recorded should follow the specifications below:

a) Should be free of all obstacles, both before and after the line (dangerous bends, narrow road sections, roundabouts, speed bumps, etc.);
b) Should be at least 100m long and 6m wide. The road width must be consistent. The road must not narrow at all. It should be located on a section of road that is flat or slightly uphill. A downhill finish must be avoided;
c) Must be protected by barriers;
d) It is highly advisable to use barriers with hidden bases, so that the feet of the barriers do not encroach on the roadway;
e) A line on the ground must be placed to identify this point, either painted or marked with anti-slippery tape. The line is a 4 cm-wide black line on top of a white band 72 cm wide, i.e. 34 cm of white each side of the black line;
f) A banner or arch should follow the ITU Branding Guidelines. The banner or arch must be sufficiently high to allow all vehicles to pass underneath (including buses, lorries, etc.). In case of an arch, the footings should be located outside the FOP;
g) The finishing athletes should be directed back to the TA;
h) The athletes will have to dismount at the dismount line and move to the TA, where dedicated medical and recovery facilities are located along with a dedicated finish gantry/backdrop for photo opportunities. The recovery and medical facilities may be different from the ones for the LD event;
i) In case of an independent location at the end of the bike course, additional considerations apply:
   - A booth for timers and the photo-finish equipment must be located next to the arch that highlights the finish timing recording point;

- An area is reserved for accredited photographers just behind the finish line. The photographers take up a position at least 30 m from the line. This distance can be increased depending on the circumstances of the race. A line is drawn on the road to mark out the photographers' area. The photographers can use up to 40% of the width of the road at the finish; and
- This area cannot be closer than 100m to the dismount line.

Diagram 30: Aquabike Finish Area Layout (ITU, 2019)



4.14.1.4 Cross Triathlon/ Duathlon Finish Area – Specific Information

a) In case of the middle and long distance events and cross triathlon/ duathlon events, the length and the width of the finish chute can be reduced to 50m (long) and 3m (wide) after approval from the ITU TD.
b) Carpet is not required.

4.14.1.5 Middle/ LD Distance Finish Area– Specific Information

a) In case of the middle and long distance events and cross triathlon/ duathlon events, the length and the width of the finish chute can be reduced to 50m (long) and 3m (wide) after approval from the ITU TD.

4.14.1.6 Winter Triathlon Finish Area – Specific Information

a) The finish straight must be at least 60m and allow for a sprint finish for several competitors at the same time. Classic style may be mandatory.
b) The last 60m of the chute has to be created in three separate lanes using short sticks to separate the lanes but still allowing the athletes to move from one track to the other.
c) The medical tent should be placed between 100m and 300m from the finish line, and with a separated isolated evacuation route connected to the finish area.
d) Hot drinks and blankets for all competitors are available in the finish area before entering the mixed zone.
e) Carpet is not required.

Picture 81: Classic style finish chute lanes (ITU Winter Triathlon World Championshps Cheile- Gradistei, 2018)

4.14.2 Finish Area Personnel

a) Security
- Security personnel must be assigned to all access points; and
- Security personnel must ensure to keep the finish and post finish area controlled.

b) Technical officials
- There will be a team of technical officials assigned to the finish area;
- The finish tape should always be held by technical officials who need to place themselves in a way that they don't interfere with the photo finish camera; and
- The technical officials will handle the athletes at the finish and after the photographer's stand the medical team will escort the athletes to the recovery or medical area (if needed).

c) Staff and volunteers
- A limited number of finish line volunteers will be assigned under the direction of the TD; and

d) Medical and doping control personnel
- Medical personnel will only enter the finish area in case of an emergency; and
- Doping control chaperones will approach their assigned athletes only as they exit the secured finish area. A doping control spotter can be in the secured finish area to record the numbers of the selected athletes for doping control.

e) Timing personnel
- Timing personnel must not be in the finish area or in the line of sight of the photographers on the photo stand; and

- Three trained volunteers will be assigned to collect the timing chips from the athletes. They should be located at the exit of the mixed zone. The volunteers should always use plastic gloves.

4.14.3 Finish Area Equipment

a) Finish gantry:

- The gantry should have clear space of 5m width and 2.75m clear space height to the lowest point (gantry clock or sponsors' boards);
- The finish area must be completely secured with a solid fence (minimum 1-metre tall);
- Fences may not cover the logos on the gantry;
- Only an ITU approved finish tape will be used. The tape will be held by two technical officials;
- The finish line will be clearly marked on the ground and be at least 0.1m in width and be in line with the outer edge of the gantry (from the view of the finish area) The set-up of the finish line can take place only after the placement of the photo finish cameras (if applicable) to align the line with the camera;
- There will be a photo finish camera mounted on the finish gantry to record the finish of each athlete. It will be positioned to record athletes as they break the vertical plane extending upward from the finish line on the ground and will be used by the Head Referee if there is a need to clarify which athlete crossed the finish line first (check specifications on photo finish camera on Section 6.2);

Picture 82: Finish Camera Set-Up Layout (ITU World Triathlon Madrid, 2010)

- Paratriathlon - PTWC photo finish set up: Regarding the set-up of the photo finish camera, the infrared photo beam device for wheelchairs is normally placed at approximately 0.25m height. if not possible to have this position, the ordinary position of the photo finish camera, as described above, should be used.
- The timing clock will be mounted in clear view of the photo stand, media stand and VIP viewing stand. If the timing clock is one sided, it should face the photographers' stand;
- There will be an official's notice board adjacent to the finish area prior to the mixed zone; and
- Water must be provided for the athletes in the finish area by the technical officials.

Diagram 31: Finish Gantry Specifications Sample (ITU, 2019)

4.14.4 Finish Area Procedures and Operational Plans

a) Six trained volunteers will be assigned to the role of athlete chaperone. These people will be responsible for ensuring that the Elite, U23, Junior and Youth medallists will be available at the assigned time and location for the official medal ceremony. For the WTS and the WC events this job will be assigned to the TOs.
b) The host broadcaster and the official ITU photographer will have a designated spot on the photographers' stand. All the other accredited media will have access to the media stand depending on the size of the stand.

4.15 Recovery Area

4.15.1 Recovery Area Layout

a) The specification of the recovery area can be found in the "Venue operations" section.

4.15.2 Recovery Area Personnel

a) Staff and volunteers:
   - Six volunteers should be assigned to the recovery area making sure that is constantly refuelled, kept clean and secured for the athletes.

4.15.3 Recovery Area Equipment

a) Sealed water, ice, towels, baskets with fruit and recovery drinks should be available in the recovery area.
b) The LOC should provide 4 bottles of 330ml water per athlete. This amount should be revised in extreme heat conditions.

c) Cold water tubs, hot water tubs, hot soup, air coolers and heaters should be considered based on the weather conditions.

4.16 Mixed Relay Zone

4.16.1 Mixed Relay Zone Layout

a) The exact placement of the Mixed Relay zone will be determined by the TD.
b) The Mixed Relay zone should be located outside of the bike and the run course and be connected to the swim start area.
c) Mixed Relay zone areas must be secured.
d) Needs to be 15m long.
e) The pre-relay zone should be adjacent to the Mixed Relay zone along with the recovery tent.
f) In case the exchange zone is far away from the athlete's lounge, a dedicated athlete's warm-up area of approximately 100m2 has to be provided adjacent to the pre-relay zone.
g) The Mixed Relay zone should be created in a way that both finishing and starting athletes are running in the same, opposite or 90° direction.

Diagram 32: Mixed Relay Zone- Running Same Direction Sample Layout (ITU, 2019)

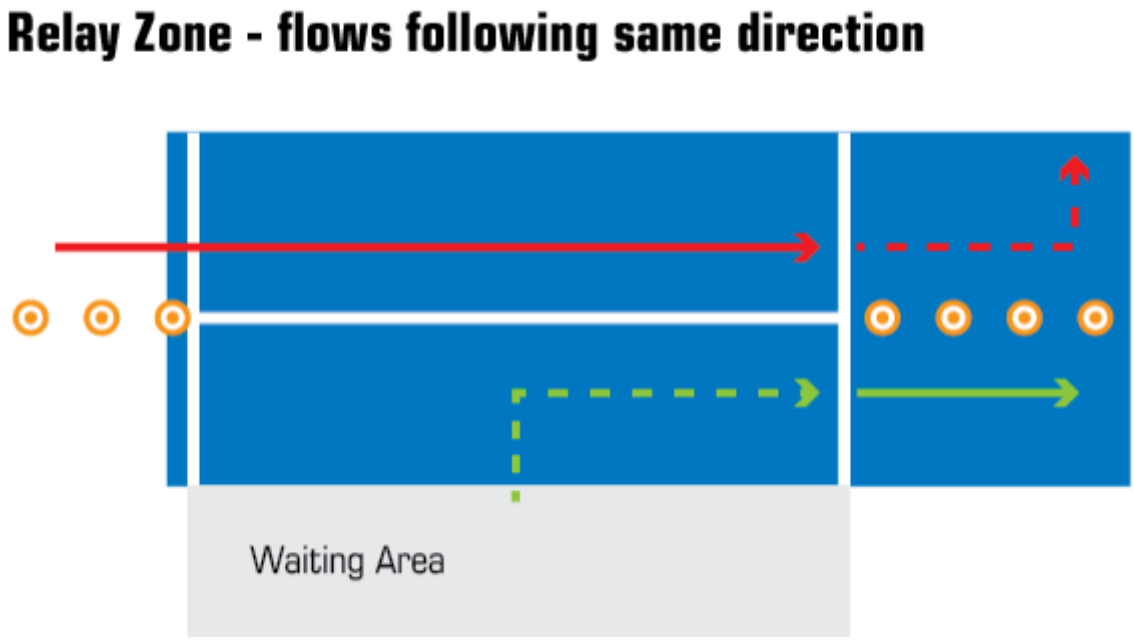


Diagram 33: Mixed Relay Zone- Running 90° Sample Layout (ITU,2019)

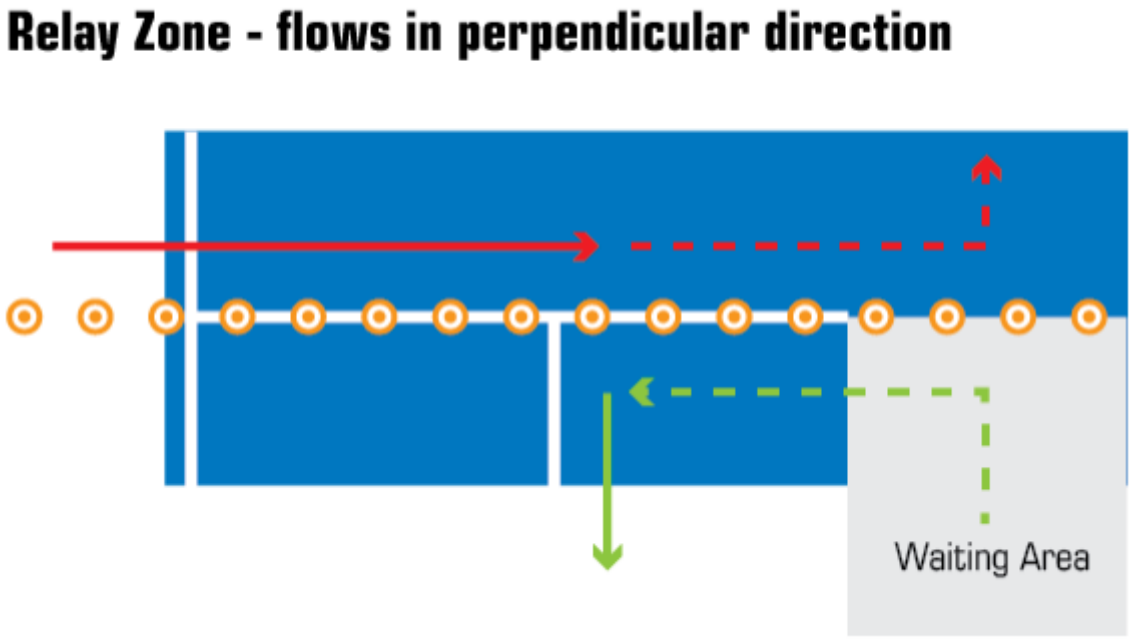
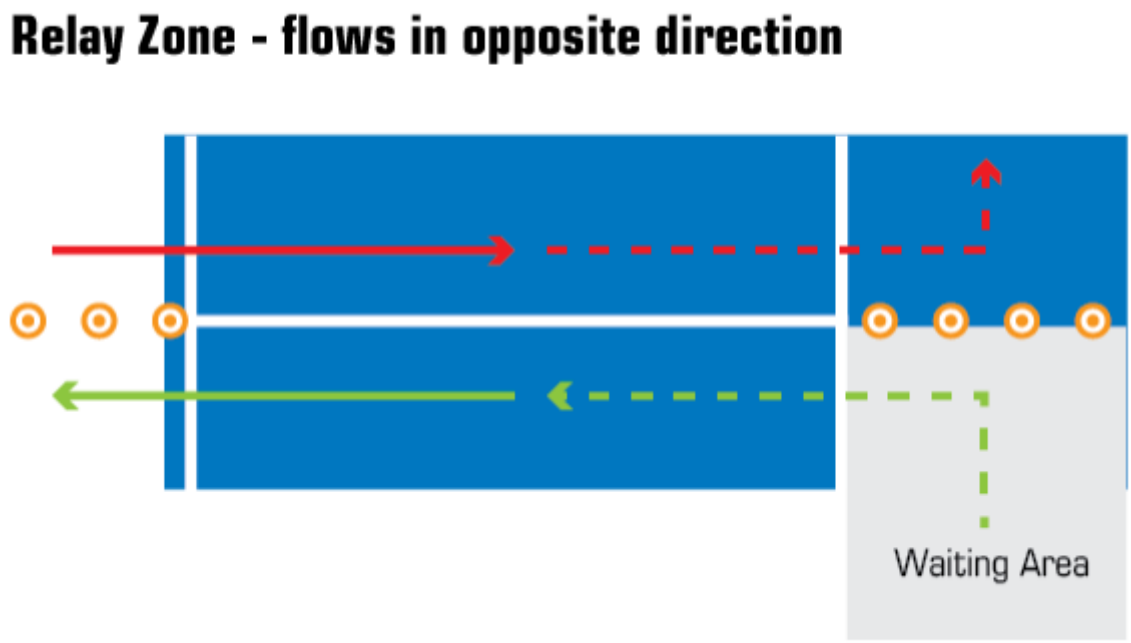


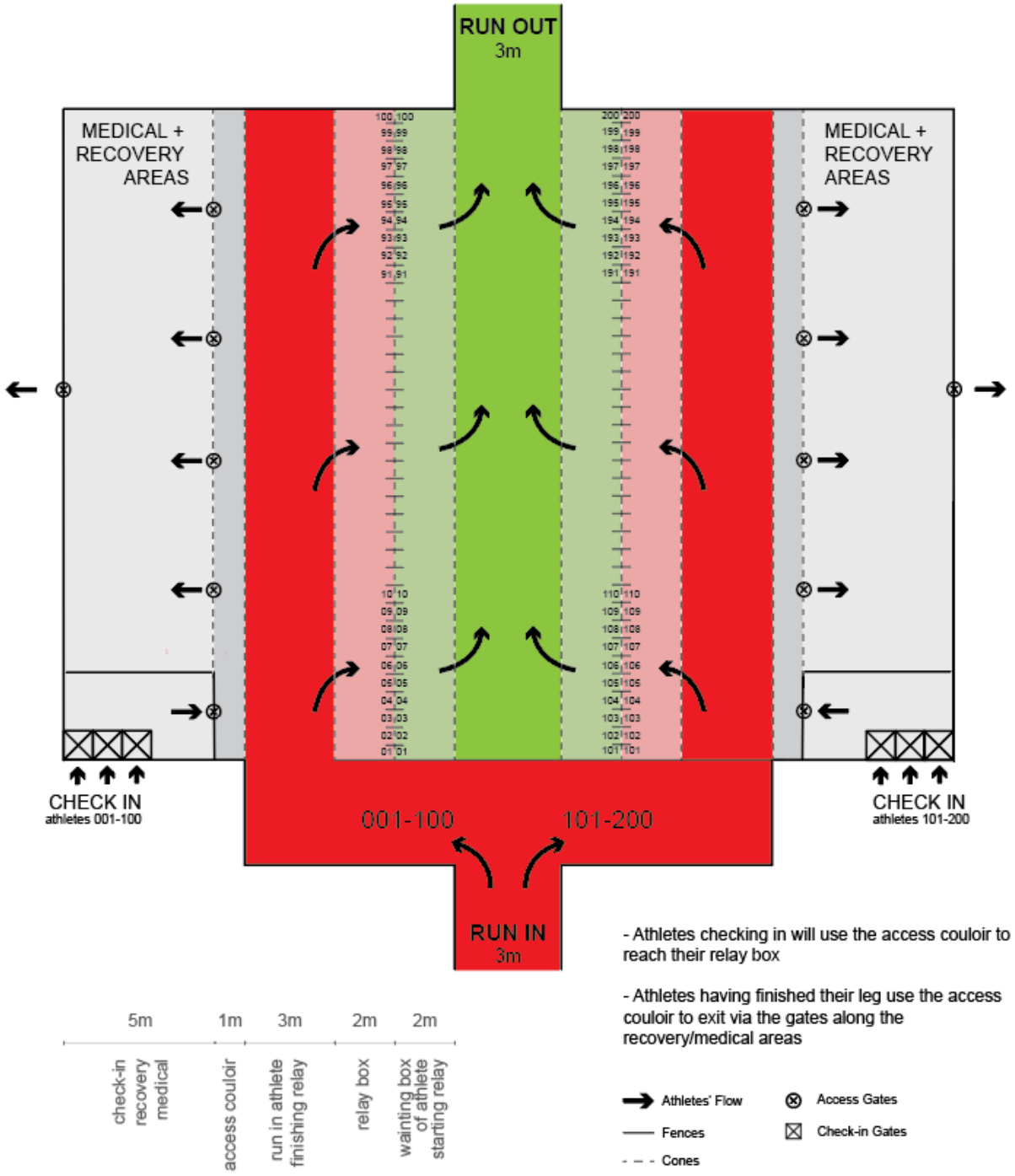
Diagram 34: Mixed Relay Zone- Running Opposite Direction Sample (ITU,2019)



4.16.1.1 AG Mixed Relay Exchange Zone – Specific Information

The exchange zone of a AG Mixed Relay should accommodate the volume of teams that are participating in order not to create any additional confusion to the athletes. The organiser should try to multiply the existing layout of an Elite Mixed Relay event twice or more based on the expected number of teams. But this way there will be specific sectors of this exchange zone according to the teams' race numbers.

Diagram 35: Age Group Exchange Zone Layout (ITU, 2019)



4.16.2 Mixed Relay Zone Personnel

a) Technical Officials:
- The Mixed Relay zone is managed and controlled by technical officials.

b) Medical:
- Personnel should be available at the Mixed Relay zone and recovery area.

c) Staff and volunteers:

- Volunteers should be provided by the LOC for timing chip collection and for managing the recovery area.

4.16.3 Mixed Relay Zone Equipment

a) Elite Mixed Relay
   - LOC will need to provide 1 table and 2 chairs for the check-in and 4 tables and 10 chairs at the recovery area.
   - 5m x 15m tent should be provided for the check-in and recovery area. If it is not possible to share the tent, then one tent 5m x 5m for check in and a 5m x 5m for recovery should be provided.

b) AG Mixed Relay
   - For the AG Mixed Relay event, the LOC should provide 50 chairs and 10 tables at the recovery area and 4 tables and 10 chairs at the check-in.
   - 2 3X3 pop up tents per section, are needed for the AG check in. For recovery area, a 50m2 tent should be provided per section.
   - Directional Signage within the area for the athletes.

4.16.4 Mixed Relay Zone Procedures and Operation Plans

Please refer to the ITU Competition Rules for the technical procedures of the Mixed Relay.

4.17 Winter Triathlon Course

4.17.1 General

a) Winter Triathlon competitions can be held either with running/mountain biking and cross country skiing or as a S3 Winter Triathlon with snowshoeing/skating and cross country skiing.
b) The layout of the different courses must allow for a safe, fair and fast competition.
c) It is recommended to use cross-country competition/training centres to host Winter Triathlon competitions.
d) Run, bike and cross country ski courses will be prepared as free style cross country circuits (see sections above).
e) The minimum course width should comply with FIS regulations (category D)
   - Uphills 9 meters,
   - Undulating terrain 7.5 meters and
   - Downhill 6 meters,
f) Spectator and media friendly are the other requirements for their design.
g) The different tracks must be packed and groomed with mechanical equipment to offer the best racing conditions. If heavy machines are used, they should follow the original configuration of the ground as much as possible to preserve the undulations of the terrain. One track should be marked in the undulated and downhill sections
h) Hills and descents must not be so steep that they unsafe, on foot, MTB or X country skis.
i) The condition of the snow being critical it is recommended to have separate courses for each segment.
j) The marking of the course must be so clear that the competitor is never in doubt where the course goes. Hard material course markings and commercial markings should only be placed at the sides of the course.
k) Forks and intersections on the course must be clearly marked by visible signage, and fences or V-boards must be placed across unused parts of the course.

Picture 83: V boards (ITU, 2019)

Picture 84: Nets and Flags (ITU, 2019)

Picture 85: Pinewood branches are appropriate to divide lanes in the finish chute (ITU, 2019)

Picture 86: Directional poles for the areas usually affected by fog (ITU, 2019)

4.17.2 Cross Country Ski Course Layout

a) Sprint distance: 2-4 laps.
b) Standard distance: 2-3 laps.
c) Team Relay: 1 lap.
d) The cross-country track allows for all styles.
e) The ski course should comprise a variation of climbs, downhill, turns and flat parts.
f) Marking of ski clamping area should be a carpeted area outside transition to allow athletes to put the skis on.
g) Classic style may be mandatory in some designated areas, such as the starting area and/or the finish. In this case, the tracks must be prepared accordingly.
h) Passing must be easy for any competitor at all times.
i) No motorised traffic besides officials and safety is authorised on the course.
j) Quads are preferable for the officials.
k) Directional signage is placed at 2m high.
l) Hot drinks should be available at aid stations.
m) Personal drinks and food may be given at designated aid stations (coaches' zones) by accredited coaches.

4.17.3 Bike and Run Course Layout

Please refer to the bike and run course sections for the generic and the specific information on Winter Triathlon events.

5 Section 5: Venue Operations

5.1 General

Several facilities have to be provided to host a Triathlon or Multisport event. A stadium should be created that may accommodate grandstand seating with large television screens and scoreboards to showcase the event according to the level that it belongs to. The assigned Technical Delegate is the person who has to approve the final venue layout and the different facilities.

5.2 Facilities/ Areas

The following facilities have to be provided:

5.2.1 Country Flags

a) In World Championships and Continental Championships, all the country flags that are represented in the event should be flown at the venue.
b) The nation has to be represented either by a technical official or an athlete, to be included on the list.
c) The ITU, host NF and host national flags should be placed on the left with the rest following in alphabetical order in the language of the host country.
d) The ITU flag has to be the first flag.

5.2.2 Accreditation and Security Room

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Championships Multisport World Championships	Other Events
15m2	n/a	n/a

- This room should be located at the entrance of the venue.

b) FF and E

Item	Quantity
Tables	2
Chairs	4
Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins	Yes

5.2.3 Athletes' Lounge – AG

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Championships Multisport World Championships	Other Events

300m2	200m2	n/a

- Food services (water, fruit, cookies, isotonic beverages);
- Access to toilets (20) – 2 that are wheelchair accessible with catheter disposal bins (in case Paratriathletes are using the same facility); and
- Bike mechanic available.

b) FF and E

Item	Quantity
Tables	30
Chairs	100
Notice board	Yes
Flooring	Yes
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes

5.2.4 Athletes' Lounge – Elite

a) Specifications:

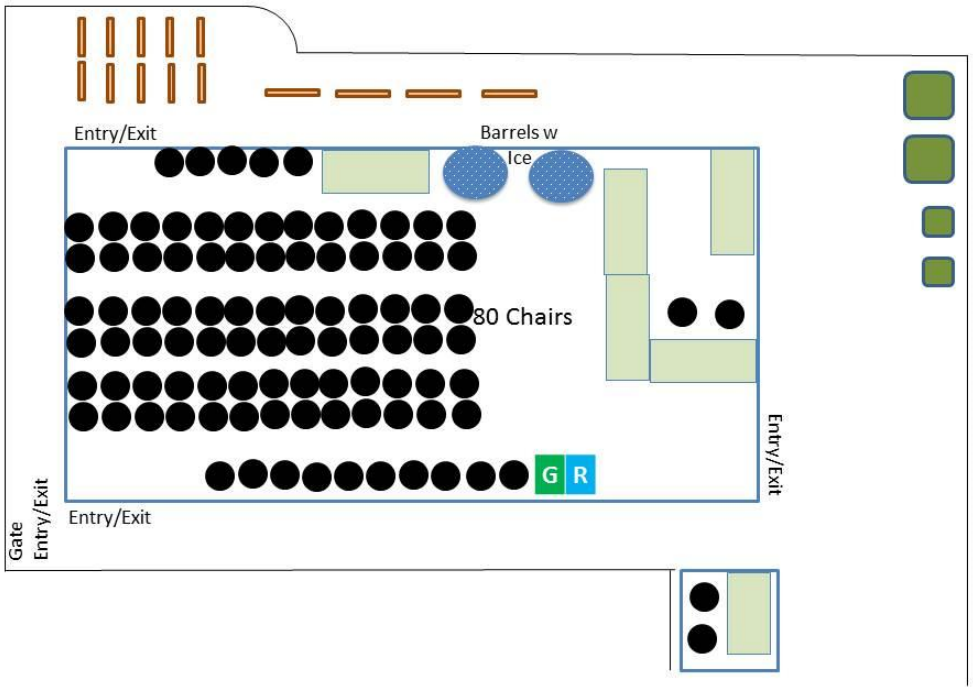
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
150m2 & 60m2 of an open space	100m2	60m2

- Food services (water, fruit, cookies, isotonic beverages, ice). 2 water bottles per athlete should be scoped;
- Clothing storage by race number;
- Access to toilets (5), 2 of them to be wheelchair accessible with catheter disposal bins;
- Showers are recommended to be provided;
- Bike racks must be provided outside of the facilities; and
- This area should be close to the elite transition area.
- In case of a Mixed Relay, team areas must be allocated within the Athletes' Lounge. A sign with country name and flag, together with six chairs must be provided.

b) FF and E

Item	Quantity
Tables	Yes
Chairs	80
Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins	Yes

Diagram 36: Elite Athletes' Lounge Sample (ITU World Triathlon Edmonton Grand Final, 2014)



5.2.5 Bag Drop-Off Area/ Tent

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
60m2	60m2	n/a

- This facility is available to AG athletes and they can have access with their bib number;
- The AG can deposit and collect their bag but they cannot have access to the specific tent so many volunteers are needed to retrieve the bags;
- A management system has to be created for easy access to the athletes' bags;
- Athletes' bags need to be tagged with a race number and hung from the walls; and
- This area should be within the AG athletes' village.

b) FF and E

Item	Quantity
Tables	7
Chairs	4
Notice board	No
Flooring	No

Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 37: Bag Drop Area Layout (ITU, 2019)

5.2.6 Bike Storage/ Mechanic

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
100m2	n/a	n/a

- This room is needed for events when the athletes have to store the bikes during the night at the venue; and
- This room should be equipped with bike racks.

b) FF and E

Item	Quantity
Tables	No
Chairs	No
Notice board	No
Flooring	No
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	No

5.2.7 Clean and Waste Compound

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships	Other Events

	Multisport World Championships	
300m2	100m2	n/a

- This should be an open space where garbage collection and recycling will take place; and
- This space should be allocated away from the spectators' areas.

b) FF and E

Item	Quantity
Tables	No
Chairs	No
Notice board	No
Flooring	No
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes

5.2.8 Commentary Position (Live TV)

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
15m2	15m2 (if applicable)	n/a

- This facility should be provided only if it is required by the host broadcasters; and
- This facility should be adjacent to the FOP and finish area.

b) FF and E

Item	Quantity
Tables	4
Chairs	6
Notice board	No
Flooring	Yes
Internet	Yes (wire internet)
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Picture 87: Commentator's Booth Sample (ITU,2019)

5.2.9 Competition Jury Room

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
15m2	15m2	n/a

- This room is located close to the post-finish area.

b) FF and E

Item	Quantity
Tables	1
Chairs	6
Notice board	No
Flooring	No
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes

5.2.10 Doping Control Station

a) Specifications:

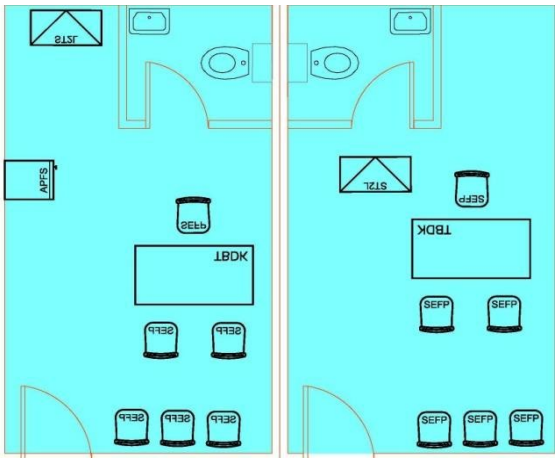
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
80m2	60m2	30m2

- The exact size of the Doping Control Station will be determined by the number and type of tests being conducted at the event. The sample collection agency conducting the tests will be able to specify exactly what requirements they will need to have to conduct the tests according to the International Standards of Testing and Investigation and the World Anti-Doping Code;
- Preferably not a tent, completely private area, away from the public and media;
- Minimum of two double toilets to accommodate the testing procedure (number will depend on the number of tests being collected);
- The toilets should be wheelchair accessible with catheter disposal bins;
- Bottled water, sport drinks, replenishing food for the athletes (sealed);
- Minimum of ten volunteers to work as drug testing chaperones (number will depend on the number of tests being collected); and
- Security personnel to ensure that only doping control personnel and athletes, with their designated personnel, are allowed in the Doping Control Station.

b) FF and E

Item	Quantity
Tables	4
Chairs	16
Notice board	No
Flooring	Yes
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes
Locked cabinet	Yes
Refrigerator	Yes

Diagram 38: Doping Control Station Sample (ITU, 2019)



5.2.11 ITU Media Office (on site)

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
30m2	30m2 (if applicable)	n/a

- Fridge for refreshments is required;
- Course and venue maps to be available; and
- This room has to be close to the finish area.

b) FF and E

Item	Quantity
Tables	3
Chairs	6
Notice Board	Yes
Flooring	Yes
Internet	Yes (wire internet)
Lights	Yes
Garbage & Recycling Bins (G/R)	Yes
Refrigerator	Yes

5.2.12 ITU Office (on site)

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
30m2	30m2	30m2

- This room has to be close to the finish area;
- Course and venue maps to be available; and
- Fridge for refreshments is required.
- Black and white laser printing facility;
- A high-speed photocopier with sufficient paper supplies and extra stationery and sufficient ink;

b) FF and E

Item	Quantity
Tables	3
Chairs	6
Notice board	Yes
Flooring	Yes
Internet	Yes (wire internet)
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Refrigerator	Yes
Locked cabinet	Yes
Printer	Yes
Photocopier	Yes

5.2.13 LOC Office (on site)

a) Specifications:

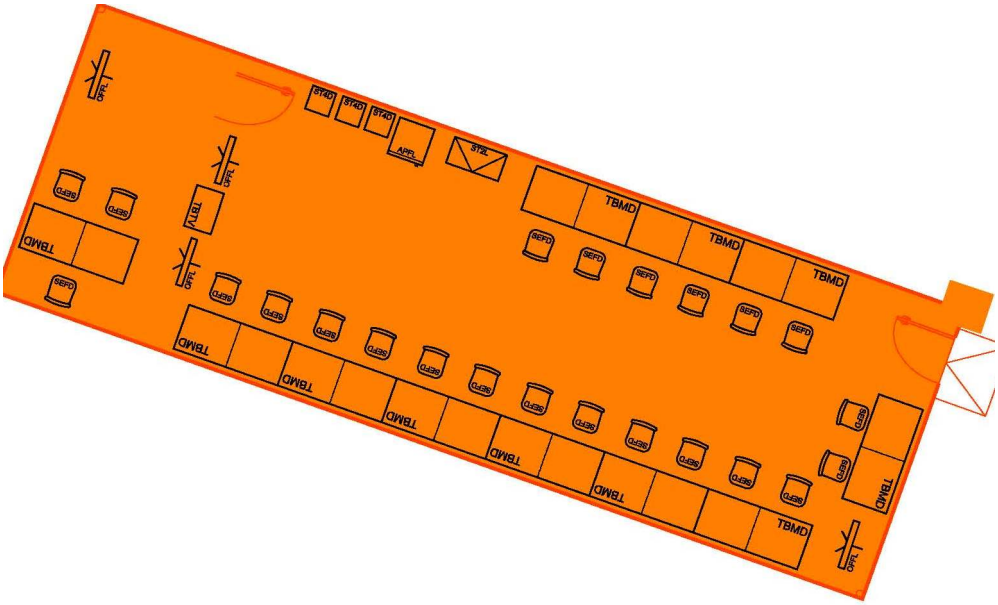
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
60m2	60m2	30m2

- Fridge for refreshments is required;
- Course and venue maps to be available; and
- This office should be located next to the ITU office.
- Black and white laser printing facility;
- A high-speed photocopier with sufficient paper supplies and extra stationery and sufficient ink;

b) FF and E

Item	Quantity
Tables	Yes
Chairs	Yes
Notice board	Yes
Flooring	Yes
Internet	Yes (wire internet)
Lights	Yes
Garbage & recycling bins (G/R)	Yes
Refrigerator	Yes
Printer	Yes
Photocopier	Yes

Diagram 39: LOC Office Sample (ITU, 2019)



5.2.14 Massage Area

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Championships Multisport World Championships	Other Events
80m2	80m2	80m2 (if applicable)

- A massage facility should be in placed adjacent to the athletes' lounge, but not in the medical facility area;
- The massage facility should be a tent or other such covered facility;
- The number of massage personnel should be determined by the number of athletes and the level of services offered;
- Massage is not a requirement, but is recommended as a service to the athletes; and
- Physiotherapy beds and/or massage tables can be provided by the masseur group contracted for the event.

b) FF and E

Item	Quantity
Tables	Yes
Chairs	Yes
Notice board	No
Flooring	Yes
Internet	No
Lights	No
Garbage & recycling bins (G/R)	Yes

5.2.15 Media Centre

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
100m2	60m2	n/a

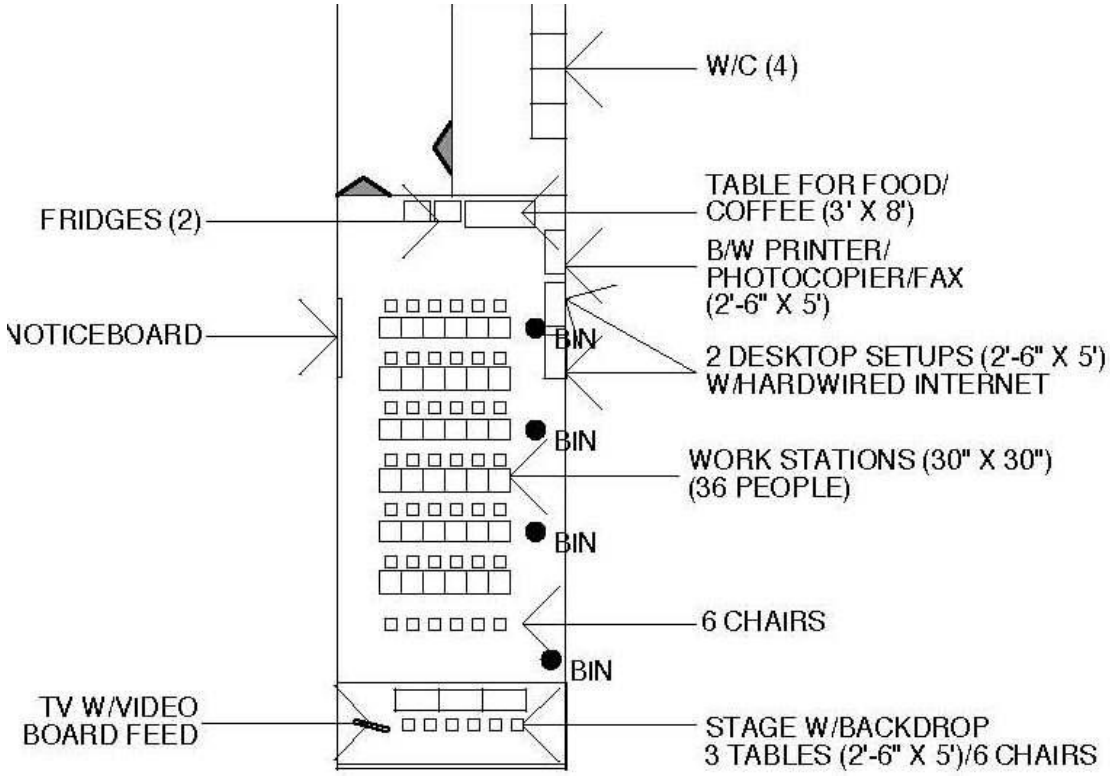
If the event has a press centre it should contain the following:

- The LOC will provide a stable high-speed internet connection and router / switch with enough ports for the expected number of media;
- Black and white laser printing facility;
- A high-speed photocopier with sufficient paper supplies and extra stationery and sufficient ink;
- Fax machine capable of international fax distribution;
- Well placed visible facility signage detailing the correct event title name;
- Notice board for maps, results and other news;
- Pigeon holes for press releases and flash quotes; and
- Refreshments for the entire day for international and local media.

b) FF and E

Item	Quantity
Tables	Yes
Chairs	Yes
Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes
Printer	Yes
Photocopier	Yes

Diagram 40: Media Centre Layout Sample (ITU, 2019)



5.2.16 Medical Area

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
120m2	80m2	80m2

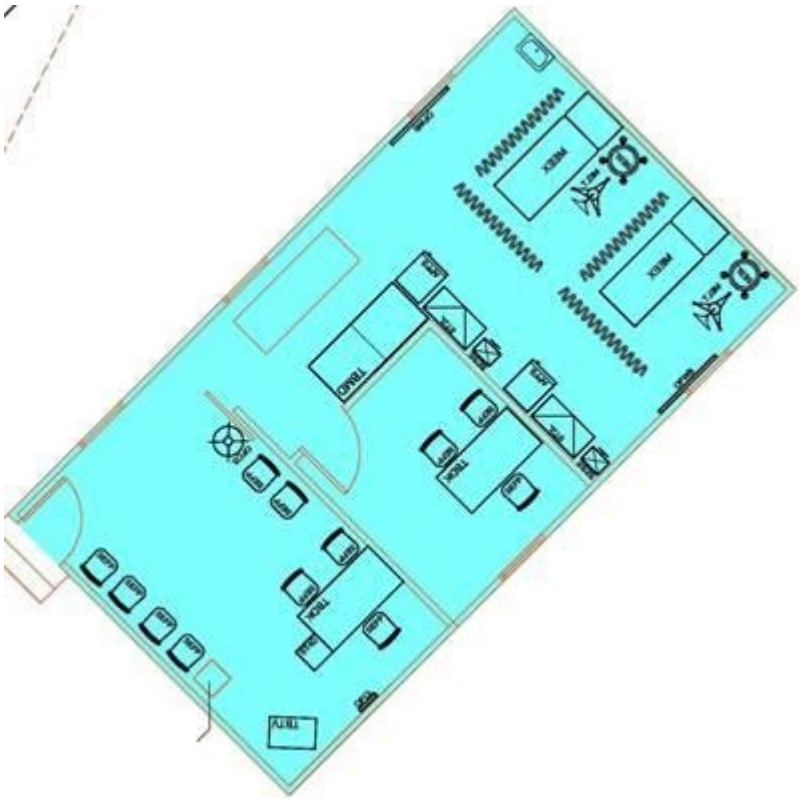
- Adjacent and accessible to post-finish area;
- Radio communication and medical records area;
- Must be in a secure area with direct access to the finish area and must not be accessible to media; and
- Emergency access and ambulance placement must be planned for easy entering and exiting.
- Additional Requirements:
- 2 wheelchairs;
- 1 carry chair;
- stretchers; and
- Access to toilets.

b) FF and E

Item	Quantity
Tables	4
Chairs	12-20

Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 41: Athletes' Medical Room Layout (ITU, 2019)



5.2.17 Post-Finish Classification Room

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
n/a	15m2	n/a

Additional Requirements:

- Two physiotherapy beds;
- One pillow;
- Two pillow cases, two sheets and two towels;
- Drinking water;
- Hand sanitiser and disinfectant wipes to clean down the examination bed; and
- Toilet (if possible).

b) FF and E

Item	Quantity
Tables	1
Chairs	4
Notice board	No
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes
Physio bed	2

5.2.18 Recovery Area

a) Specifications:

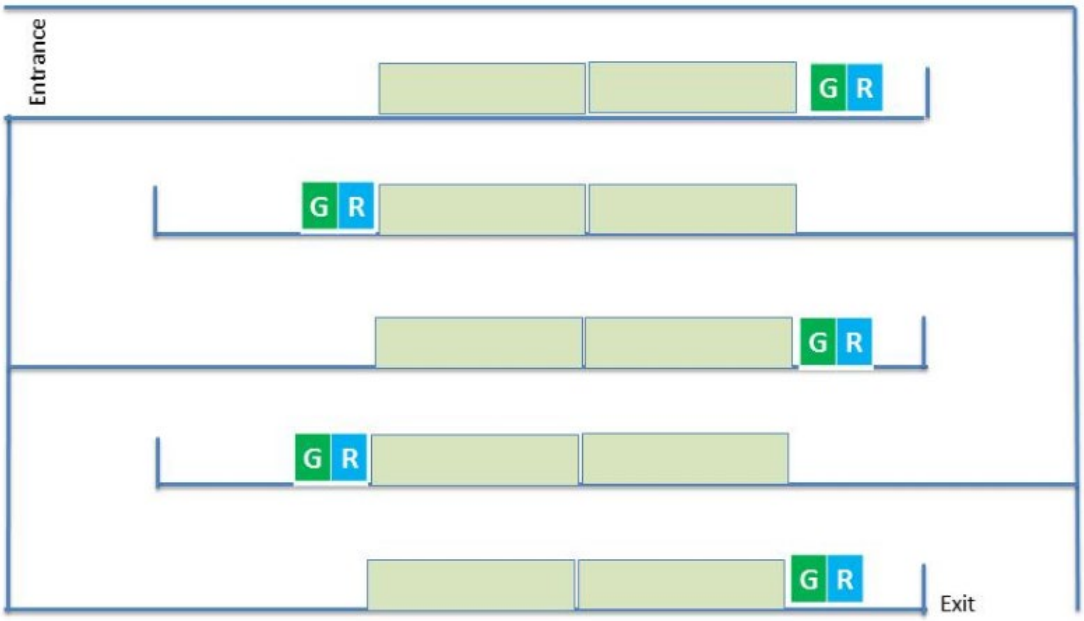
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
150m2	100m2	100m2

- The recovery area should be created in a way that there is a continuous flow of athletes through it. There should never be a backlog of athletes at any specific point. It should be created as a corridor like design where different kinds of re-freshments and food supplies will be provided at different points to encourage the athletes to keep the flow going.

b) FF and E

Item	Quantity
Tables	10
Chairs	40
Notice board	Yes
Flooring	No
Internet	No
Lights	No
Garbage & recycling bins (G/R)	Yes

Diagram 42: Recovery Area Layout Sample (ITU, 2019)



5.2.19 Spectators' Services (Medical)

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
15m2	n/a	n/a

- Should be provided for spectator medical personnel; and
- This facility should be adjacent to the spectators' stands.

b) FF and E

Item	Quantity
Tables	1
Chairs	4
Notice board	No
Flooring	Yes
Internet	No
Lights	No
Garbage & recycling bins (G/R)	Yes

5.2.20 Sport Expo Facilities

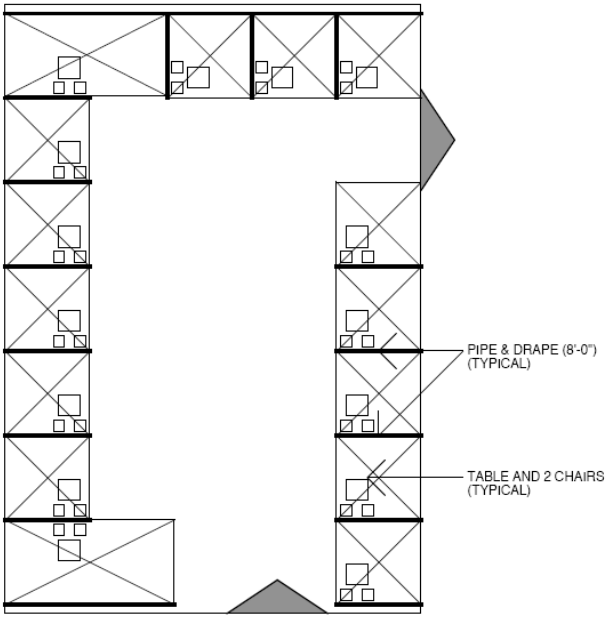
a) Specifications:

- Planned to maximise sales opportunities for the exhibitors; and
- Area uniformly and tastefully laid-out. You should be able to provide marquees to the exhibitors of the following sizes - 3mx3m, 6mx3m or 9mx3m.

b) FF and E

Item	Quantity
Tables	Yes
Chairs	Yes
Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 43: Sport Expo Sample (ITU, 2019)



5.2.21 Sport Presentation Booth

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
30m2	15m2	15m2

- A raised platform may be erected close to the finish area to provide adequate view of the entire stadium area and the big screen;
- The dimensions of the platform will be a minimum of 4m x 6m and will be 5m off the ground; and

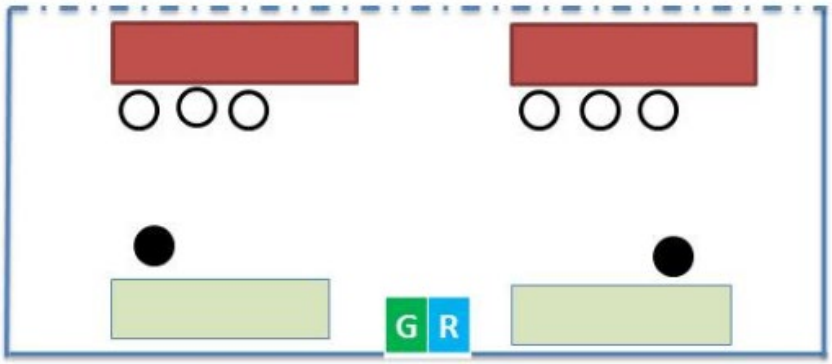
Additional Requirements:

- This area should be equipped with an electrical hook-up for audio visual, and announcer's computer feed.

b) FF and E

Item	Quantity
Tables	4
Chairs	6
Notice board	No
Flooring	Yes
Internet	Yes (wire internet)
Lights	No
Garbage & recycling bins (G/R)	Yes

Diagram 44: Sport Presentation Room Layout (ITU World Triathlon Edmonton Grand Final, 2019)



5.2.22 Timing and Results Centre

a) Specifications

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
30m2	15m2	15m2

- An area attached to parking for the timing company's vans; and
- High speed Internet.

b) FF and E

Item	Quantity
Tables	3
Chairs	6
Notice board	Yes
Flooring	Yes
Internet	Yes (wire internet)
Lights	Yes
Garbage & recycling bins (G/R)	Yes

5.2.23 TOs' Lounge

a) Specifications:

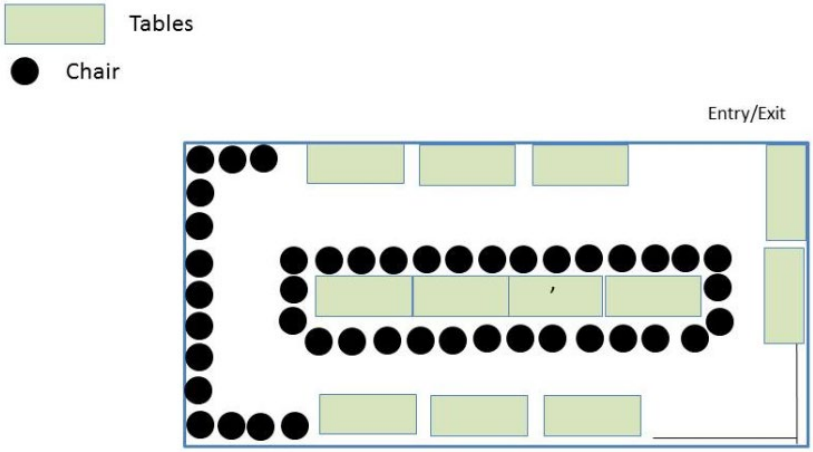
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
100m2	60m2	30m2

- Lockers.

b) FF and E

Item	Quantity
Tables	10
Chairs	50
Notice board	Yes
Flooring	No
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 45: TOs' Lounge Set-up Sample (ITU World Triathlon Edmonton Grand Final, 2019)



5.2.24 TV Compound

a) Specifications:

World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
500m2	n/a	n/a

- This facility should be provided only if it is required by the host broadcasters;

b) FF and E –To be requested by the Broadcasters

Item	Quantity
Tables	n/a
Chairs	n/a
Notice board	n/a
Flooring	n/a
Internet	Yes (wire internet)
Lights	Yes
Garbage & recycling bins (G/R)	Yes

5.2.25 Venue Control Centre (VCC)/ Radio Distribution

a) Specifications:

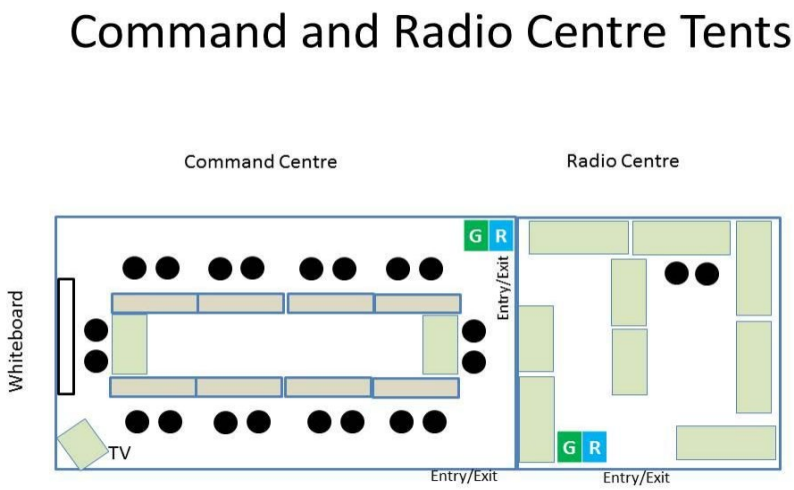
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
60m2	60m2	30m2

- Fridge for refreshments is required;
- 3 radio operator tables;
- 4 x detailed course and venue maps; and
- Adequate power supply.

b) FF and E

Item	Quantity
Tables	14
Chairs	22
Notice board	Yes
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes
Refrigerator	Yes

Diagram 46: VCC/ Radio Distribution Layout Sample (ITU World Triathlon Edmonton Grand Final, 2014)



5.2.26 VIP Lounge

a) Specifications

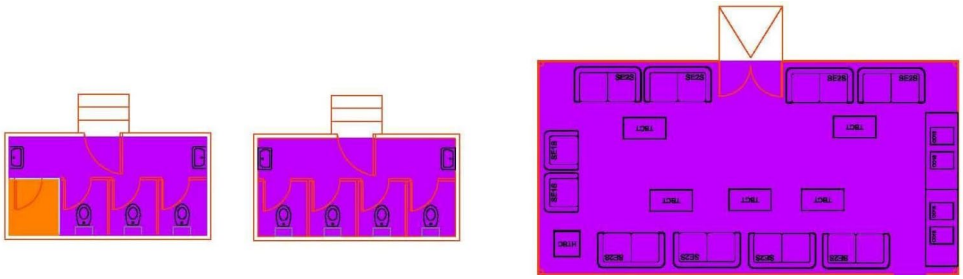
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
300m2	100m2	60m2

- The VIP area should:
  - Be adjacent to and with a clear view of the finish line with an area for food and beverage preparation.
  - Have full view of any big screens and be accessible to VIP grandstand viewing
  - Be tastefully decorated (umbrellas, draped tables). Plants, flowers and other decorations should be planned to enhance the aesthetics of the area.
  - Be kept clean at all times.
  - Be wheelchair accessible.
  - Have access to toilets (6).
- The PA system should be independent and volume adjustable for that area.

b) FF and E

Item	Quantity
Tables	According to the final number of VIPs
Chairs	According to the final number of VIPs
Notice board	No
Flooring	Yes
Internet	Yes
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 47: VIP Area Layout Sample (ITU, 2019)



5.2.27 Volunteers' Tent

a) Specifications

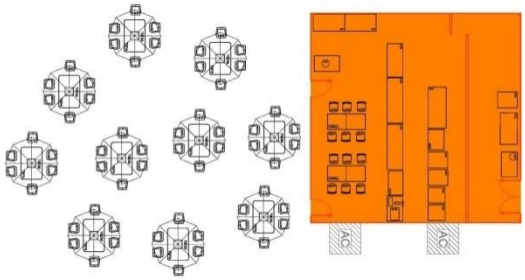
World Triathlon Series	World Cup Paratriathlon International Events Triathlon Continental Champion-ships Multisport World Championships	Other Events
120m2	120m2	100m2

- Provision for allocating of food services; and
- Access to toilets on the bike and run course.

b) FF and E

Item	Quantity
Tables	According to the final number - to fit 20% of the volunteers at once
Chairs	According to the final number - to fit 20% of the volunteers at once
Notice board	No
Flooring	No
Internet	No
Lights	Yes
Garbage & recycling bins (G/R)	Yes

Diagram 48: Volunteer's Tent Layout Sample (ITU, 2019)



5.2.28 Bike Cleaning Facility

For Cross Triathlon/ Duathlon and Winter triathlon events, a bike cleaning facility should be provided with water spray or water hose, for athletes to be able to clean their bikes following the competition.

5.2.29 Smoking Area

Within the venue, smoking should not be allowed inside any provided room/tent/container and/on or next to the FOP. An area should be created within the venue for smokers, wide enough to accommodate the needs.

5.3 Venue Wheelchair Accessibility

a) Ramps
- The percentages for ramps are the proportion between the height and the length. For instance, 1:12 means that for every 12m in length, there is 1 metre elevation;
- At the venue for non-competition areas, the slope of a ramp shall be between 1:20 and 1:24, which is (4-5%).
- In general:

Table 25: Ramp's Specifications (ITU,2019)

LENGTH	MAX PERCENTAGE ELEVATION	ANGLE°
Over 10m	8%	7,12
3m < ramp < 10m	10%	5,71
Ramp < 3m	12%	4,76

- Ramps should ideally have a minimum of:
  - 1.20m width for individual wheelchair passage
  - 1.40m for the passage of an individual and a wheelchair
  - 1.80m for the passing of two wheelchair users

TIPS

A wheelchair can tip backwards if going up a sloop of 12 degrees or more.

b) Landings
- If a ramp is longer than 9m, a landing is required. The maximum horizontal length between landings shall not exceed 9m.

c) Other requirements
- In principle, where steps or stairs are provided, a ramp or lift shall also be provided as an accessible alternative;
- Ramp floor surfaces must be slip-resistant and should have a detectable warning surface that is colour and texture contrasted to adjacent surfaces;
- Ramps greater than 60 meters in length should be replaced with a lift arrangement if possible. That means that for a vertical height difference of more than 3m. solutions other than ramps are preferred;
- The length of the landing may be reduced to 1,2m for private use (e.g. in a house) while a length more than 2m may be required in areas with increased public circulation; and
- In cases where there is a change of the direction of the ramp after a landing, additional space is required.

d) Exceptions
- In temporary facilities or overlay equipment, a max. slope of 1:12 is acceptable, given that the vertical rise between landings is no more than 0.5m and the length of the ramp between landings is no more than 6m; and
- Handrails are not required for a ramp serving as an aisle for fixed seating.

e) Doors

- Venue doors should be at least 1.2m width, but for room access and hotel rooms the standard is 0.85m.

5.4 Public Address System

a) A high quality public address system has to be provided that will produce clear sound to:
   - Swim start;
   - Stadium area; and
   - Extend a minimum of 100m outside of the stadium area.

b) A separate system may be required at the swim start area to ensure full coverage for the Head Referee.

c) A PA system check must be planned at least 24 hours prior to the competition start.

d) The venue sound system plan has to be approved by the Technical Delegate.

5.5 Venue Zoning

All the specific sport venue facilities can be separated into 4 (zones) according to their required distance from the finish area:

Table 27: Venue Zoning (ITU, 2019)

Zone	Distance from the finish line	Facilities
1	Attached to the finish line	Medical Area, Recovery Area
2	Close to the finish line	Athletes' Lounge – Elite, Bike Storage/ Mechanic, Doping Control Station, Massage Area, Post Finish Classification Room
3	Close to the stadium area (in one compound)	Athletes' Lounge – AG, Bag drop off area/ tent
4	Close to the stadium area (in one compound)	Competition Jury Room, ITU Media Office (On site), ITU Office (On site), TOs' Lounge.

5.6 Directional Signage

5.6.1 Way Finding Signage

a) It is important for the LOC to invest in way finding signage at the race venue, to achieve the best possible orientation and navigation for the different clients.

b) The way finding signage has to be included in the overall event's branding plan, since it provides an excellent promotional opportunity to the event's sponsors.

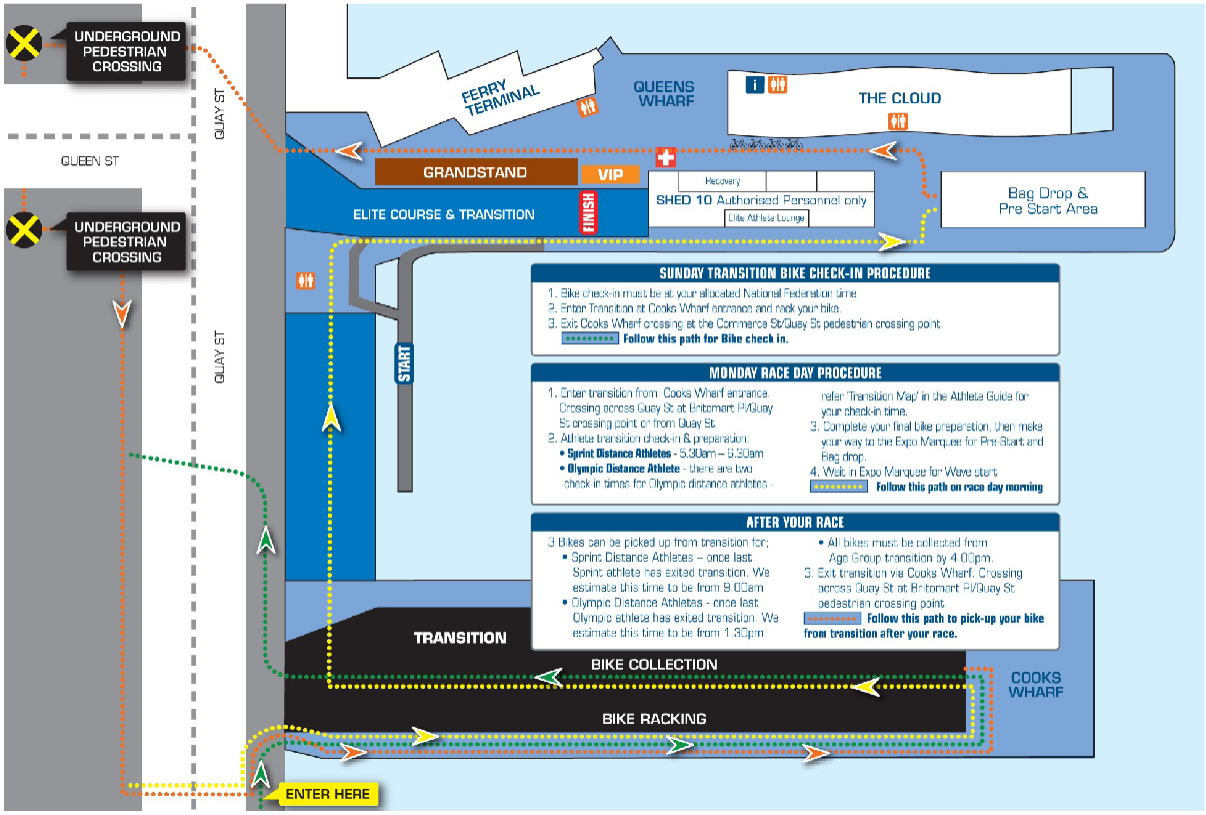
c) The signage should be made of a hard board. A heavy foot panel is needed for keeping it in position. The approximate height should be 1.4m with 0.4m wide. The thickness of the board should be 4 mm.

Picture 88: Way Finding Signage Sample (ITU, 2019)

5.6.2 Athletes' Venue Movement Map

It is quite often the case where venues are quite complicated to get oriented. Two of the major groups that need to be guided properly, are the spectators and the AG athletes. If these groups know where they need to go, long queues and congestions can be avoided. For the first group, please refer to the spectators' services section for a sample of a spectators' map.
For the AG athletes, the LOC has to provide a map of where they will direct the AG athletes to the correct locations before and after their competition.

Picture 89: AG Athletes' Venue Movement Map (ITU World Triathlon Auckland Grand Final, 2012)



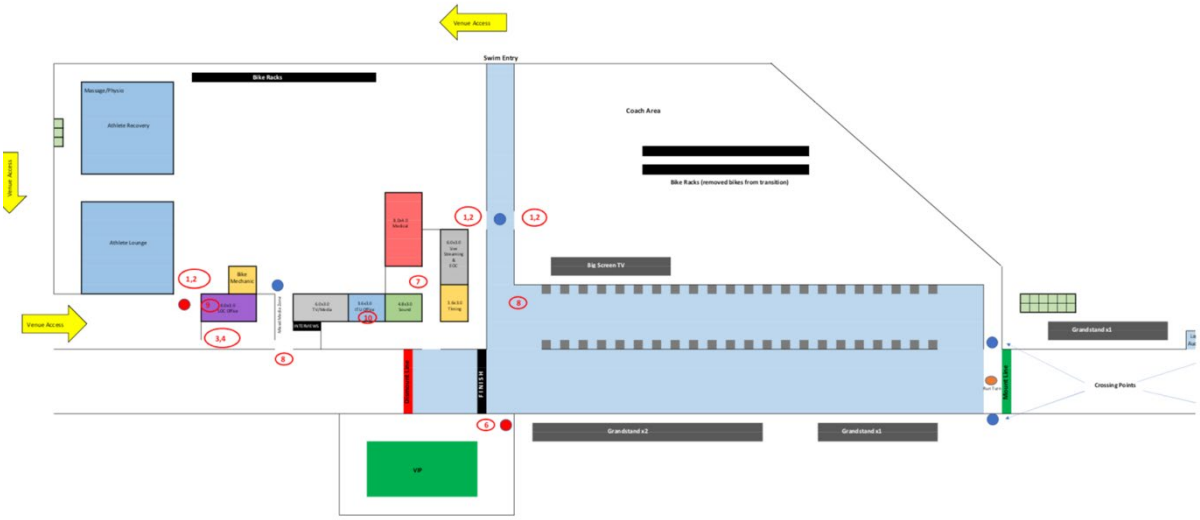
5.7 Operation Plans/Maps

There are a number of plans and maps that are needed to support the proper planning of a venue. These plans will have to be checked and approved by the Technical Delegate.

5.7.1 Venue Map

The venue map is the "on scale" graphic representation of the provided facilities, without considering the architectural or engineering drawings.

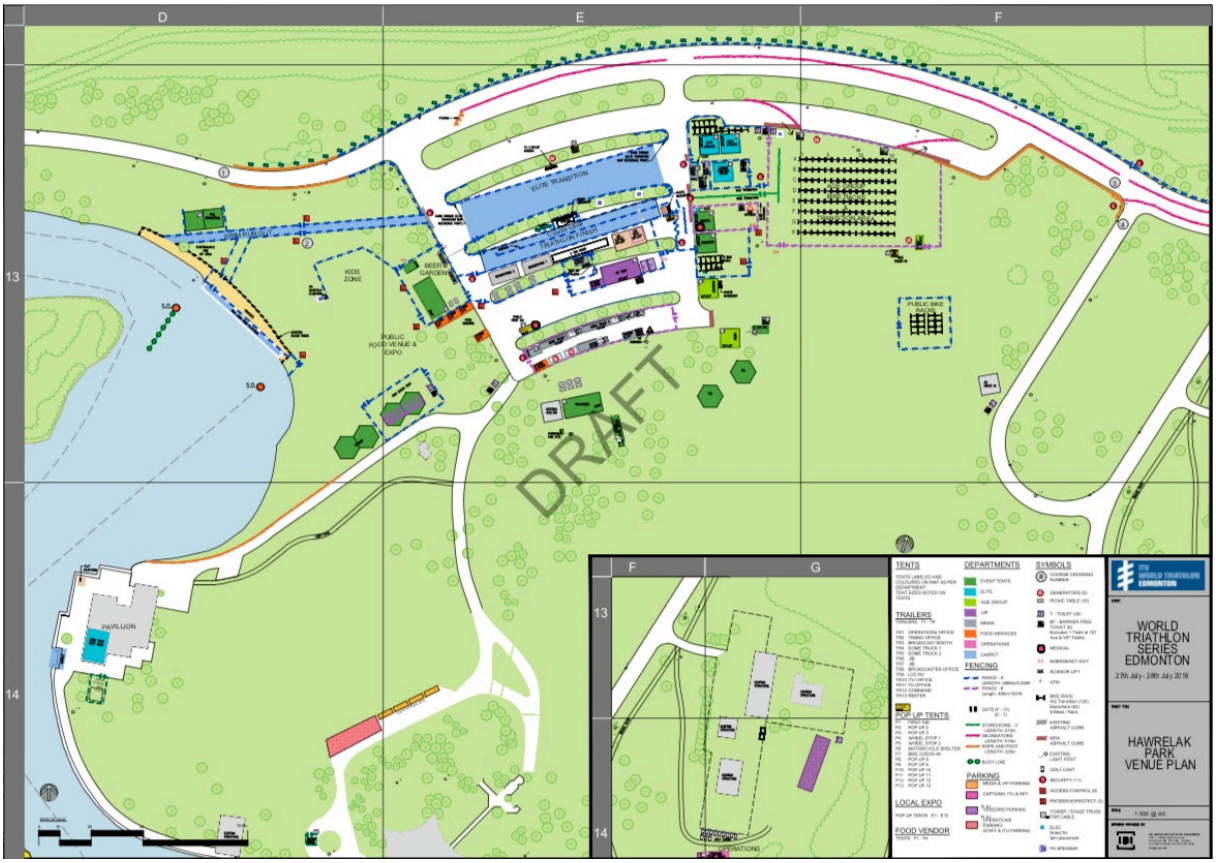
Picture 90: Venue Map Sample (ITU World Cup New Plymouth, 2018).



5.7.2 Site Plan

a) A site plan is an architectural plan and a detailed engineering drawing.
b) A site plan usually shows a building footprint, travel ways, parking, drainage facilities, sanitary sewer lines, water lines, trails, lighting, and landscaping and garden elements.
c) Such a plan of a site is a "graphic representation of the arrangement of buildings, parking, drives, landscaping and any other structure that is part of a development project".
d) Site plans are often prepared by a design consultant who must be either a licensed engineer, architect, landscape architect or land surveyor.

Picture 91: Site Plan Sample (ITU World Triathlon Edmonton, 2018)



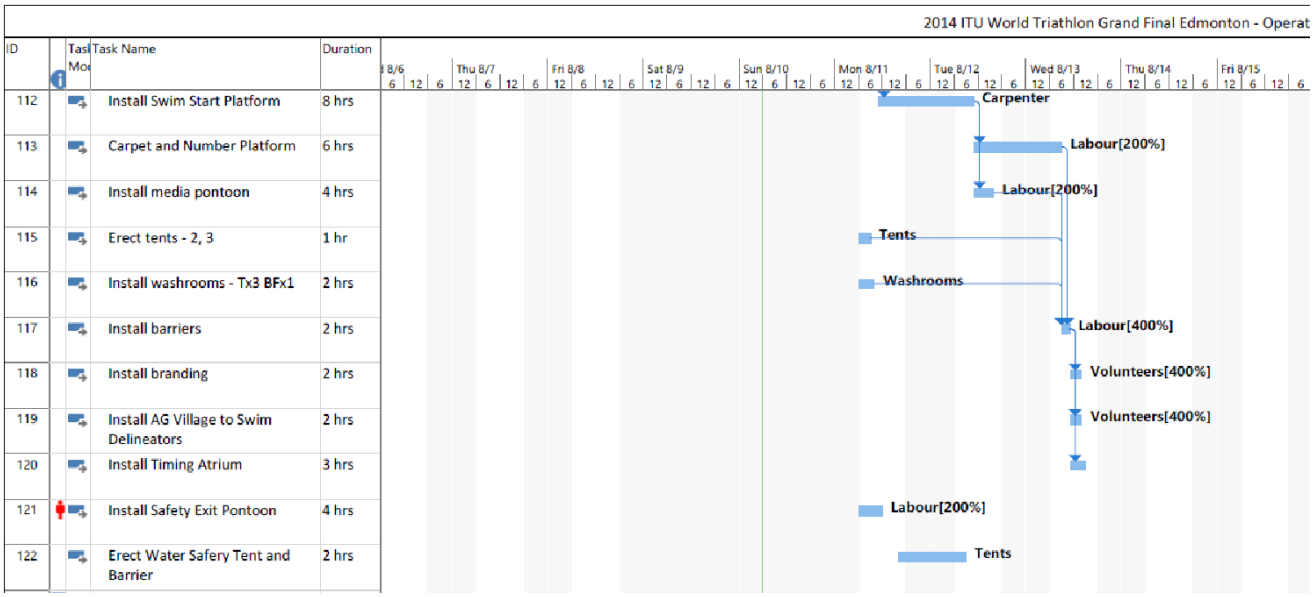
5.7.3 FF and E Distribution List

The furniture, fixture and equipment list is the detailed list of the equipment that is needed in each of the venue rooms. The detailed list can be found in section 5.2.

5.7.4 Build-In Schedule

a) This is the detailed building schedule of the venue.
b) This document includes the dates that the specific activities will take place.

Picture 92: Build-In Plan Sample (ITU World Triathlon Edmonton Grand Final, 2014)



5.7.5 Cabling Plan

a) This is the plan that shows the cable paths around the venue and the solutions that are proposed for crossing the cables over the FOP.
b) This information must be included inside the site plan.

5.7.6 Internet Access

The entire WTS venue needs at least 100Mbps connection split amongst the multiple areas. This is reduced to 50Mbps for World Cup and other events.
Some additional considerations on events with live broadcasting and high media presence may apply as:

- Dedicated hardwire internet for Broadcast and Timing.
- High upload speed for Media (min 10Mbps upload ideally 20)
- Secured Wi-Fi across the venue (Sport Presentation, swim start, offices)
- Live streaming from onsite: Min 10Mbps upload speed (ideally 20) with a dedicated hardwire connect necessities
- Others

Diagram 49: Event Internet Access Guidelines (Tapfuse, 2019)

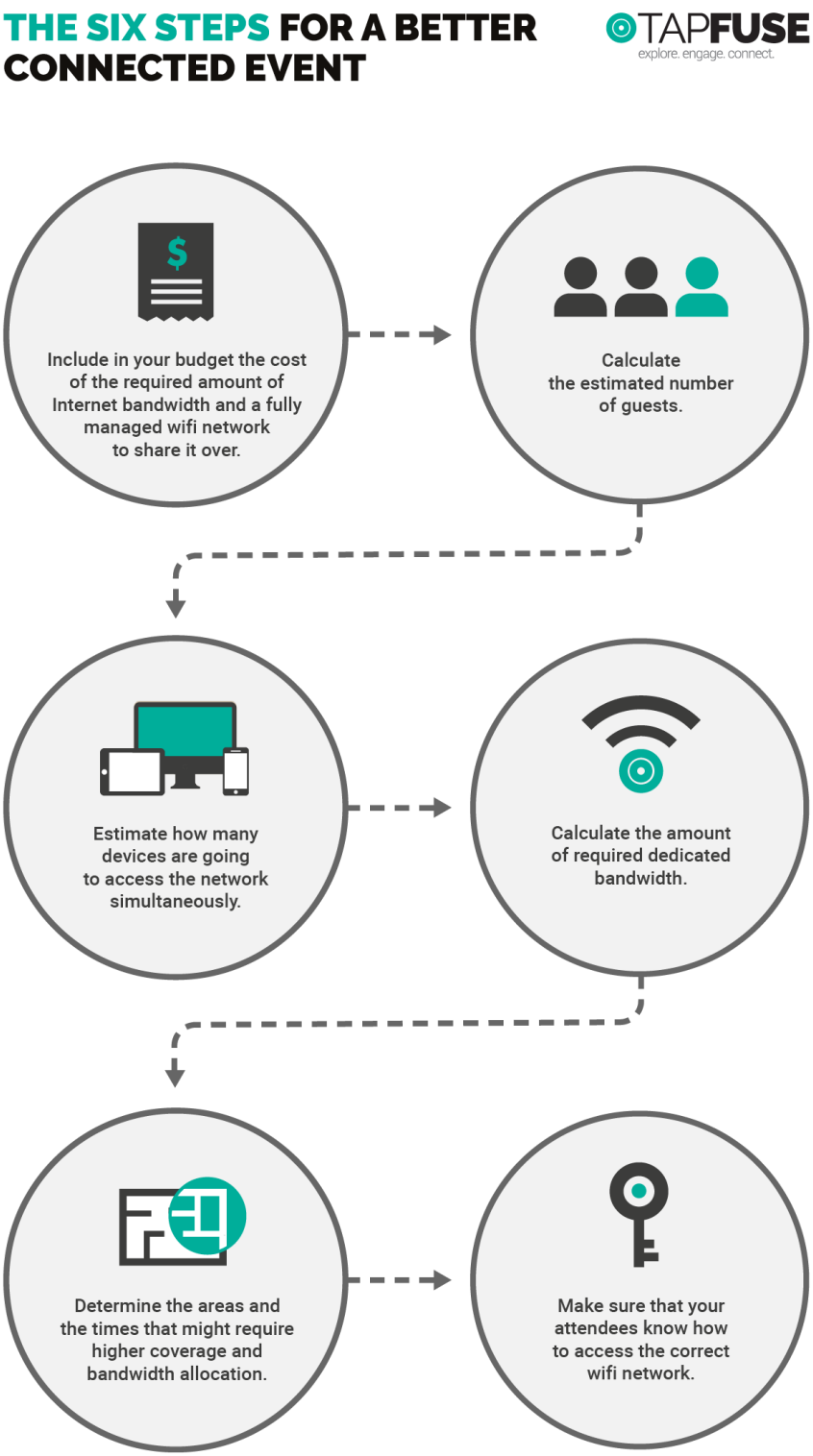
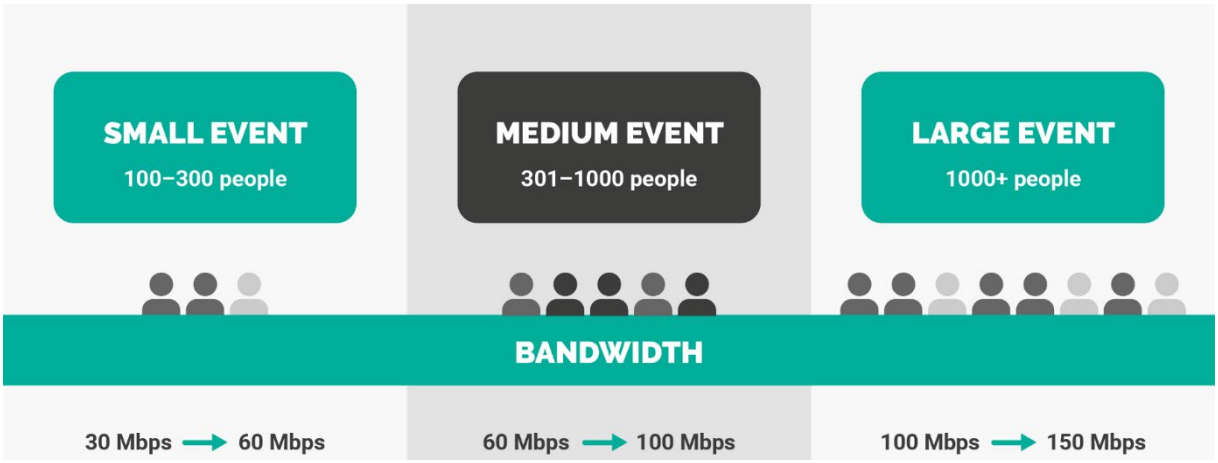


Diagram 50: Event Internet Access Guidelines (Tapfuse, 2019)



© TapFuse (https://medium.com/talking-event-tech/how-to-avoid-wireless-connection-problems-at-your-next-event-667191aa46bc)

5.7.7 Evacuation Plan

a) Introduction

Emergency evacuation is the immediate movement of people away from the threat or actual occurrence of a hazard. Examples range from the small scale evacuation of a building due to a storm or fire to the large scale evacuation of a district because of a flood, bombardment or approaching weather system.

b) Category of evacuation

- Urgent evacuation: Caused by circumstances that pose an immediate threat to the life or safety of anyone in the venue;
- Would be in the case of a tornado warning, severe winds, torrential rain, or any confirmed danger to lives where it was decided that evacuation was the best course of action. Warning of weather related dangers would be provided to the command centre by the emergency radio network that would provide severity and estimated time of arrival at location;
- In the case of urgent evacuation, the attendees would be alerted by the P.A. system and mobile loud hailers; and
- Non-urgent evacuation: Caused by circumstances that pose a threat to crowd safety, however, the identified danger is not immediate.

c) Evacuation procedures

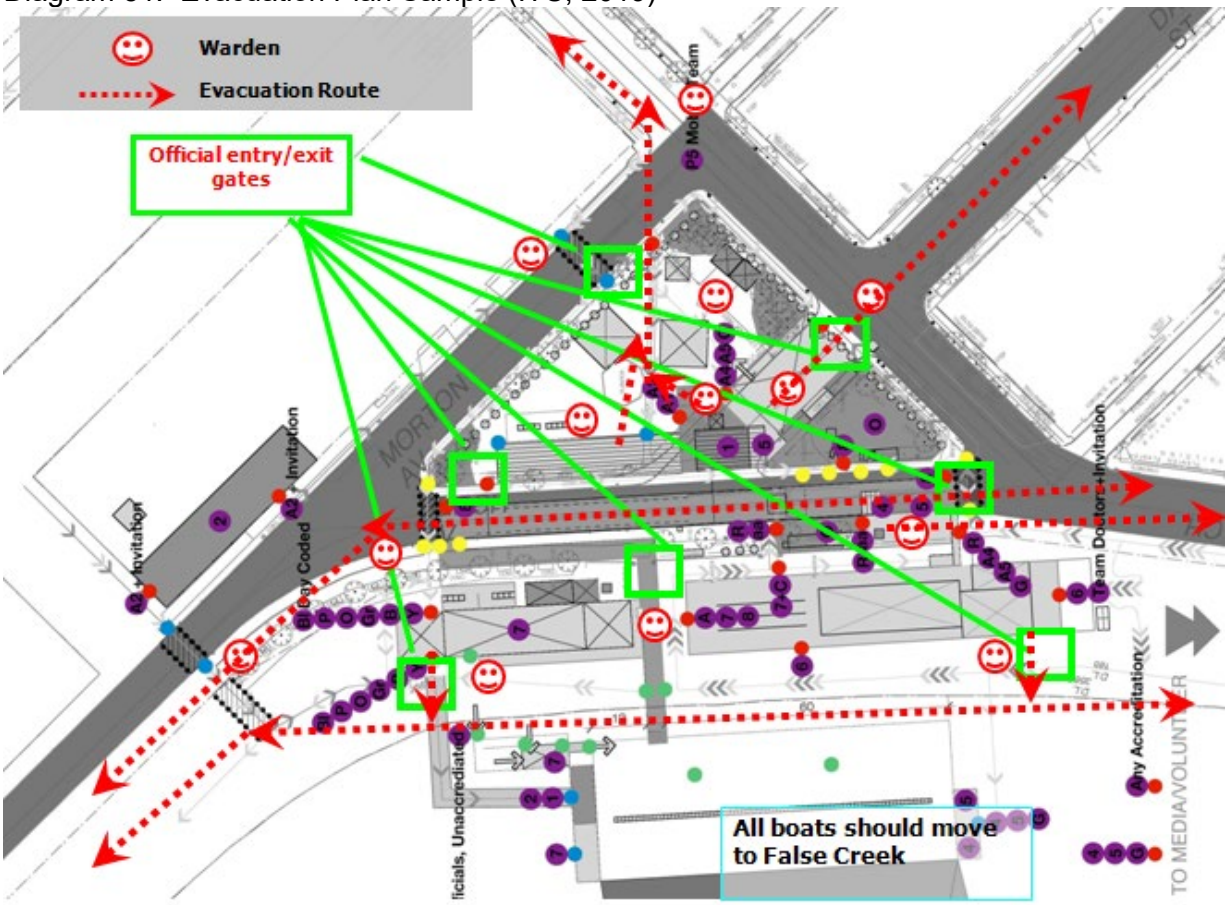
- These evacuation procedures could apply to the entire site or to one or more areas, depending on the situation. The evacuation plan will be implemented only as a final resort.
- The TD or senior police official shall be responsible for declaring an evacuation following consultation with the event and ITU Team Leader and ITU Media Delegate.
- The implementation of the evacuation plan will deploy manpower in the following way:
- The senior police officer will advise all police personnel on site to assist with immediate evacuation.
- Security personnel with loud hailers on golf carts will advise the attendees of an immediate evacuation.

- The city transit senior inspector will be informed of the immediate evacuation and asked to deploy transit equipment accordingly.
- The Triathlon volunteer coordinator will instruct all volunteer supervisors of the evacuation order.
- The Triathlon site captain will advise all commercial vendors and contract services of the evacuation order.
- Triathlon volunteers will direct pedestrian traffic to all entry/exit points at the venue.

d) Evacuation drawings

- Evacuation drawings should be available and posted in all the public spaces and the rooms/tents.
- The official gates/entrances should be marked.
- The evacuation routes and the locations of the wardens should be marked clearly.

Diagram 51: Evacuation Plan Sample (ITU, 2019)



6 Section 6: Event Support

6.1 Entries

6.1.1 General

a) Each race has its own page on www.triathlon.org. The password and username are sent to the LOC as soon as their event is confirmed.
b) ITU has implemented the ITU on line entry system to make the process easier for the NFs to enter athletes into the races.
c) Only the National Federations can enter the athletes.
d) Athletes who contact the LOC to enter the race will be directed to their national federation. No athlete will be included on the start list if the entry has not been processed through the ITU on line entry system.
e) The LOCs will be able to access the start and wait lists only by using the password.
f) Start lists will be released according to the qualification criteria of each event that can be found on the ITU website.
g) The event's timing company can get the start lists from the ITU system, by clicking on the download button and downloading the excel files. The timing company should not edit the names or the nationalities. If an athlete requests a change in their listed name, they should be referred to entries@triathlon.org.

6.2 Timing and Results

6.2.1 Overview

a) Timing and results services are the cornerstone of a successful ITU event. The following technical requirements are necessary for any timing company that wishes to provide basic timing and results services. Please note that it is the responsibility of the LOC timing company to completely fulfil these requirements.
b) The LOC must ensure that the proposed timing company for the event can meet these requirements. If there are any doubts, the LOC must contact ITU with questions before signing any contracts with the timing and results service provider. Please refer to the specific timing and results requirement of the specific level of ITU event here.

6.2.2 General Requirements

a) The LOC must select a partner – the service provider – to secure the required quality of basic timing and results service;
b) The service provider should work on a "near invisible" basis during the event, with an absolute minimum presence on the event course;
c) The service provider must be able to produce data displaying the results of the event, including each individual leg (swim –bike –run), and with multiple splits during each leg, where the course layout accommodates this;
d) Where possible, the timing systems must be hidden from media, TV and still photographers.
e) The service provider shall provide a web based platform for monitoring in real time the number of athletes that entered and exited the swim course. Athletes who haven't checked out within the Competition Rules time limits, need to be highlighted.
f) Results and start list samples can be found in the ITU Competition Rules.

6.2.3 Timing System- Requirements of the Transponder System

a) 100% capture rate at one metre;
b) Reliable - all times are captured without loss;

c) Ability to capture splits for each discipline, including multiple splits for each – swim (water exit), bike and run;
d) Attached to the athlete using an ankle band;
e) Attached to the athlete in a manner that does not influence the performance of the athlete.
f) Weight must be not more than 20 grams;
g) Deliver data live in real time to the timing and results software used by the service provider;
h) The timing mat must be able to work at variable widths between two to eight meters without obstacles on the course;
i) Timing of ITU events must be done with an ITU approved transponder system.

6.2.4 Use of Timing System

a) Timing systems should be installed to isolate each discipline (swim, transition one (T1), bike, transition two (T2) and run) and capture multiple spit times during each discipline (if athletes get lapped during the bike and the run) and provide backup lap counting on the bike and run segments.
b) Special provisions should be considered for the mixed relay events.
c) The timing mats should cover the whole width of the course to avoid any “bottle neck” situations.
d) The service provider must have direct connections to the timing locations;
e) Where direct connections are not possible, the service provider must aim at using internet based connection via DSL/GPRS/GSM (or similar mobile connection);
f) ITU emphasises the use of direct connections where the distance is less than 200 metres from the event venue timing and results base location;
g) The service provider must have live real time connections to timing locations to pull or retrieve data instantaneously;
h) All data must be delivered from the timing locations to the timing and results data-base in not less than 3 seconds after passing over the timing system;
i) The LOC and the timing provider should develop the event timing plan according to the table below. This plan needs to be approved by the TD.

Table 28: Timing Mat Locations (ITU, 2019)

Timing requirement		World Triathlon Series	World Cup Series	Continental Championships/ World Paratriathlon events/ Multisport WCH	Continental Cups
Transporter system (chip)		YES	YES	YES	YES
Installation of timing system at:	Swim lap	YES	YES	YES	to be discussed (tbd)
	Swim exit	YES	YES	YES	YES
	Mount line	YES	YES	YES	YES
	Dismount line	YES	YES	YES	YES

	Bike turn point or other intermediate point (AG)	YES	YES	YES	tbd
	Run turn point or other intermediate point	YES	YES	YES	tbd
	Relay zone mat	YES	n/a	YES	n/a
	Commentator information mat, 50m from the finish line	YES	YES	YES	tbd
	Finish line	YES	YES	YES	YES
Commentator information system		YES	YES	tbd	optional
Result print distribution		YES	YES	tbd	optional
Online timing & results Interface		YES	YES	YES	optional
ITU timing standard output		YES	optional	optional	optional
Manual back up		YES	YES	YES	YES
Broadcaster services/ TV graphics		YES	tbd	tbd	optional
ITU approved transporter system		YES	YES	YES	YES
Photo finish camera		YES	YES	YES	tbd
GPS application		optional	optional	optional	optional

TIPS

Manually transporting times via a USB stick or similar device is not allowed.

6.2.5 Software

a) The service provider must use a fully multi-user enabled database for data storage;
b) The service provider software must be able to receive data live in real time from the timing locations.

6.2.6 Event Venue Services

a) Physical printouts of all relevant data are required for the races;
b) The timing provider should provide a gantry finish clock capable of displaying the race time;
c) Printed results should be made available immediately to race officials, and following its review to the media.

6.2.7 Official Results Service

a) Official results should be made available in a timely manner in formats as specified by ITU including detailed race analysis in the ITU Competition Rules. Exports in various formats should be possible to relevant third parties (media, event officials, etc.). Any photo finish images (if applicable) should be available instantly for event officials, media and TV partners after approval of the ITU Head Referee;
b) Timing and results are preferably delivered via the automated API interface. This system delivers open live timing across platforms and results once approved.

c) The timing company must provide the results in the ITU database table for archiving on www.triathlon.org, via a pre-specified Excel spread sheet.
d) The timing company will be given this file from ITU before the event and the TD will ensure that the start lists are correct. The ITU Head Referee will sign off the results after each race to confirm them as official results;
e) The files once completed and verified should be emailed to the following email address: entries@triathlon.org

Results should be emailed no later than five minutes after the official results are confirmed.

f) The results lists have to be produced according to this format (please refer to the ITU Competition Rules:

Table 29: Timing results format (ITU, 2019)

Prog ID	AthleteID	RepCountry	AthleteLastName	AthleteFirstName	StartNumber	Swim	T1	Bike	T2	Run	Position	Total Time
14	84	POR	FERNANDES	Vanessa	3	0:20:23	0:01:27	1:08:23	0:00:23	0:34:17	1	2:04:51
14	250	AUS	LUXFORD	Annabel	1	0:19:59	0:01:26	1:08:47	0:00:18	0:35:36	2	2:06:04
14	263	AUS	SNOWSILL	Emma	2	0:20:08	0:01:29	1:08:39	0:00:24	0:35:33	3	2:06:11
14	29	GER	DITTMER	Anja	9	0:20:13	0:01:35	1:08:24	0:00:21	0:36:21	4	2:06:53
14	127	USA	BENNETT	Laura	8	0:20:04	0:01:28	1:08:40	0:00:19	0:37:34	5	2:08:02

-

The values in green are provided by ITU before the race. They should not be deleted or altered.
Note that columns A and B may be hidden. The timing company should be made aware of this.
Note: Times must be in the format hh:mm:ss
Note: Any blank or missing times must be represented with 00:00:00
Note: The files must be saved as a Microsoft Excel format file.

6.2.8 Photo Finish Camera Specifications

a) On a Continental Championship and on a World Cup level of events the LOC has to provide one photo finish camera.
b) On a World Triathlon Series level of event there has to be two photo finish cameras on both side of the finish gate.
c) The photo finish camera has to make minimum 1000 frame per second, minimum 1000 pixel high per frame.
d) The software of the photo finish camera has to allow the evaluation of the recorded pictures, even when the camera is still recording the rest of the athletes' field.

e) On a World Triathlon Series event the software has to be able to export pictures toward the TV graphics using a shared folder on a LAN network in bmp/jpg/png format.
f) The photo finish camera has to record the pictures on the white finish line located in front of the finish gate.
g) Details on how to mount the camera onto the finish gantry can be found on Section 4.13.3.a.
h) The finish tape holders has to stay a step before the white line to avoid blocking the camera view by their body.

6.2.9 Manual Back-up

The timing company has to prepare a manual backup to cover the contingency of missed data because of chips lost during the competition. Furthermore, in the event of catastrophic and unavoidable failure of the timing systems, the timing company should have a manual back-up system to provide accurate finish times and position data.

6.2.10 Paratriathlon Results – Specific Information

a) Each year, ITU Sport Department, is introducing a briefing document around the Timing and Results of Paratriathlon events according to the latest ITU Competition Rules. Please refer to your Technical Delegate from more information.

b) Timing chips to be used
All Paratriathletes should use 2 timing chips.

Medal Event (according to the 2019 Classification rules)	Qty. of chips	Where to wear
PTWC	2	1 on the handbike (rear) 1 on the wheel chair (close to the front fork)
PTS2	2	• Double amputees: Bike prosthesis + run prosthesis • Single amputees: Existing ankle + run prosthesis • Non-amputees: Both ankles
PTS3	2	
PTS4	2	
PTS5	2	
PTVI	2	Athlete ankle Guide ankle

c) Officials dedicated to control/help the chips placement
By the race packages delivery, a dedicated official will inform the athletes about the correct placement of the chips according to the athlete's condition.
d) Before the race inside the transition area a technical official will inform, help and control the correct use of the timing chips. All the chips provided have to be used.
e) Timing mats position
- Swim exit
- Transition in
- Transition out
- Bike control (at least one different from Transition in and Transition out)
- Run control (at least one different from Transition in and Transition out)
- Finish

Additionally, a pre-start control and pre-finish spotter may be placed.
f) Additional backup timing.
It is necessary to have an extra timing team by the swim exit to record the time of the athletes not wearing timing chip (all PTWC and the double amputees). This team will do the back-up for the rest of the athletes. Manual stop watches, plus number manual record and videotape are mandatory. Even wearing a chip on the ankle, the athletes who are being carried by handlers may be not registered by the mats.

6.3 Medical Services

6.3.1 General

a) The ITU Medical Committee may appoint a medical delegate to oversee the medical operations of the event.
b) The Medical Delegate (MD) may conduct one site visit prior to an ITU event.
c) The Medical Delegate will liaise with the event appointed Race Medical Director (RMD). The Medical Delegate reviews, with the Race Medical Director, all the information relating to medical and anti-doping control requirements for the event.
d) Please check regularly the medical section of the ITU website for updates

6.3.2 Medical Plan

The LOCs should submit to the TD and to the Medical Delegate if applicable, no later than one month before their event a full competition medical plan. This document should include:

a) Onsite medical services (facilities, equipment, and supplies);
b) Offsite medical services (facilities, equipment, and supplies);
c) Medical coverage per discipline;
d) Paratriathlon special services (if applicable);
e) Staffing, contact details and scheduling;
f) Ambulance distribution and medical response maps;
g) Communication plan;
h) Operational plan and procedures;
i) Team doctors Information and registration forms;
j) Athletes' waivers;
k) Budget;
l) In addition, the plan must include provisions for spectators.

A minimum medical coverage should be provided during the course familiarisations and following the competitions if athletes are remaining at the doping control station.

Please be aware that the LOC is not only responsible to treat the athletes but any other member of the team delegation as well.

6.3.3 Personnel

a) The LOC will appoint a Race Medical Director (RMD). The RMD is responsible for the overall medical operations of the event, and should preferably have experience in major sport/endurance events. The RMD is responsible for informing the Medical Delegate (MD) and TD about the medical organisation of the event;
b) The RMD appoints other medical staff; organizes the facilities in cooperation with the LOC; and organises supplies and equipment;
c) The LOC with the TD and MD should clarify the descriptions of the following positions as they differ from one country to another: Doctors/Physician, Nurse, and Paramedics. For ITU the understanding of the above personnel is as follows:
   - Doctors/Physician: a person who is qualified to treat people who are ill
   - Nurse: assist the doctors in the emergency room and they have less autonomy, depending of the different rules of the countries
   - Paramedics: health care professional trained and certified to perform advanced life support and to lead the rescue team, performing CPR.
d) Two doctors must be present and on duty for the entire event and can reduced to one doctor for a continental cup. An additional doctor is required in case of an Age Group event. At least one doctor should be located within the medical facility for the whole duration of the event;
e) Two paramedics per 500 athletes, with a minimum of four are required. Paramedics are not considered to be located at the medical tent;
f) There should be two nurses per 500 athletes, with a minimum of four nurses located at the medical tent at the finish line;
g) Any accredited LOC/ITU medical staff have the authority to withdraw an athlete at any point for safety or health reasons;
h) Doctors/physicians, nurses and paramedics must be clearly identifiable and have the authority to enter the field of play in the event of medical emergencies;
i) The LOC must establish a communication system for identifying and reporting any medical incident on any part of the course,;
j) Paramedics and stretchers must be in attendance adjacent to the swim exit, transition area and at the finish area;
k) The LOC must ensure that all marshals and other race officials are aware of all medical facilities and their locations;
l) CPR training should take place prior to race day for all marshals and race officials on the FOP.

6.3.4 Mobile Paramedic

a) A mobile paramedic is located at the back of a motorbike with emergency medical equipment and portable CPR device who can swiftly be dispatched on the site of an accident.
b) At least one mobile paramedic is required but two would be more suitable to ensure the medical cover is adequate in case the first mobile paramedic is already engaged in an incident.
c) A mobile paramedic must be in direct radio communication with the medical staff in the command centre of the event.
d) In case of an accident the mobile paramedic is sent to the location of the incident to provide first medical assistance to the athletes and to decide/confirm the engagement of ambulances.
e) The mobile paramedics are engaged as follows depending on the format of the bike course:

- point-to-point segment: it is recommended to have 2 mobile paramedics following the last athlete. If needed one of them can stop to provide first medical assistance to an athlete while the second one continues to follow the athletes. When reaching the junction with the traditional lap (if applicable), the mobile paramedics can stop at the junction or join a more central waiting area where they will remain on duty for possible engagement. For middle/long distance, it is recommended to have one mobile paramedic following the last athlete and one mobile paramedic in at an average distance between the lead and the last athletes.
- lap course: one mobile paramedic is following the pack, the other is located at a fixed location. If good weather conditions, the one following the pack does a couple of laps and then takes a fixed location. In case of bad weather (wet conditions), it continues to follow the pack during the whole event. Alternative, paramedics on bicycles can be considered (instead of motorbikes) depending on the course layout.

6.3.5 Ambulances and Access

a) A minimum of two ambulances will be required: one ambulance will be stationed near the finish area and the medical facility; the other one will be stationed strategically on the bike course. The final number should be approved by the MD or TD. If one ambulance is dispatched to the hospital it has to be replaced by a new one;
b) Ambulances will be equipped with the following: direct communication with medical headquarters and direct communication with all necessary cardiopulmonary resuscitation supplies and trained personnel;
c) Ambulance emergency access routes must be planned both from the competition site and the FOP.

6.3.6 FOP Medical Stations

Depending on the length of the course/ lap and the weather conditions it may be necessary to establish a number of medical stations along the course. These stations are additional to the ambulance that have been allocated. A minimum of one paramedic personnel should be allocated at each of the stations along with a tent/ vehicle providing shelter to the athlete. Any additional equipment should be decided according to the event and the weather conditions.

6.3.6.1 Winter Triathlon - Cross Triathlon/Duathlon Medical plan – Specific Information

a) Due to the remote nature of the courses, special considerations should be given to athletes in case of medical emergencies. The LOC should identify
   - vehicle access roads around the courses: a minimum of one access road every 2km;
   - helicopter landing areas: a minimum of 2 landing areas within 10 km of course.
b) The medical team should have access to gators/quad bikes/4WD vehicles/ snowmobiles.

6.3.7 Hospitals

The nearest hospital must be informed of the event well in advance and advised of the possible emergencies that may arise.

6.3.8 Medical Records

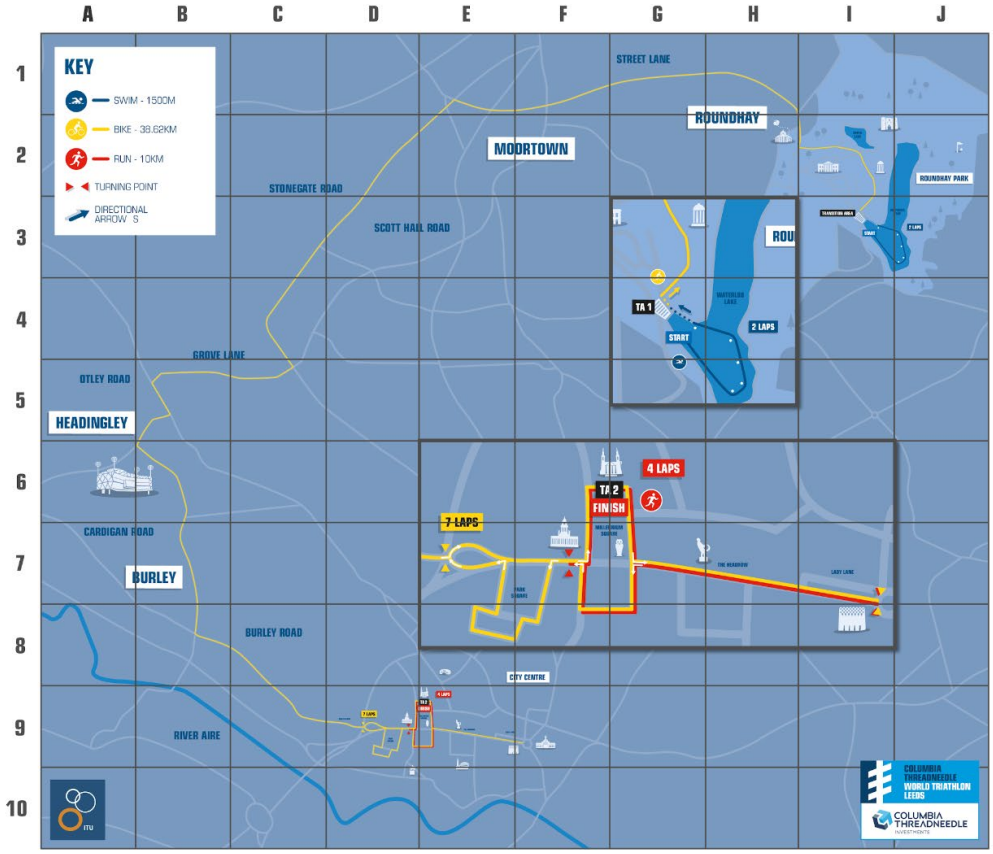
a) Accurate and complete medical records must be kept on all medical instances. Those records must be submitted to the Medical Delegate or TD.
b) The records must be shredded after the events to protect the privacy laws in place in each jurisdiction.

6.3.9 Race Medical Management

a) Main principles for an effective race medical management – Grid maps:

- Split the course in sectors to have the same communication codes used by the TOs, medical staff and LOC;
- Use a grid map for improving the communication among the different teams;
- The international radio alphabet should be used to spell the letters used in the grid map. Please make sure that the code of the letter used is printed on the grip map (Alfa, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, Hotel, India, Juliet, Kilo, Lima, Mike, November, Oscar, Papa, Quebec, Romeo, Sierra, Tango, Uniform, Victor, Whiskey, X-ray, Yankee, Zulu)
- Depending on the distance of the event, both bike and run courses may not fit on same maps;
- If the bike and run courses are on different grid maps, use different lettering to avoid confusion;
- Long Distance: The bike and run courses should have different grid maps. The lettering system of the grip map should be replaced by km markers for the bike course.
- Cross Triathlon/ Duathlon: The lettering system of the grip map should be replaced by the volunteer positions

Picture 92: Grid Map Sample (Leeds ITU WTS, 2017)



A – Alpha	J – Juliet	S – Sierra
B – Bravo	K – Kilo	T – Tango
C – Charlie	L – Lima	U – Uniform
D – Delta	M– Mike	V – Victor
E – Echo	N – November	W– Whiskey
F – Foxtrot	O – Oscar	X – X-ray
G – Golf	P – Papa	Y – Yankee
H – Hotel	Q – Quebec	Z – Zulu
I – India	R – Romeo	

- Place the ambulances at the most dangerous points;
- Make sure that an ambulance can reach the entire course using the minimum field of play;
- Allocate a number to the dangerous corners for effective communication;
- Make sure that there will be a number of paramedic bikes for an effective response to the accidents;
- The volunteers who are within 100m of the accident should give warning signals to the approaching athletes;
- Report to the VCC immediately;
- Inform the TD and the medical services;
- The ambulance should enter from the nearest intersection and park close to the side of the road. The volunteers should continue to inform the other athletes;

- The ambulance should exit from the nearest crossing point. The ambulance should move on the FOP according to the athletes' flows; and
- When there is a need for a simple transport of a patient, from the spot of the incident to the venue, then the ambulance will follow the course to the athletes' area. In case of an accident involving many athletes during the bike course, we should ensure the athletes' well-being first. The actual facility is arranged prior to the event by the Medical Delegate or TD.

6.3.10 Medical Area Supplies

a) The specifications of the Medical Areas can be found in the Venue operations section
b) Supplies
   - CPR;
   - Medication for acute cardiac care, asthma, allergy;
   - ECG machine 12 leads;
   - Defibrillator;
   - Blood glucose monitoring equipment;
   - Sodium level analysers;
   - O2;
   - Thermometers and rectal thermometers;
   - I.V. fluids (NS or 5% dextrose in NS, 3% Nacl);
   - Ice, Ice buckets, ice water tubs;
   - Blankets;
   - Towels;
   - Dressing material wound care;
   - Hospital to be notified;
   - Medical emergency vehicles on site and on course with planned access routes
   - Bikes for mobile medical spotters;
   - Medical Records (all medical treatments must be recorded and stores for records); and
   - LOC must ensure that all athletes sign the medical waiver and report any allergies or medications that are being taken.

6.3.11 Exceptional Heat Illness Prevention

a) Minimizing exertional heat illness in triathlon:
   - The incidence of exertional heat stroke (EHS) varies from event to event and increases with rising ambient temperature and relative humidity.
     - Event should be scheduled to avoid extremely hot and humid months, based on the historical local weather data.
     - During summer months all events should be scheduling during the cooler hours of the days (early morning or late afternoon).
   - The LOC and the Medical Staff must provide the following in any case:
     - Tent with fans and air conditioned;
     - Tents, awnings, umbrellas, etc;
     - Water (1 liter / 4 athletes);
     - Sports drink cooled;
     - Towels immersed in ice water;
     - Ice (1kg / 4 athletes);
     - Ice buckets, ice water tubes, inflatable bath with water and ice;
     - IV fluids (NS or 5% dextrose in NS, 3% Nacl);

- Improve the aid/drink stations numbers during the run course. The distance between the run course aid stations should be a maximum of 1.25 km unless otherwise ruled by the TD and considering the number of laps in the run course;
- Trained medical personnel should be positioned every 500m on the run course.

- The TD and the Medical delegate must work with the Race Medical Doctor (RMD) and the LOC to ensure that during competitions, adequate shelters (tent, awnings, umbrellas, etc) are provided for athletes and officials in the field where prolonged exposure is likely to occur.
- Practice and competitions could be modified on the basis of air temperature, relative humidity, sun exposure, heat acclimatization status, age and equipment requirements by decreasing the duration and intensity of exercise.
- The risk of heat related illness is greatest when high-environmental temperatures occur early in the competitive season when participants may be inadequately prepared and have not yet acquired natural acclimatization to heat. EHS also can occur with other temporary factors like viral illness or medications.

b) Monitoring the environment:

- The LOC shall work with local meteorology sources to provide statistical information on prior weather patterns, in order to assist competition organizers in developing the competition schedule. Event organizers should monitor the weather conditions before and during practice and competition. Factors that affect heat illness risk include ambient temperature, relative humidity, wind speed and solar radiant heat.
- Environmental heat stress can most reliably be estimated by using the wet bulb globe temperature (WBGT) index. The WBGT is an index of environmental heat stress and is used to estimate the risk of heat related illness. Variables measured are ambient heat, humidity and radiant heat stress from direct sunlight. The measuring device is commercially available and when WBGT is not available on site the race organizers can obtain WGBT readings from their local weather service during hot weather months or with standardized algorithms or charts to estimate heat risk. It's important to know that the local weather reports are taken in the shade, not in direct sunlight and this can therefore underestimate the radiant heat from the sun.
- WBGT is a standardized method to determine environmental heat stress that does not take in account individual characteristics and responses, heat acclimation or lack of acclimation. The WGBT in an environmental heat stress index and not a representation of human heat strain. The WBGT might underestimate heat stress when sweat evaporation is restricted (i.e high humidity) and does not account for metabolic heat production.
- All the measurements with the WBGT tool should be taken at the finish area.

Picture 93: WBGT Tool (ITU, 2019)

- Quick guide for additional arrangements to prepare for extreme cold and warm weather conditions.

Table 30: Extreme Weather Conditions Guide (ITU, 2019)

Warm	Cold
Cold water and ice at the aid stations and athletes' lounge	Provide blankets in each of the boats, at the post-finish area and in designated areas on the bike and the run course
Increase number of medical personnel and spotters	Increase number of medical personnel and spotters
Provide shade	Limit the athletes' exposure time to these conditions
Provide fans in the athletes' lounge and at the post-finish area	Provide heaters in the athletes' lounge and at the post-finish area
Ice baths in recovery	TD to allow the use of jackets / warmers during the race
Provide showers on the FOP	Provide hot drinks in the recovery area
Increase the number of aid stations	Provide medical/heating stations on the bike course
Increase number of medical personnel and spotters	Increase number of medical personnel and spotters

c) Activity modification in high-risk weather conditions:

- Using the WGBT index to assess on-site environmental heat stress at regular intervals and the appropriate announcement of its readings is an important starting point to decrease the incidence of heat related illness.
- If WBGT index is between 27.9°C - 30°C and 30.1°C - 32.2°C the EHS risk for unfit, nonacclimatized individual is high / very high. Caution should be taken and athletes should be advised of the danger and to increase their normal fluid intake, limiting intense competition between 30.1°C - 32.2°C WGBT index.

- If WBGT index is above 32.2°C the level for EHS risk is cancelled and uncompensable heat stress exist for all athletes.
- Difference of local climate and individual heat acclimatization status may allow activity at higher levels than outlined above in acclimatized fit and elite athletes.
- The ITU TD and Medical Delegate, the RMD and the LOC should work together to monitor weather conditions and a specific contingency plan should be implemented to consider the scenario of extreme meteorological situations that could force to modify (reducing race length), to rescheduling the event until less stressful conditions prevail, or even cancel the competition.
- In case the decision must be taken considering also the level of medical assistance, the facilities in the medical tent, the evolution of the weather conditions following the forecast, the period of competitive season, the race distance, and the category, fitness and age of the athletes. Event organizers should pay particular attention to the mass participation event in case of unexpected or unseasonably hot weather considering that the unacclimated participants or the participants without a sufficient level of training are at higher risk for heat illness.
- In general better performance and less adverse results are obtained when the environmental conditions are going to improve, rather than worsen, during the event.
- During the ITU WTS and World Cup races weather information and the WBGT index should be provided at the Sport Information Center and at the athletes' lounge. The information should be posted by the time that the athletes' lounge is open for the athletes' check in. The WBGT index is converted in a coloured flag system to visually signal the heat illness risk of current weather conditions to athletes in five levels. The information can be delivered in a form of written announcement (sample below).

Picture 94: Heat Stress Warning Flags (ITU, 2019)

- Wet-bulb globe temperature (WBGT) levels for modification or cancelation of workouts or competition for healthy adults based on the American College of Sports Medicine (2007).

Table 31: Risk Categories in Wet Bulb Globe Temperatures Readings (ITU, 2019)

Risk Categories in Wet Bulb Globe Temperatures Readings.			**Recommendations**	
Flag colour	**WBGT Heat index**	**Risk**	**Acclimatized, fit, low-risk triathletes**	**Non-acclimatized, unfit, high-risk individuals**
Black	> 32.2°C	Extreme	Cancel competition as uncompensable heat stress exists for all athletes	Cancel competition
Red	30.1°C – 32.2°C	Very High	Limit intense competition and total daily exposure to heat and humidity. Watch for early signs and symptoms	Cancel competition
Orange	27.9°C – 30.0°C	High	Plan competition with discretion, watch at-risk individuals carefully	Limit intense competition. Watch at-risk individuals carefully
Yellow	25.7°C – 27.8°C	Moderate	Normal activity monitor fluid intake	Plan races with discretion, watch at-risk individuals carefully
Green	< 25.7°C	Low	Normal activity monitor fluid intake	Normal activity monitor fluid intake

- Considering that the ITU has the upper water temperature limits for cancelling the swim, the cycling and running leg require the most attention with regards to heat illness. Although cycling may provide greater air flow and possibly a greater potential for heat loss than running, athletes may be at risk of exertional heat illness based on the environmental conditions, but also the race tactics and course geography. When running at a high intensity a large amount of metabolic energy is released at heat. With a decrease in heat loss capacity relative to cycling, the run leg of the triathlon should be considered the section of the race in which heat illness has the highest likelihood to occur.
- In case of Very High Risk (WGBT index 30.1°C - 32.2°C Red Flag) based on these considerations we recommend for the Standard distance events and belows:
  - the run distance must be shortened to 5 km in all the competitions. The run distance remain the same in Sprint distance triathlon and mixed relay.
  - if the LOC and the Medical Staff are not able to provide the medical assistance respecting all the rules of ITU Event Organizer Manual Medical Services and the Exertional Heat Illness Prevention, particularly in the large mass participation event the competition must be cancelled or rescheduled.
- In case of Extreme Risk (WGBT index > 32.2°C Black Flag) the competition must be cancelled.

d) The upper water temperature limit:
- The IOC/FINA/ITU research "Thermal stress in open water swimming: establishing competition parameters for athlete safety" concluded that because no intolerance or unusually high exercising core temperature were observed in maximal effort swims in lab test at 30°C - 32°C water T° such temperature are to be considered safe.
- Considering the potential variability in physiological responses to thermal stress exists between swimmers subjected to lab test versus the race environment the research suggests a more conservative upper limit water T° of 31°C (87.8°F), because swimming in open-water competition might produce higher core temperature than is produced in lab trials. Between 31°C and 31.9°C the swim distance is shortened to 750m, and between 32°C and 32.9°C the swim is allowed only up to 300m for the mixed relay triathlon.

e) Return to competition after heat illness:
- Athletes who have a significant heat related illness appear to be at increased susceptibility for subsequent events. An athlete's return to sports depends on the severity of heat related illness and the clinical course of the recovery. In milder cases with rapid recovery, return to sports is recommended only after an evaluation of potential risk factors, complete resolution of symptoms, and normalisation of all vital signs and laboratory tests. After treatment of the acute heat stroke event it has been suggested that an athlete wait at least 1 week to return to practice sports, with a gradual and closely monitored return to activity.
- Heat stroke is not necessarily caused by high environmental temperature per se, and is not predicted by any particular core temperature, which again puts the responsibility on the coach and athlete to be cognizant of their health status and make decisions appropriately.

6.4 Doping Control

6.4.1 General

a) It is the responsibility of the LOC to make sure that doping control is conducted at the event. The LOC should contact the proper sample collection agency and arrange for the appropriate number of tests to be conducted. The exact number of tests needed will be stated in the event's agreement and/or the LOC requirements.
b) ITU complies with the World Anti-Doping Code (WADC) on all anti-doping rules and regulations (See ITU website for all current information on doping control and the ITU Anti-doping Rules). All tests should be conducted using best practices of all international standards and according to the World Anti-doping Agency (WADA).
c) The results of all tests and the doping control forms should be forwarded to ITU as soon as possible. The sample collection agency must enter the doping control forms into ADAMS, WADA's online data system, within seven days of the event with the originals being sent to ITU.
d) Proper provisions must be made to accommodate doping control at the event. This will include at a minimum private waiting areas, secure washroom facilities, processing rooms and bottled water. All facilities at Paratriathlon events must be suitable for Paratriathlon athletes. The specific requirements can be found in the venue operations section.

6.4.2 Personnel

The sample collection agency must bring an appropriate number of doping control officers (and blood control officers, if collecting blood) for the number of samples being collected or

else the process will take too long. The sample collection agency will require volunteer LOC doping control chaperones. The exact number of chaperones will depend on the number of tests being completed and the event schedule. Both male and female chaperones who are over the age of 19 will be needed. They should have a good command of English and the host country language. In some countries, the national federation may have certain obligations to the national anti-doping agency, please check with your NF on this issue.

6.4.3 Doping Control

a) The LOC of each ITU event must have provisions for a number of in-competition urine tests. The exact number and who will be tested will be communicated to the TD by ITU and/or the anti-doping organisation conducting the tests. For events higher than a continental cup, ITU will create the mission order in ADAMS which will state the test distribution plan and which the sample collection agency can access.
b) Please refer to the LOC requirement document and the event's agreement of the specific event for the exact number of tests and what substances need to be tested for in the samples.
c) The LOC must use a WADA approved sample collection agency. If you are unsure, please contact the ITU Anti-Doping Director for an approved agency in your area.
d) Once confirmed and at least one month prior to the event, please inform the ITU Anti-Doping Director which sample collection agency will be used and which laboratory the tests will be sent to so that this information can be included in the mission order.

6.4.4 Athlete Notification

a) The procedures on athlete notification can be found in the FOP operations section; and
b) If a notified athlete has to be transferred to the hospital for medical reasons after a decision of the MD and the RMD, the Doping Control Officer in charge can choose to excuse them from doping control. However, it is not automatic. If this athlete is excused then another athlete may be chosen.

6.5 Environmental Data

6.5.1 Weather Forecast

a) The LOC should have an agreement with the local weather services agency to receive continuous updates on:
   - Weather conditions;
   - Air temperature;
   - Expected measurable rainfall;
   - Humidity;
   - Wind direction and wind speed; and
   - Carbon Monoxide (ppm) (if possible)
b) Alerts should be issued in the cases that one of the above parameters is expected to reach a high level.;
c) Lightning can be an immediate threat to the athletes. If lightning strikes are approaching the venue and are within 8 miles/ 13 km the race should be stopped, the venue should be evacuated and the athletes should be taken to a safe area.

6.5.2 Wind Action Plan

Events that use additional equipment or temporary buildings are very susceptible to increased wind loads and, conversely, the impact on public and worker safety may be greater than for the event activity programme. A wind action plan is a set strategy on

how to handle certain wind-speed actions during an event. An example of this could be that an engineer has determined that all fabrics must begin to be taken down from a temporary structure once wind-speed has hit 30 miles per hour.

Before the event begins, the wind action plan should be discussed with all team members and relevant suppliers involved. This way, wind limits on sensitive elements can be established and then just how long each procedure will take and a timeline can be drawn up. Then if a severe storm does begin to make its way towards your venue, each component of the wind action plan can be completed in a timely manner, well before the storm hits. Damaging winds can, of course, occur at any time of year.

Plans such as this help to ensure, not only that the event goes off without a hitch, but also that your guests are safe from the bending, twisting or collapsing of any loose structures or flying debris.

It will be important to remember that it is not only ‘structures’ that are affected by winds; many other event related elements such as temporary barriers, especially those with any type of scrim or branding, flags, signs, inflatables and the like and other considerations such as ventilation of static plant and work at height may also need to be considered as a part of any overall wind action plan. The effect on guests, local vegetation, dry soils and artistic/sporting elements may also need to be considered for contingency planning in some cases.

Forecasts should be obtained from the Met Office or other reputable sources in advance of the event where inclement conditions are forecast.

A suitable calibrated anemometer clearly showing the units of measurement should be available on site.

It is vital that the units of measurement on anemometers and in all instructions are clearly defined and the correct units used in decision making – see next section for comparisons of common units.

Wind Speed Descriptors

The table below sets out visual indicators of wind speeds and their relative values in several units. Based on BRE Digest 520.

Table 32: Visual Indicators of wind speeds (Google, 2019)

Beaufort Scale	Description	Specification on land	Speed			
			knots	m/s	km/h	mph
0	Calm	Smoke rises vertically.	Less than 1	0 - 0.2	Less than 1	0 – 0.5
1	Light Air	Direction of wind shown by smoke drift but not by wind vanes.	1 - 3	0.3 - 1.5	1 - 5	0.7 – 3.4
2	Light breeze	Wind felt on face, leaves rustle, ordinary wind vane moved by wind.	4 - 6	1.6 - 3.3	6 - 11	3.6 – 7.4
3	Gentle breeze	Leaves and small twigs in constant motion, wind extends light flag.	7 - 10	3.4 - 5.4	12 - 19	7.6 – 12.1
4	Moderate breeze	Wind raises dust and loose paper, small branches move, wind disturbs hair and clothing.	11 - 16	5.5 – 7.9	20 -29	12.3 – 17.7
5	Fresh breeze	Small trees in leaf start to sway, crested wavelets on inland waters. Limit of agreeable wind on land	17 - 21	8.0 - 10.7	30 - 39	17.9 – 24.0
6	Strong breeze	Large branches in motion, whistling in telegraph wires, umbrellas used with difficulty. Force of wind felt on body, frequent blinking	22 - 27	10.8 – 13.8	40 - 50	24.2 – 30.9
7	Near gale	Whole trees in motion, inconvenient to walk against wind.	28 - 33	13.9 – 17.1	51 - 61	31.1. – 38.3
8	Gale	Twigs break from trees, difficult to walk, difficult to control walking or balance.	34 - 40	17.2 – 20.7	62 - 74	38.5 – 46.4
9	Strong gale	Slight structural damage occurs, chimney pots and slates removed. Strong risk of being blown over	41 - 47	20.8 – 24.4	75 - 87	46.6 – 54.7
10	Storm	Trees uprooted, considerable structural damage occurs. Seldom experienced inland	48 - 55	24.5 – 28.4	88 - 101	54.9 – 63.6
11	Violent storm	Widespread damage, very rarely experienced	56 - 63	28.5 – 32.2	102 - 117	63.8 – 72.1
12	Hurricane	Widespread devastation.	>64	>32.3	>119	>72.4

A Wind Management Plan, as part of the contingency planning arrangements for the event may need to include:

- Processes for obtaining detailed wind speed forecasts for the location;
- Details of maximum wind loadings for each structure on site;
- On site wind speed monitoring and recording of data;
  - An action plan for pre-determined wind speed thresholds
  - Securing loose furniture;

- Lowering temporary signage and branding;
- Reducing wind load upon structures;
- Closing parts of the venue – e.g. marquees or temporary stands;
- Ability of external partners and stakeholders to respond to incidents within the venue;
- Revised traffic management plan if access routes are impacted;
- Arrangements for the abandonment, postponement, cancellation or delayed start of the event – including management of public, event/venue staff, event officials, participants, governing bodies, media etc.;

- Inspection regime after winds have subsided;
- Recovery action plan to respond to any damage caused by wind:
  - On the day - delayed start
  - When there has been an abandonment, postponement or cancellation.

6.5.2.1 Action Levels

The following action levels will be assumed generally:

Action Level	Wind Speed m/s	Monitoring Interval	Actions
0	<10	2-3 hours	Review forecasts
1	<12	hourly	Regular on site assessment of infrastructure
2	<15	15 minutes	Site Safety meeting and risk assessment of infrastructure. Prepare to stop activities and evacuate
3	>15	constant	Specific stop procedures invoked including evacuations and making safe

a) Action items in general site areas
- When wind speeds are forecast to exceed Beaufort scale 3, the LOC must undertake a review of the scrimmed fences, signage, loose furniture, debris and other items that can be affected. Appropriate measures have to be taken to reduce the impact of the forecast winds;
- If significant winds are forecast, and it is not possible to place additional bracing to the fences, scrims must be removed;
- Any work in progress, especially work at height, may need to be temporary suspended;
- Proper communication message should be released to the public.

b) Action plan – temporary structures/plant

Alert and action wind speeds for designed structures:

Structure	Level 1 Alert	Level 2	Level 3
Branded barriers/Heras/ Loose items – ref Para 5.2	6m/s 13mph Beaufort 3	8 m/s 18mph Beaufort 4	12 m/s 27mph Beaufort 5
All Frame Tents inc VIP	30 m/s Beaufort 6	40 m/s Beaufort 8	50 m/s Beaufort 9
Pop-ups	8 m/s Beaufort 5	11 m/s Beaufort 5-6	14 m/s Beaufort 6-7
Finish line Gantry	12 m/s Beaufort 6	15 m/s Beaufort 7	21 m/s Beaufort 8
Inflatable arches	10 m/s 22.4 mph	12 m/s 27 mph	13.9 m/s 31mph
Inflatable structures at Expo	8 m/s 18mph	10 m/s 22.4mph	12 m/s 27 mph

- Level 1 Alert

When the gust wind speed is more than the values stated above, the LOC, should be put on alert that actions may be required if conditions deteriorate.

- Level 2 Alert

When the gust wind speed is more than the values stated above, the LOC, should be put on alert that actions may be required if conditions deteriorate. During venue setup, it may worth considering the delay of further installation/ work at height. It may become necessary for raised screens to be lowered and inflatables should be clear of public.

- Level 3 Alert

When the gust wind speed is more than the values stated above, the LOC, should be put on alert that actions may be required if conditions deteriorate. The LOC:

  - Shall de-rig the screen entirely if safe to do so.
  - Shall deflate and secure inflatables.
  - Shall clear of the public from marquees and their immediate environment
  - Shall call a Safety meeting for deciding further actions.

6.5.3 Air Pollution

a) Air pollution is a fact that exists. High levels of air pollution can reduce endurance activities, may be strong irritations and increase symptoms and may trigger other ill-nesses.

b) Air pollution should be taken into consideration when an event is taking place. The TD with the RMD and the MD (if present) can decide on modifying the race (time, distance) if there are concerns of the athletes' health.

c) In most of the countries, the local authorities are responsible to measure the air pollution index. Some countries are using different measuring scores, which need to be communicated to the TD in advance.

6.6 Race Communication Plan

6.6.1 Venue Communication Centre (VCC)

a) General
- The VCC is the most important element in the event management. This is an excellent tool for the coordination of all the different areas and the immediate response to all the potential problems;
- A person in charge needs to be appointed to operate the VCC;
- The 5 key talk channels (site, competition, technical official, security and medical) need to be monitored by base radios;
- A representative from police, ambulance and fire department should be in the VCC, especially in cases that the event is hosted in the centre of big cities.
- A representative from ITU should also be present in the VCC;
- The control room should coordinate the communication between the main talk channels and supervise any athletes' transportation to the hospital, evacuation procedures etc.;
- Should operate from a trailer and walled tent or other such housing that will be erected and clearly marked by signs;
- The centre will house the communication stations and the radio operators; and
- The specifications can be found in the venue operations section.

b) Access
- Access will be restricted to VCC staff, competition executive, TD, Chief Race Control Official and the various sector leaders; and
- Will be secure and off limits to the public.

c) Training
- At the pre-competition day orientation VCC staff will be available to talk with each of the groups regarding portable radio use and protocol. Portable radios will be on hand for demonstration purposes. This will be followed by a short question and answer period; and
- VCC staff should have the opportunity to become familiar with the Centre during the days prior to the competition.

d) VCC staffing and hours of operation
- Prior to competition day, and during set up, either the centre captain or assistant captain will staff the VCC. Staff will not be present during the night; however, site security should be in place;
- On competition days, the VCC will operate at maximum staffing levels;
- One volunteer from each of the following groups; COMPETITION, SECURITY, OFFICIALS, MEDICAL, SITE must be identified by the captains of the above-mentioned elements of the competition;
- Those volunteers will be made available for duties in the VCC on competition day; and
- Volunteer duties will include:
  - Monitoring their radio channel;
  - Transmitting and receiving messages via radio;
  - Distribution and retrieval of radios; and
  - Maintaining incident logs.

6.6.2 Radio Talk Groups

Nine radio talk groups may be utilised on competition day. Other support groups will use their own radio frequencies.

a) Technical officials talk group:
- A minimum of 12radios, earpieces and cases will be assigned to the TD and the officials. The final number will be determined by the TD;
- One radio will be retained in the VCC and used by the officials that are assigned to the centre for radio communications duties.

b) Executive talk group.
- Five portable radios and cases will be assigned to the LOC executive director, LOC director of operations, LOC director of venue operations, TD and TL. Those radios may be made available six days prior to the event. This group should be in contact with the VCC.

c) Medical talk group.
- A minimum of 10 portable radios should be assigned to the medical element of the competition as follows:
  - On course medical
  - Emergency Response Team (ERT/Ambulance);
  - Spectator medical;
  - Medical director;
  - VCC;

d) Competition talk group.
- A minimum of 10 portable radios will be assigned to the competition team.

e) Security talk group.
- A minimum of 5 portable radios and carrying cases are assigned to security.

f) Sport presentation talk group.
- A minimum of 3 portable radios and carrying cases will be assigned to the announcer talk group.

g) Media talk group.
- A minimum of 3 portable radios are assigned to the media relations function.

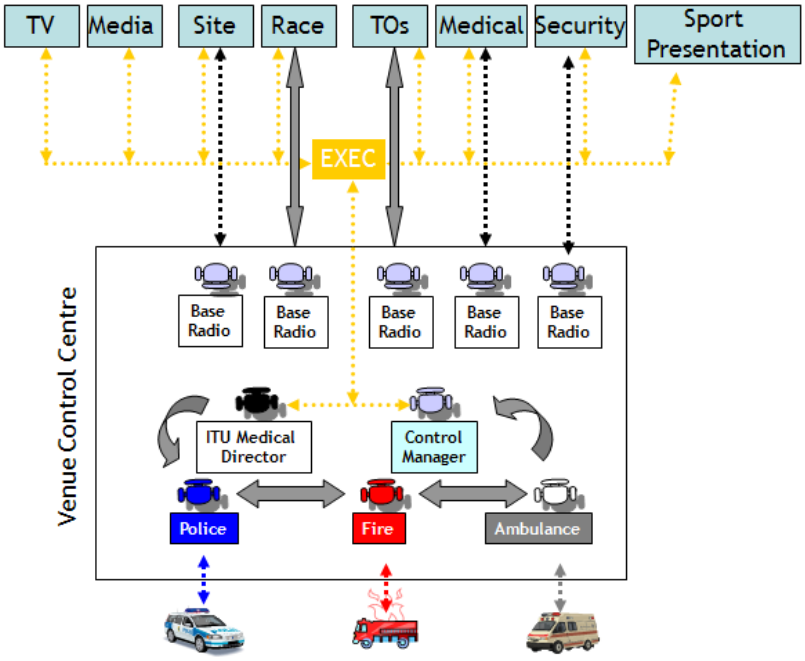
h) Television talk group
- A minimum of 3 portable radios are assigned to the TV production function.

i) Site talk group
- A minimum of 5 radios for the set-up and for the day of the event will be available; and
- At least one venue radio will be retained in the VCC.

j) Cellular phones:
- Cell phone use will be kept to a minimum;
- Only the race executive and others identified as essential users will be provided with cell phones;
- At the time of issuing the phones, a directory will be developed and circulated to the users. A copy will also be available at the VCC; and
- Communications with city transit and transportation and traffic police and hospital will be conducted via the cell phone kept in the VCC. Contact numbers for on-duty personnel will be displayed in a prominent location in the centre.

In cases where the radios don't have a wider coverage or there is a shortage on numbers, the use of the Apps like Zello or Blerter is recommended

Diagram 51: Venue Command Center (ITU, 2019)



6.6.3 Radio Distribution and Retrieval

a) During the training sessions, race captains will be provided with radio sign-out sheets and course/stadium maps. The captains will complete the sign-out sheets by writing the names (in the spaces provided) of their volunteers who will be equipped with a radio.
b) Additionally, the captains will plot the positions of the radio operators on the course maps. The completed course maps and sign-out sheets must be returned to the VCC captain on completion of the races.
c) On the morning of the races, volunteers will report to the VCC where their portable radios will be ready for pick-up at the appropriate workstations. The volunteers will be required to sign for the receipt of their portable radio.
d) At the end of the day's events, the various captains will ensure that all portable radios are returned to the VCC and signed in.
e) Communications staff will ensure all radios are present and VCC staff will be responsible for the final inventory check and return of all radio equipment.

6.6.4 Radio Protocol

The radios will be used by the **6-step** radio process, which is defined below:

- **T**hink about what you want to say
- **L**isten for airwaves to be clear
- **P**ress the button (and hold)
- **B**reathe
- **S**peak
- **R**elease button

Table 33: Radio Process (ITU,2019)

Making and receiving a call	Their call sign x 2 + “this is” + Your call sign + “over” E.g. “Field 1, Field 1, this is Swim 1 over” (If no response, call again and say their call sign 3 times) still no response: “Nothing heard” + Your call sign + “out” Your call sign + “receiving” (E.g. “Field 1 receiving”) Statement followed by “over” End of conversation: “out”

If unavailable	Your call sign + “receiving” + “standby 5” + “out” If important: Their call sign x 2 + “this is” + Your call sign + “respond immediately”

Priority calls	Stay calm “Ops 1, Ops 1, this is” + Your call sign + “PRIORITY” Only priority calls should not be made, all staff on standby for instructions.

Emergencies	Fire/Other: Call VCC on your own talk group or VCC Base. Medical: FOP calls “Medical Field 1” for assistance.

6.7 Crisis Communication Plan

6.7.1 General – What is a Crisis?

A crisis is any situation which could threaten the reputation of the event, the International Triathlon Union (ITU), its stakeholders and the sport of triathlon. The most common crisis scenarios the event could potentially face are:

- Major failure of event delivery affecting significant numbers of competitors or spectators
- Event cancellations, totally or partially
- Doping violations
- Athlete, volunteer or spectator injury or death
- Water quality or weather-related issues
- Any incident involving the emergency services at the event

6.7.2 Actions

a) General

- Centralize all information and communication. Establish the spokesperson and channels and give them credibility.
- Spokesperson must have direct access to all three key stakeholders: City, LOC and ITU

- Provide the spokesperson with all the emergency courses of action: schedules, replies. Clear, short and informative messages. ONLY ONE AUTHORISED VOICE
- Inform the participants and spectators about the situation via social media and emails.
- Inform all the media and the public of the situation
- Get and respond to public/stakeholder feedback
- Empower the spokesperson with risk/benefit decision making
- ITU Media Delegate and LOC Communications person will get in touch two days before the race and make sure that they are connected by mobile and email so that they can reach each other immediately in case needed

b) Actions to be taken immediately after confirmation of a crisis situation

- Incoming media inquiries:
  - All media enquiries will be answered directly by the LOC Communication's Director, agreed and approved by the ITU Media Delegate onsite. All enquiries received by any stakeholders –City Council, LOC, partners- will be immediately redirected to the LOC Communications Director, with ITU Media Delegate always informed of every enquiry and/or response.
  - An official statement will be released immediately after and the statement will also be read out by the LOC media person and ITU Media Delegate at the media working room with all the registered media attending.
  - ITU is to send a Press Release (agreed with the LOC) to all the media database (1,280 media outlets, including all major newswires and sports publications around the world).
  - ITU to send a Press Release (agreed with the LOC) to all our Right Holders (major Televisions around the world, including BBC, TVE, NHK, NBC, and some others)
  - ITU to release an official statement on all its official social media channels:
    - Twitter World Triathlon
    - Twitter Triathlon Live
    - Instagram
    - Facebook
  - Collect information about insurance policies, actions to be taken by participants and reimbursement or legal actions, to inform athletes and stakeholders of possible future actions.

c) Protocols

- Death of an athlete competing in the event
  - Protocol: All media enquiries to be directed to the LOC media office.
  - Media holding statement: With regret, we can confirm a participant has died at the *ITU Name of the city WTS on Date*. We are working closely with the police force and a full investigation will be carried out into the circumstances of the incident. Our deepest condolences go to their friends and family.
  - Communicating incident updates to Media Office / Control Room.
    - Liaison with media LOC
    - Drafting new statements LOC
    - Distributing of statements LOC and ITU
    - Approval of new statements ITU Media Delegate
    - Confirmation of interviewees LOC / ITU Media Delegate
    - Social media updates – only when in the interest of communicating to athletes / public

        - Website updates – only when in the interest of communicating to athletes / public
    - Health /personal issue: Full media statement: With regret, we can confirm a participant has died at the *ITU Name of the city WTS on Date*. We are working closely with the police force and a full investigation will be carried out into the circumstances of the incident. Our deepest condolences go to their friends and family.
    - Incident / organisation issue: Full media statement: With regret, we can confirm a participant has died at the *ITU Name of the city WTS on Date*. The organisers are now cooperating with the authorities to investigate the circumstances surrounding this incident. Our deepest condolences go to their friends and family.
    - Social media: Details of route change / closure / diversion.
    - Website: Details of route change / closure / diversion.

- Serious injury of an athlete
    - Protocol: Media enquiries to be directed to LOC (who will liaise with the Medical Director)
    - Media holding statement: We can confirm that an athlete participating in the swim / bike / run element of the event on *Date* required medical treatment and has been taken to hospital. We have no further information that we can share regarding this.
    - Full media statement: An athlete was injured during the *ITU Name of the city WTS on Date*. He/She received treatment from the event's medical *team/xx Ambulance Service/xx Fire* and Rescue Service and the participant was taken to hospital.
    - Additional info: Organisers provide safety information in communications to all participants before the event weekend. All participants also have safety briefing before the start of the race.
    - Social media: Details of route change / closure / diversion.
    - Website: Details of route change / closure / diversion.

- Death of a spectator
    - Protocol: All media enquiries to be directed to the LOC Communications initially then directed to police if it is not related to the event.
    - Media holding statement: With regret, we can confirm a spectator has died at the *ITU Name of the city WTS on Date*. Organisers are assisting the authorities with their investigation and await the outcome of that process. Our deepest condolences go to their friends and family.
    - Health /personal issue: Full media statement: With regret, we can confirm a spectator has died at the *ITU Name of the city WTS on Date*, as a result of/ following (insert details).
    - Incident / organisation issue: Full media statement: With regret, we can confirm a spectator has died at *the ITU Rotterdam Grand Final on September xx*, as a result of/ following (insert details). We are working closely with the authorities and a full investigation will be carried out into the circumstances of the incident. Our deepest condolences go to their friends and family.
    - Social media: Details of route change / closure / diversion.
    - Website: Details of route change / closure / diversion.

- Serious injury of a spectator
    - Protocol: Media enquiries to be directed to the LOC Comms person

- Media holding statement: The medical team/Xx Ambulance Service/xx Fire and Rescue Service are attending to an injured spectator. We will provide more information as soon as possible.
- Full media statement: A spectator was injured during the ITU Name of the city WTS on Date. The medical team/Xx Ambulance Service/xx Fire and Rescue Service attended at the scene and the decision spectator was taken to hospital. due to patient confidentiality we are unable to provide further details.
- Social media: Details of route change / closure / diversion.
- Website: Details of route change / closure / diversion.

- Cars getting onto the closed roads
  - Protocol: Media enquiries to be directed to the LOC. Depending on the circumstances further enquiries to the City Police.
  - Media statement
    v1 – no incident: We can confirm there has been an incident where a vehicle accessed the closed-road route. Action was taken immediately to remove the vehicle. The safety of the riders is of paramount importance and fortunately this incident only caused minimal disruption to the event.
  - Media statement
    v2 – incident: We can confirm there has been an incident where a vehicle accessed the closed-road route. Action was taken immediately to remove the vehicle. The safety of our riders is of paramount importance which is why the roads were closed. (Refer to injury / death statement above where appropriate).
  - Social media: Details of route change / closure / diversion.
  - Website: Details of route change / closure / diversion.

- Course being sabotaged
  - Protocol: Media enquiries to be directed to the LOC Comms Person.
  - Media holding statement: We can confirm that there has been an incident which affected the ITU Name of the city WTS on Date at (insert location). We are working closely with the police and a full investigation will be carried out into the circumstances of the incident. For more information please contact Police
  - Full media statement
    v1 – no incident: We can confirm that there has been an incident which affected the ITU Name of the city WTS on Date, on (insert location) at (insert time). It is believed that (insert details).
    Action was taken immediately to clear the route and fortunately this incident only caused minimal disruption to the event. The safety of our athletes is of paramount importance and this is a serious offence which has been reported to the Police.
  - Full media statement
    v2 –incident: We can confirm that there has been an incident which affected the ITU Name of the city WTS on Date on (insert location) at (insert time). It is believed that (insert details). (refer to injury statement if appropriate)
    The safety of our participants is of paramount importance and this is a serious offence which has been reported to the Police. We are working closely with the authorities and a full investigation will be carried out into the circumstances of the incident.
  - Social media: Details of route change / closure / diversion.
  - Website: Details of route change / closure / diversion.

- Cancellation of the event due to adverse weather conditions
  - Protocol: LOC to lead on media enquiries, ITU to announce
  - Full media statement: It is with regret that we announce the ITU Name of the city WTS on Date event has been cancelled due to adverse weather conditions. We do not, at any stage, wish to put our athletes in danger and the forecast adverse weather would have jeopardised the safety of the event. The safety of our athletes is of paramount importance and this decision has not been taken lightly.
  - Social media: Full details of route change / closure / diversion. Engagement with key stakeholders including media, local authorities and City Council to share messaging.
  - Website: Full details of route change / closure / diversion.

- Shortening / change of route due / cancelling of the swim or run due to adverse weather conditions
  - Protocol: LOC to lead on media enquiries, ITU to announce
  - Full media statement: Adverse weather conditions have forced us to make changes to the ITU Name of the city WTS on Date. We do not, at any stage, wish to put our athletes in danger and the forecast adverse weather would have jeopardised the safety of the event if the original route was adhered to. The safety of our athletes is of paramount importance and this decision has not been taken lightly. Information about the change of route is available on our website and updates will also be made on the ITU's social media channels. All participating athletes have been informed and will have the chance of training in the new course (Plan B) before the race.
  - Social media: Full details of route change / closure / diversion. Engagement with key stakeholders including media, local authorities and City Council to share messaging.
  - Website: Full details of route change / closure / diversion.

- Shortening / change of route due / cancelling of the swim due to water quality issues
  - Protocol: LOC to lead on media enquiries, ITU to announce
  - Full media statement: Adverse water quality results in XXXX have forced us to make changes to the ITU Name of the city WTS on Date. We do not, at any stage, wish to put our athletes in danger. The safety of our athletes is of paramount importance and this decision has not been taken lightly. Latest tests and observations in the body of water led to the ITU cancelling the swim leg. All participating athletes have been informed and were informed of this possibility during the briefing.
  - Social media: Full details of the decision and change to duathlon. Engagement with key stakeholders including media, local authorities and City Council to share messaging.
  - Website: Full details of the change in the format.

- Bomb / terror alert
  - Protocol: Media enquiries to be directed to City Police.
  - Media holding statement: We are aware of the situation and have implemented the appropriate contingency plans. The safety of our athletes and spectators is extremely important to us and we are working under the guidance of the authorities.
  - Full media statement

Event cancelled: The ITU Name of the city WTS on Date event has been cancelled following a bomb threat. Contingency plans, agreed in advance of the event were swiftly put into action [and we can confirm all participants and spectators were safely evacuated]. Friends and family of those at the event are asked to contact their loved ones via phone rather than come to the event site. Please contact the Police for more information

- Full media statement
  hoax: A bomb threat was received but City Police has confirmed that this was a hoax. Contingency plans, agreed in advance of the event were swiftly put into action and as there is no risk to our athletes or to the event, we can confirm that the ITU Name of the city WTS on Date will be going ahead as planned. Please contact the Police for more information
- Social media
  v1 - cancellation: Full details of route closure. Engagement with key stakeholders including media, local authorities and City CC to share messaging.
- Social media
  v2 – hoax: Reassurance of safety of event and confirmation that event is going ahead.
- Website
  v1 - cancellation: Full details of route closure. Engagement with key stakeholders including media, local authorities and City CC to share messaging.
- Website
  v2 – hoax: Reassurance of safety of event and confirmation that event is going ahead.

- Cancellation of the event due to an official protest
  - Protocol: LOC to lead on media enquiries, after consultation with ITU
  - Full media statement: It is with regret that we announce the ITU Name of the city WTS on Date event has been cancelled due to an official protest that was accepted by the Competition Jury. We do not, at any stage, wish to put our athletes in danger and the current situation of the swim / bike / run course would have jeopardised the safety of the event. The safety of our athletes is of paramount importance and this decision has not been taken lightly. LOC will inform of cancellation policies and next steps as soon as possible.
  - Social media: Full details of route change / closure / diversion. Engagement with key stakeholders including media, local authorities and City Council to share messaging.
  - Website: Full details of route change / closure / diversion.

6.8 Contingency plan

6.8.1 General

A contingency plan is a plan devised for an outcome other than in the usual (expected) plan.

6.8.2 Guidelines

These guidelines must be considered when creating the contingency plan:

a) The main goal is to continue the race – Look closely at what is needed to deliver a minimum level of service and functionality.
b) Define time periods – What must be done during the first hour of the plan being implemented? If one looks at the plan in this way, one's less likely to leave out important details.

c) Identify the trigger – What, specifically, will cause the implementation of the contingency plan? Decide which actions will be taken, and when. Determine who is in charge at each stage and what type of reporting process they must follow.
d) Keep the plan simple –One does not know who will read and implement the plan when it's needed, so clear, plain language must be used.
e) Consider related resource restrictions – Will the organisation be able to function the same way if Plan B is implemented, or will Plan B necessarily reduce capabilities?
f) Identify everyone's needs – Have people throughout the LOC identified what they must have, at a minimum, to continue operations.
g) Define 'success' – What will be needed to return to 'business as usual'?
h) Include contingency plans in standard operating procedures – Make sure that initial training is provided in the plan, and communicate all changes.
i) Manage one's risks – Look for opportunities to reduce risk, wherever possible. This may help to reduce, or even eliminate, the need for full contingency plans in certain areas.
j) Identify operational inefficiencies – Provide a standard to document the planning process, and find opportunities for performance improvement.

6.8.3 Contingency Plan Maintenance Process

a) After one prepares the contingency plan, several things need to be done to keep it practical and relevant – don't just create a document and file it away. As the event changes, the contingency plan will need to be reviewed and update these plans accordingly.
b) Here are some key steps in the contingency plan maintenance process:
   - Communicate the plan to everyone in the organization;
   - Inform people of their roles and responsibilities related to the plan;
   - Provide necessary training for people to fulfil these roles and responsibilities;
   - Conduct table top exercises among the management team where the staff thinking process and understanding will be checked through various scenarios, e.g. terrorist attacks, force majeure, volunteer shortage;
   - Conduct disaster drills with the whole LOC where contingency plans are put in action and tested, e.g. medical evacuation, course alteration due to contingency plan;
   - Assess the results of training and drills, and make any necessary changes;
   - Review the plan on a regular basis, especially if there are relevant technological, operational, and personnel changes;
   - Distribute revised plans throughout the organisation, and make sure that the old plan is discarded;
   - Keep copies of the plan off-site, and in a place where they can be accessed quickly when needed;
   - Audit the plan periodically;
   - Reassess the risks to the event;
   - Analyse efforts to control risk by comparing actual performance with the performance levels described in the contingency plan; and
   - Recommend and make changes, if necessary.

6.8.4 Definitions of Delay, Postpone and Cancellation

a) Delay: An event is considered delayed if it does not start at the scheduled start time.
b) Postpone: An event is considered postponed when it cannot be completed within the scheduled session (or an extended session) and is rescheduled to another session on the same day or another day.

c) Cancellation: An event is considered cancelled when it is delayed or postponed and cannot be restarted or rescheduled.

6.8.5 Rules on Delay/Postponement

a) The TD and Director of Operations would consult weather conditions and other situations in the interests of protecting the safety of the athletes. Specific rules on exceptional conditions can be found on the ITU Competitions Rules.
b) A competition delay should be confirmed before the athletes' introduction.
c) Any decision on a delay that extends more than 2 hours should take in consideration the athletes' rest and their nutrition.
d) The following table can be used as a guideline but it should not be definitive. The final decision will be made by the TD, after consultation with all the involved parties.

Table 34: Guidelines on Extreme Conditions Management (ITU, 2019)

Dangerous/ unsafe conditions	Action
Extreme Weather Conditions	Delay or postpone the event until further notice
Marine Activity	Change Triathlon to Duathlon Events
Poor water quality results	According to the ITU Competition Rules
Water temperature below 12C degrees	The swim leg will be cancelled
Water temperature between 12.0-12.9C degrees	The race distances will be 750m swim- 40km bike – 10 km run in a case of a standard distance event
Bike and run course area problems, e.g. accident, oil spill or crowd control	Avoid stopping the event, work on operational solutions
Major emergency (e.g.: fire, security threat)	Delay or postpone the event until further notice
Protest concerning the safety of the course	Follow instructions of the Competition Jury

6.8.6 Rescheduling Management

a) Points to note:
- Venue curfews - The race should not finish in the dark; and
- Sport technical constraints (i.e.: warm-up periods) - A 20-minute warm-up period must be provided for athletes.

b) Decision maker on delay / postponement/ cancelation
- The decision maker for anything that affects the competition rules and results in a decision on delay/ postponement/ cancellation lies with the TD after consultation with all involved parties.
- The decision maker for anything around force majeure that will lead to a decision on delay/ postponement/ cancellation lies with the security authorities after consultation with the TD and LOC.

c) Rescheduling options
- Race stoppage:

- Races can only be delayed prior to the start. Once competition has commenced it will continue until its end unless dangerous/unsafe conditions occur;
- If dangerous conditions occur and the race has to be rescheduled:
  - For standard distance events and below, cannot start in less than 1h
  - For middle and long distance event, cannot start in less than 1h in case that the event stopped during the first leg. If it stopped during the second leg, the event must be rescheduled for the next day.

More information can be found in the ITU Competition Rules

6.9 Broadcasting

6.9.1 Camera Plan

LINK

MAIL ITU

a) General

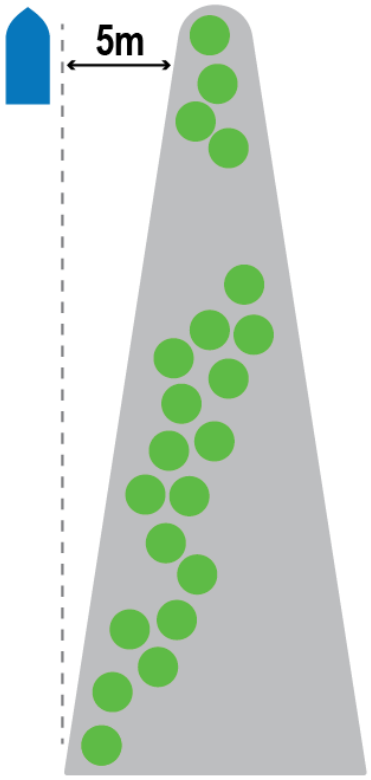
Please refer to the LOC requirement document of a specific level of event for more details;

- The location of the cameras on the FOP and the potential camera crew movements, have to be discussed and approved by the TD;
- There is no access granted to the FOP without approval from the TD; and
- All TV staff having access to the FOP have to be clearly identified by a specific colour of vest.

b) Boat movements

- The distance between all boats and athletes must be no less than 5m. Any boats must be clear of a virtual line formed by the lower extremities of the athletes' pack parallel to the athletes' flow. For closer shots, it is recommended to have the camera mounted at the extremity of a beam.

Diagram 52: Boat movement parallel to the athletes' flow (ITU, 2019)



- At no time a boat is in front of the athletes
- The boats are not allowed to cross the athletes' trajectory. They must choose a side and stick to it. Being on the inside of the athletes' trajectory allows the boats to follow the athletes on the second lap.
- Caution must be applied at the start (boats always start on the side of the pontoon), and at the end of the lap (boats must stay clear from the athletes diving back for the second lap).
- The TO boats monitoring the swim conduct behaviour of the athletes have priority over the broadcast/media boat's positions.

c) Motorbike movements

General:

- The maximum number of motorbikes on a course (standard distance and shorter) is five (5) (3 TV and 2 photo). The technical officials' motorbikes are additional to this number;
- Motorbike riders should follow the instruction of the technical officials;
- Photographers and camera operators are not allowed to sit facing backwards, except during the run leg and only when the type of bike permits AND both the driver and photographer/operator are comfortable with it;
- Only one media motorbike may be in action in front of the athlete(s) at any one point of the race along an athlete or group of athletes;
- The photographers and camera operators shoot from 45º degree behind;
- The photographers and camera operators may shoot from 45º in front or from the side, only in the sections of the course that is allowed;

- In case of a group break away, the motorbikes are not allowed to be in front of the leaders or the chase pack at any point of the race following that moment unless it is allowed by the TD;
- Stopping on the course is not permissible, except to allow for a shot if the bike stops in a safe area and doesn't interfere with the flow of the race. These places have to be approved by the TD;
- Motorbikes will never shortcut the course as they may be followed by the athletes.

Drafting zone:

- Never provide a draft to a cyclist >> can lead to an athlete time penalty. The minimum distance between a motorbike and the athlete **= 15m ONLY IN CASES WHEN THE MOTORBIKE DRIVER DON'T ALLOW THE ATHLETES TO BENEFIT FROM THE MOTORBIKE'S SLIPSTREAM;**
- If motorbike in front of the athlete(s), must move far ahead 50m before corners (min 30m ahead);
- During the run segment the minimum distance can drop to 5m between the motorbike and the athlete(s).

Action in case of an accident:

- In the event of an incident (example: athletes going down on the course) motorbikes must be to the side, in the safest position possible to not inhibit the flow of the remaining athletes or cause further accidents.

Communication:

- If the motorbike gets too close to or endangers the athletes, the driver will be warned a first time via radio (via the producer), the second infraction the driver will be warned directly by an ITU Technical Official, third infraction the motorbike will be removed from the field of play. In any case, If the motorbike driver do something egregious will be removed from the course immediately.

Inappropriate position of TV motorbike:

d) Drones

Drones cannot fly above athletes or spectators and should have a dedicated landing area. Special attention should be given to local laws and regulations around the use of drones, which can be different from place to place.

6.10 Branding Plan

6.10.1 General

a) The LOC is obliged to exclusively use the ITU logo in all print material/public relations work.
b) The LOC is obliged to use the ITU branding material provided.
c) The final branding artwork and the FOP branding plan should be approved by the TD or TL (if present).
d) Please refer to the LOC requirement and branding guidelines documents of the specific level of event for more details.

6.10.2 ITU Signage

a) Use of the ITU logo and branding rules can be found in the ITU Branding Guidelines.
b) ITU is providing scrims, flags for the ITU World Triathlon Series, World Cup, Multisport World Championships and Paratriathlon World Events. Inflatable arches are provided for the World Triathlon Series and if applicable for World Cup and Multisport World Championships.
c) The branding plan (for the main venue and course areas) should be available to the TD or TL (if present) for approval at least 30 days prior to the competition.

6.10.3 Sponsors Signage

a) The plan for sponsor signage, both on-site and for all other event related functions, must be incorporated into the overall 'look' of the event.
b) The distribution between ITU and sponsors (at swim/finish/transition areas, and on the finish gantry and podium) should be done according to the ITU Branding Guidelines.

6.10.4 Mascot (Optional)

a) Appropriate outfit and time spent in the outfit should be adapted to the weather conditions.

b) The mascot user should practice walking in the suit out of the view of the public prior to entering a public place.
c) Mascots must always be escorted (changing time included where gender appropriate). This escort should ensure the mascot's safety and guide them when walking. The escort should also direct the mascot user to the direction of intrigued members of the public.
d) The mascot user should not actively encourage physical contact with children, young people and vulnerable adults unless it is in the form of a 'high five'.
e) Pictures with the mascot should only be taken with consenting adults, or with children whose parents are present and consenting.
f) The mascot should not approach children or animals. Let the children / animals approach the mascot. Animals must be on secure leads.
g) The mascot doesn't talk.
h) Try to ensure different performers are of a relatively similar size – as this is good for continuity and images.

6.11 Sport Presentation

6.11.1 General

Sport Presentation includes all onsite presentation elements: video production, sport announcements and commentary, music, audio, lighting, entertainment and medal ceremonies.

6.11.2 Team Involved in Sport Presentation

a) Team Leader (TL) or the Technical Delegate
b) LOC Sport Presentation Manager
c) Announcers (Minimum 2; At least 1 ITU Triathlon Expert; 1 woman if possible)
d) DJ (Sport Event Music DJ; Mixture of local and international popular music)
e) Audio Engineer
f) Video Engineer (if Big Screen)
g) Medal Ceremony Hostesses (2)
h) VIP Escort
i) Flag Staff (3)

6.11.3 Tools

You can find all relevant documents here.

6.11.4 Meetings

a) Kick Off Meeting
Attendees: TL or TD, LOC Sport Presentation Manager, Audio, Video Contractors
Purpose: Introductions, ITU Sport Presentation concept and workflows, Booth setup
When: Prior to bump in (circa 3 days prior to event, if possible)
b) Announcers Briefing
Attendees: TL or TD, LOC Sport Presentation Manager, Announcers
Purpose: introductions, ITU Sport Presentation concept, Workflows, Briefing, Notes and Material, Scripts, Introduction Rehearsal & Timing
When: 2 days prior to event (if possible)
c) Start rehearsal
Attendees: TL or TD, LOC Sport Presentation Manager, Announcers and Audio Engineer
Purpose: Athlete and TO Introduction Rehearsal, Time taken
When: 1 day prior to event
d) Medal Ceremony Rehearsal

Attendees: TL, LOC Sport Presentation Manager, Announcers, Audio Engineer, Hostesses plus 6 volunteers
Purpose: Victory Ceremony Rehearsal, Movement, Time taken
When: 1 day prior to event
(volunteers to play the roles of presenters and athletes)

6.11.5 Sport Presentation Booth

Specifications can be found in the Venue operations section

6.11.6 Communications

Specifications can be found in the Communication plan section

6.11.7 Technical Official and Athletes Introduction

(script provided by ITU/ TD)

a) Technical Officials (as a group) are welcomed onto the Field of Play followed by individual Athletes Introduction. Both should be to themed music with a break between. Music is available within the Tools links above. The names of the Technical Delegate, the Head Referee and the Medical Delegate are announced as part of the TOs introduction.
b) Athlete Introductions are to be limited to 5 minutes maximum.
c) Scripts must be rehearsed and adjusted accordingly. Introductions can be in English or the local language. Please consult with the TD first.
d) ITU will provide the template (in English) which can be adjusted / edited to suit.

TIPS

Assist the announcer by noting in a duplicate introduction script their position for each 10 second interval during rehearsal. This will help keep them on track during the live performance as nerves typically alter the announcer's pace.

6.11.8 Audio

a) An audio plan / map should be developed with the audio company.
b) This highlights which areas should have coverage and the working/technical areas that should not have sound. Note: the swim start (for athletes) should be covered – both speakers and microphones.
c) An experienced sport DJ will significantly add to the atmosphere within a venue. Playing different tempo music to suit current events will also help with the atmosphere.
d) The LOC is responsible for Music Rights Licensing.
e) The LOC should determine local noise level restrictions.
f) The Audio Requirements below, lists typical equipment required for an event.

NOTE: In case of a PTVI competition, the PA system should not be facing the TA so the guide is able to communicate properly with the athlete.

6.11.9 Video

a) Big screens may be provided.
b) The Video Requirements below lists typical equipment required for an event.
c) Generic video and graphics are available from the ITU server. See Tools for links to download.
d) LOC video and graphics material should be provided to the video contractor at least 1 week in advance to format and load their system.

6.11.10 Timing

a) A commentary information system (CIS) is advised for the announcer's use. The announcers will also need a laptop / iPad display of current timing information.
b) For larger Age Group races an announcer's timing point is required. This timing mat should be approximately 50 metres prior to the finish. This enables the announcers to call names from the CIS as the athletes approach the finish.

6.11.11 Sponsor Material

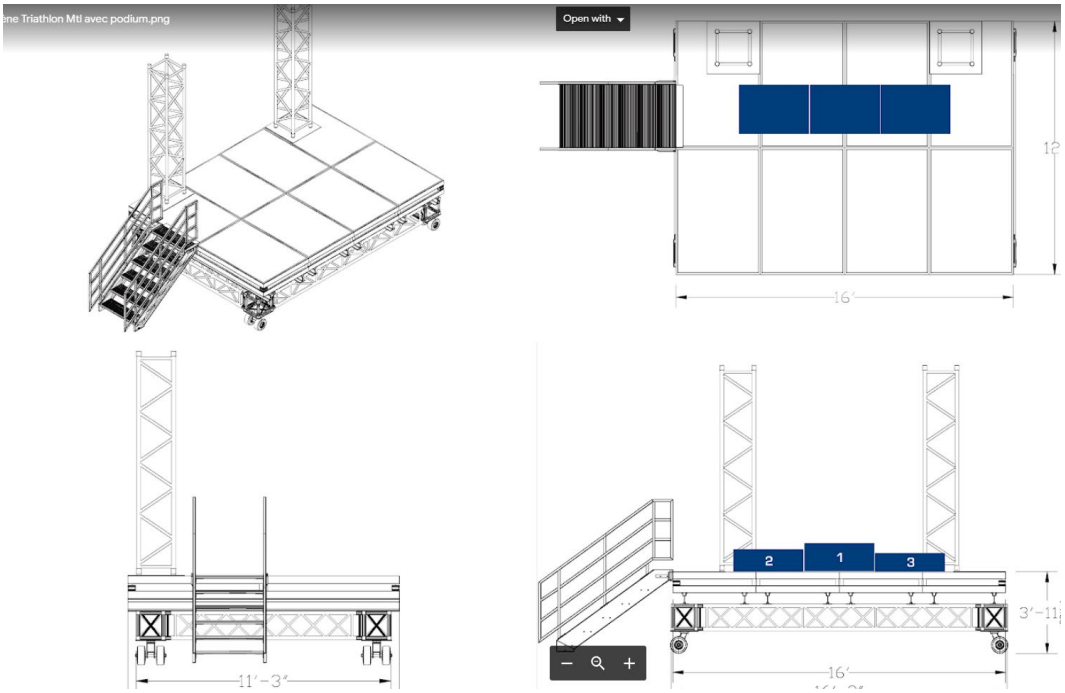
a) Please provide any sponsor announcer scripts to announcers in the local language.
b) LOC video and graphics material should be provided to the video contractor at least 1 week in advance to format and load into their system.

6.11.12 Medal Presentation

a) General
- A presenters list should be completed with the TL/TD as soon as possible;
- Medal ceremonies should begin as soon as possible after the top 3 athletes finish to retain audience interest. This requires all parties to be in place prior to the finish. TD can arrange to suit the race circumstances;
- Medals are provided by ITU for the World Cups, WTS, Multi-sport World Championships and Paratriathlon World Events;
- The medallist chaperones will escort athletes to the podium;
- The LOC VIP escort should escort presenters to the podium (prior to finish or immediately post finish;
- Music is available from Tools but may be substituted in consultation with the TL/TD;
- National Anthems provided within Tools must be downloaded prior to the event and used; and
- Hostesses should be formally dressed in matching colour and style.

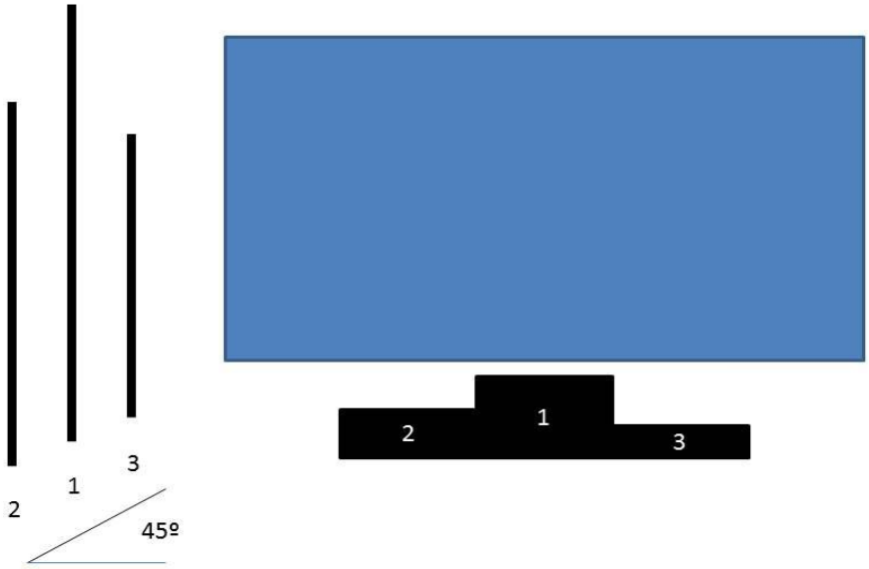
b) Medal presentation layout
- Podium placement: placed in full view of VIP and spectator area and off the field of play. The podium can be placed in the finish gantry;
- Podium specifications: The centre standard should be the highest (0.50m x 1m x 1m), with the one of the left slightly lower (0.35m x 1m x 1m) and the one on the right the lowest (0.25m x 1m x 1m). (approximate measurements);
- The podium may be place on a fixed location or on a rolling platform (specification below)
- For AG medal ceremonies, it is recommended to use a platform with entrance in one side and exit on the other side to facilitate and speed the ceremony.

Diagram 53: Rolling platform design (ITU World Triathlon Montreal, 2018)



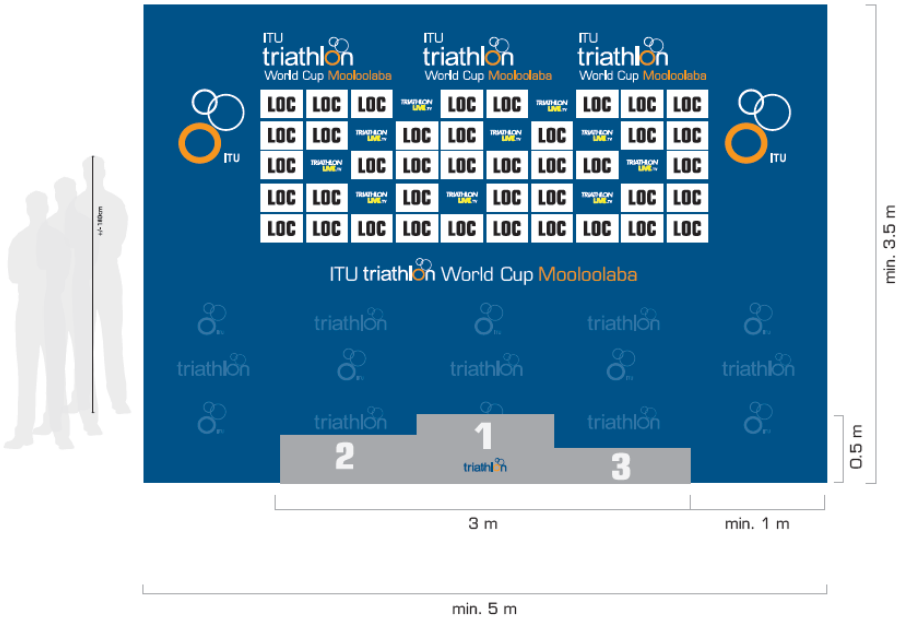
- Carpet specifications: the podium steps will be completely covered in blue carpet;
- Flag positioning and standards: The centre standard should be the highest, with the one of the left slightly lower and the one on the right the lowest. The athletes should not turn more than 45° to see the flags. The flags have to be visible for the VIPs. ITU will provide an ITU flag for the WC, WTS, Multisport WCH and World Paratriathlon events, in case an athlete racing under the ITU flag is on the podium;

Diagram 54: Flag Positioning and Standards (ITU, 2019)



- The LOC is responsible to ensure that they have flags of each country of participating athletes. Provisions must be made for multiple winners from one country. This can be reviewed with TL; and
- Backdrop specifications (refer to the ITU Branding Guideline for the layout);

Diagram 55: Medal Ceremony (ITU, 2019)



c) Medal presentation procedures

- Hostesses lead the procession in the following order: medal hostess, flower hostess;
- Followed by:
  - 2nd place athlete;
  - 1st place athlete;
  - 3rd place athlete;
  - The flower presenter;
  - The medal presenter;
- The procession will assemble in designated assembly area;
- The ITU official will give the cue to the music operator who will start the intro music and the procession will begin;
- The hostesses will lead the procession;
- The procession will proceed towards the stage, going behind the podium creating a U formation on the stage;
- The flower and medal bearers face their respective VIP presenters;
- The athletes standing behind their respective podium position;
- When the announcer finishes announcing the third place athlete, the medal presenter and medal bearer will step forward and meet in front of the athlete, the presenter will take the medal and present it to the athlete and the medal bearer will step back into position;
- When the medal presenter has presented the medal he/she will step back and the flower presenter and flower bearer will step forward and the flowers will be presented to the athlete;

- The flower presenters will step back and all will follow the same procedure for 2nd and 1st place finisher on cue from the announcer;
- When the 1st place medal and flowers are presented, the announcer will ask everyone to stand/rise for the anthem of winning athlete;
- As the anthem begins the flag bearers/raisers will raise the flags slowly with the winning flag going up first and reaching the top as the anthem ends;
- Following the anthem the athletes will group together for a group photo. (30-45 seconds);
- The hostesses will lead the procession off the stage; and
- This same procedure will be repeated for women and men. Once both medal ceremonies are complete the announcer will invite all medalists to join on to the podium for the champagne presentation.

6.11.13 Checklists

a) Sport Presentation Checklist

- Announcers (1 English speaking);
- SP Booth with FOP / Ceremony view;
- Tables & chairs;
- Power;
- Lighting;
- Internet;
- Video company;
- Big screen (if required);
- Request feed from broadcaster if live + TV screen;
- Laptop / iPad display of currents timing information cameras (finish & roving – if big screen);
- Video and GFX collection and handover (Sponsors & ITU);
- Audio company;
- Audio footprint plan;
- Audio local bylaw check (levels, start time, weekends etc.);
- Microphones;
- DJ;
- Music rights license;
- Radios and dedicated channel;
- Radio license;
- Meetings and rehearsal scheduled;
- Start Lists; and
- Announcer Info pack – rankings, Athlete profiles, scripts, sponsor info.

b) Timeline medal Ceremony checklist:

- National anthems of all entries;
- Flags for all entries (up to 3 for each nation);
- Flag poles;
- Flag staff (3 flag bearers, 1 medal bearer, 1 flower bearer, 1 medal presenter, 1 flower presenter, champagne presenter (s));
- Dressed table for VC (hold medals, flowers etc.);
- 2* tray / pillow for medals and flowers;
- 6 * champagne (W Cups, Continental Championships, Multisport WCH and WTS only);
- 6 * flowers (more in case of paratriathlon);
- Medals;
- Podium;

- Branded backdrop;
- Lighting, if required;
- Presenter list with official titles;
- Presenter escort;
- Hostesses (formal dress); and
- Ceremony script.

6.11.14 MC Script

a) Welcome and Description of Day's Events
   - A warm welcome to everyone by the MC along with the presentation of the day's schedule;
   - Following this, the event courses will be presented.

b) Interview with VIPs
   - The MC should try to interview VIPs who are on site.

c) Sponsor Announcements and In-Crowd Activity
   - Sponsor announcement;
   - In-crowd activity – Mexican wave, crowd cheering contest, etc.

d) Lap music
   - Introducing the crowd to the music signalling the arrival of the lead athletes to the grandstand area. Ask them to give the athletes some energy – clapping hands, cheering. Welcome all the athletes back to the stadium, especially the local athletes!

e) Sponsors and Partners
   - The sponsors of the events should be presented during the race.

f) Athletes to Watch
   - The best athletes to watch should be presented to the crowd, along with the athletes' best results.

g) Last Minute Information
   - Last minute information should be provided (water temperature, expected weather conditions)

h) Technical Official Introduction
   - The start line technical officials must be introduced before the athletes.

i) Athlete Introduction
   - Script prepared according to the final start list.

j) Medal Ceremony – Elite Race
   - Script provided below

Notes:

- Silence. It is important to give the audience time to enjoy the music and atmosphere through frequent breaks in commentary. The audience can only take in so much talk and information;
- Event Title – Practice and memorise. Sponsors pay a lot of money to invest in events. Please ensure to get the name right;
- Lead Pack – Elite races are draft legal events. There is no individual leader but a lead pack of athletes who rotate at the front;
- First Chase Pack – First group following the lead pack (2nd group overall);
- Second chase pack – Third group overall;
- Elites athletes – preferred to professional;
- Age Group athletes is preferred over the term amateurs, recreational, etc.;
- Triathlon Mixed Relay is the correct term for team triathlon; and
- Paratriathletes not AWAD (athletes with a disability).

6.11.15 Athletes' Introduction

a) Timeline
   - Fifteen (15) minutes before race start: athletes will be called to the pre-start area;
   - Once in the pre-start area, technical officials will line the athletes up by race number;
   - Up to five minutes before race start: (time varies depending on distance from pre-start area to swim start and the number of the athletes), the TD will inform the announcers that the athletes are ready to be introduced; and
   - Prior to introducing the athletes, the announcers must remind spectators that no horns or whistles can be used while the introduction and start is in progress and ask them to remain quiet until after the start of the race.

b) Athlete Introduction script protocol: The athletes will be introduced in 4 'seeded' groups, based on race number and rank. These groups and the corresponding script notes for each introduction are as follows:
   - Athletes numbered 1 to 10: Introduction of each athlete individually in race number order, saying the start number, country, current rank and/or provide one recent/exceptional race results, full name. (i.e. "wearing number 1, from Canada - currently ranked 5th in the world and fresh off a World Cup win in Mooloolaba, Kirsten Sweetland!");
   - Athletes numbered 11 to 20: Introduction of each athlete individually in race number order, saying the start number, country, current rank, full name. (i.e. "wearing number 12, from New Zealand, currently ranked 16th in the world, Ryan Sissons");
   - Athletes numbered 21 to 50: Introduction of each athlete individually in race number order, saying the start number, country, and full name. (i.e. "wearing number 35, from South Africa, Kate Roberts!"); and
   - Athletes numbered 51 and above: Introduction of each athlete individually in race number order, country, and full name. (i.e. "from Hungary, Alfred Torok!").

c) When the athletes have all been introduced, the announcer ends the start duties. The announcer must remain silent until after the start as detailed in the prepared script.

d) As soon as the athletes are lined up, the Start-line officials will raise their flags and the Starter says, 'On your Mark' followed by the start horn.

e) If it is a clean start then the official's microphone will be turned over to the announcers. If there is a false start then the Starter will give further instructions to the athletes according to the start procedures outlined in the ITU Competition Rules.

LINK

TIPS

NB: Bad Weather: To prevent hypothermia or hyperthermia, when conditions are bad the start protocol will be condensed to speed up the athletes' transition from swim warm-up to start. This will be done in consultation with the TD.

6.11.16 ITU Introduction Protocol: Announcers' Script

LADIES AND GENTLEMEN! PLEASE WELCOME THE RACE TECHNICAL OFFICIALS OF THE *"NAME OF EVENT"*

LEADING THE TECHNICAL TEAM TODAY ARE:
TECHNICAL DELEGATE: "*FIRST NAME LAST NAME" FROM "COUNTRY"*
HEAD REFEREE: *"FIRST NAME LAST NAME" FROM "COUNTRY" (AND "FIRST NAME LAST NAME" FROM "COUNTRY")*

MEDICAL DELEGATE: *"FIRST NAME LAST NAME" FROM "COUNTRY"*
(Music)

LADIES AND GENTLEMEN! PLEASE WELCOME THE ELITE WOMEN ATHLETES OF THE 2017 ITU WORLD TRIATHLON GRAND FINAL ROTTERDAM

Wearing #1, from Bermuda
The 2016 World Champion
FLORA DUFFY

Etc.
Music continues until 15 seconds prior to start time if given all ready from TD.
Heartbeat for 10 seconds followed by 5 seconds of silence.
If running late 5-10 seconds of heartbeat followed by silence.
Constant radio contact with TD is required.

6.11.17 Presenters List

Elite Men

	Name	Title
Medal Presenter		
Flowers Presenter		
Trophy presenter?		
Champagne Presenter(s) (up to 3)		

Elite Women

	Name	Title
Medal Presenter		
Flowers Presenter		
Trophy presenter?		
Champagne Presenter(s) (up to 3)		

6.11.18 Medal Ceremony Script Template

Announcer's Script Victory Ceremony

"Mesdames et Messieurs, bienvenue à la cérémonie protocolaire de remise des médailles du ITU Triathlon World Cup Edmonton"
"Ladies and Gentlemen, welcome to the Medal Ceremony of the ITU Triathlon World Cup Edmonton":

Les médailles sont remises par :
"Presenting medals today will be: _____
(Title:) _____

Les fleurs sont remises par :
"Presenting flowers will be: _____
(Title:) _____

"Troisième et médaillé de bronze"
"In third place and the winner of the bronze medal"

Representing (country): _____
(name) _____

"Deuxième et médaillé d'argent "
"In second place and the winner of the silver medal"
Representing (country): _____
(name) _____

"Premier et médaillé d'or du ITU Triathlon World Cup Edmonton"
"In first place and the winner of the gold medal at the ITU Triathlon World Cup Edmonton"
Representing (country): _____
(name) _____

Mesdames, Messieurs, veuillez vous lever
pour l'hymne national
Please rise for the playing of national anthem
of _____

Veuillez nous rejoindre pour la célébration au champagne présentée
par
Please join us for the Champagne Celebration presented by

_____

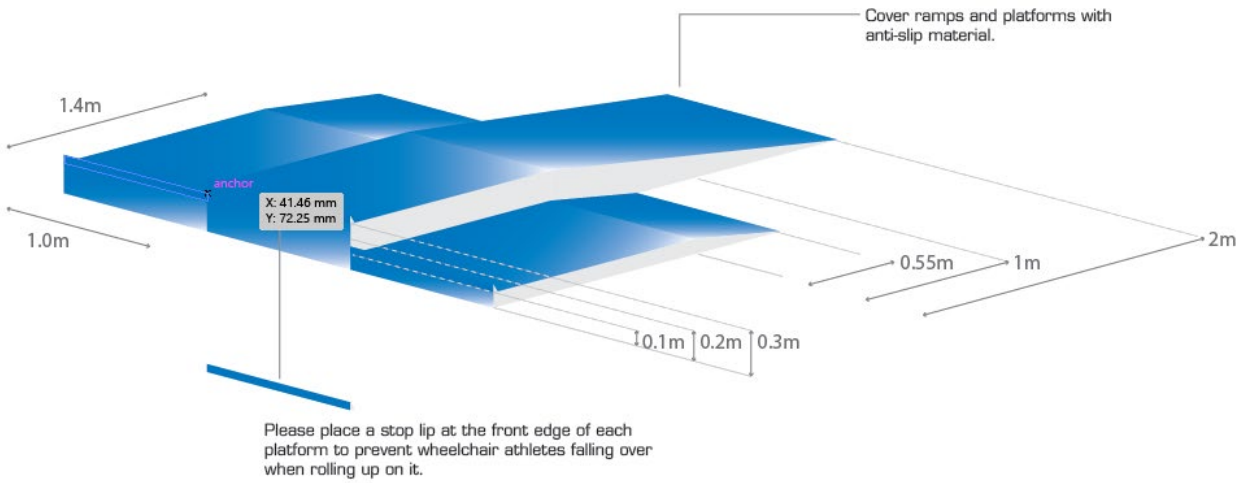
_____

"Félicitations à tous les vainqueurs du ITU Triathlon World Cup Edmonton "
"Congratulations to all the winners of the ITU Triathlon World Cup Edmonton"

6.11.19 Paratriathlon Medal Ceremony- Specific Information

a) Every single category for men and women event, including guides, should receive a medal. Medals will be awarded up to third place in each category.
b) The ITU, in conjunction with the LOC, need to ensure enough medals are available for the presentation ceremonies. If a stage is to be used for medal ceremonies, ensure a ramp is provided for access by wheelchair athletes.
c) Podium specification
   - Each of the platforms are 1.40m length x1m width;
   - The heights of the platforms are:
     - 1º 0.30 m
     - 2º 0.20 m
     - 3º 0.10 m
   - The lengths of the ramps are:
     - 1º 2 m
     - 2º 1 m
     - 3º 0.55 m
   - They are made of plywood (or equivalent) of 0.02 m thickness and ramps for 1º and 2º are reinforced so they don't bend when wheelchairs are going up.

Diagram 56: Paratriathlon Podium Specification (ITU, 2019)



6.11.20 LOC Gifts Presentation Template

ITU will present the LOC and City with a gift of appreciation. Ideally, this will be done at a private VIP function but may be done post Medal Presentation in consultation with the TL.

A sample script for this is:
“Ladies and Gentlemen, we have one more small ceremony.
International Triathlon Union President and IOC Member Marisol Casado will present a gift of appreciation to representatives of the Host City and Local Event Organisers in thanks for their hosting what we can all agree was a hugely successful event.
For the National Triathlon Federation of X: _____

For the Local Organizing Committee: _____."

6.11.21 Sport Presentation Audio Technical Requirements

Audio Equipment:
Minimum list for World Triathlon Series Events

- Audio mixer - 16 in / 8 out & 4 band equaliser mixing console (e.g. Midas, Soundcraft, Yamaha…);
- Equalization - 2 x 31 band graphic equalisers (e.g. Klark technic, BSS….) for each line used;
- Compression - 2 x insert compressors & de-esser for each microphone channel (e.g. BSS, DBX…);
- Audio isolators - 2 x balanced audio isolators for all feeds;
- Radio mic for each announcer plus one for race starter (at pontoon) - Shure uc series (or similar quality) hand held microphone with long range aerial;
- Stadium Speaker System (venue specific). Multiple spot speakers on stands are preferred to line arrays;
- All associated cabling
  - between equipment
  - to FOP speakers and any localized speakers associated with the big screen

Additional (not required and based on budget)

- Communications Clearcom MS-440 (communication) (or similar)
  - Headsets for all contractors in the SP control (Announcers, DJ, Audio, Video, Director)
  - In-Ear headsets for on-site staff. Floor manager and on-site announcer
- 2 x on field fold back monitor for Medal Ceremonies.

6.11.22 Sport Presentation Video Technical Requirements

Video Equipment:
Minimum list for World Triathlon Series Events

- Vision mixer – 8 input 2 bank vision mixer (e.g. MX70, Fulsom);
- Playback Hard drive system. Playback pre-produced graphics, Video and slides;
- Playback 1 x DVD player;
- TV (playback monitor, director & announcers viewing);
- Big Screen (20 m2 minimum,16:9);
- 2 x cameras (one with tripod fixed at finish line, 1 with operator for interviews/ceremonies; and
- All associated cabling
  - between equipment
  - to and from Host Broadcaster (dirty feed)
  - to big screen.

Additional (based on budget – if required by LOC/sponsors)

- Recordable DVD Player (or similar) and Stock for Program Archive

6.12 Good Environmental Practice Guide on Triathlon Events

6.12.1 General Considerations

a) Determine if it makes sense to adopt a sustainable policy on environmental aspects of your event.
   - The environmental policy of an event is a written document that contains the goals and the actions that are going to apply to evaluate the results later. This compromise has to be ratified by all the stakeholders taking part in the organisation: Sport federations, LOC, sponsors, public bodies, etc.;
   - The environmental policy has to be produced at the planning phase including specific elements of management and communication, as an environmental program;
   - It is necessary, before starting the planning, the LOC to decide if would like to compensate the generated CO2, or to get a certification ISO 14001. It is necessary to consider that this certification has to be supervised by an authorised company and has an economic impact. For one-time events, it is not advisable to get this certification;
   - Even when it is not possible to have a neutral carbon event, it is convenient to evaluate all the actions taken. So, the kilograms of plastic collected for recycling, the substitution of private transportation by public transportation, and the water saving can be “translated” into the reduction of CO2 Kg emitted;
   - A neutral carbon event is one that compensates the emission of CO2 generated because of the event. The emissions caused by transportation (road and plane) and power consumption can be compensated by green projects that help to reduce emissions. A budget is needed for this. There are companies who can calculate the event emissions and to manage the compensations; and
   - Another option is to manage an ISO 14001 certification through an authorised company. The ISO 14001 is the first reference in environmental management for any kind of event worldwide, but it is not very important among sport events. This certification was applied to large events such as the Torino Olympic Winter Games, and its model was followed by smaller events. The main aim of this certification is the continuous improvement, and therefore one-time events are not appropriate to get this certification. The case of WCs or WTS events can be considered as annual event and the improvement can be considered from year to year.

Picture 94: ITU Sustainability (ITU, 2019)

b) Identify the location.
   - Consideration of where the event is taking place. For example, in an urban environment or not;
   - We need to be especially careful when organising events in natural environments, to limit the impact; and
   - Public transportation facilities to get to the venue should be considered.

c) Spectators attendance
   - It is very important to preview the spectators attending the event and the impact on the environment.

d) LOC structure and information management.
   - It will be necessary to have a structure of environmental management. Sometimes the event goes wrong because the organisational structure is not in place or because the communication is poor;
   - It is essential from the very beginning of the project to apply human, material and economic resources to implement and develop the environmental program; and
   - Communication is important to keep all the areas of the organisation informed.

e) Include all the stakeholders
   - It is important that all the stakeholders are included and communicated to about the environmental goals of the event.

f) To do a little is a lot, believe it or not.
   - One may think that adopting small actions is not relevant, but it is. It is important to start small and build on these successes. Furthermore, adding a lot of small things can add up to a lot. It will be impossible to implement all the operations included in this document, but the most important thing is to start to change the minds within the whole organisation.

g) Everything in the budget
   - Some of the actions may be more expensive and the budget can be increased, but if it is possible, the effort is invaluable. The benefits on the environment are difficult to account for, but highly satisfactory for the society at large. It is possible to take actions that reduce the budget. For example, just reduce the number of printed advertisements.

h) Evaluate and inform about the results
   - It is important to write reports of all the operations, which will be useful for future events and other LOCs; and
   - It is important to communicate with forums and seminars to be informed about projects implemented by others and to make visible the results of one's actions.

i) Include the good practice in the bid documents
   - ITU will consider good environmental practices when evaluating the bid document. The inclusion of the environmental factors is recommended.

7 Section 7: Paratriathlon Specific

7.1 General

This section of the document provides some additional information that is Paratriathlon specific and could not be included in the previous sections. Please refer to the Paratriathlon paragraphs of the previous sections for complete information in all the areas.

7.2 Paratriathlon Competition Categories

The Paratriathlon categories can be found in the ITU Competition Rules. LOCs should familiarise themselves with these rules.

7.3 Classification Logistics

a) Generic
- In the World Paratriathlon events, the Paratriathlon Continental and World Championships, the LOC may be required to provide all the logistics for athletes' classifications; and
- Classification should be completed using the latest classification manual.

b) LOC personnel
- The Classifiers shall be assigned an administrative assistant by the LOC who should be available throughout the classification period. If there is classification for the visually impaired, a second LOC administrative assistant should be available as well at the location where VI classification occurs.

c) Classification venue
- An appropriate waiting area with accessible toilets and elevators if required shall be provided near the examination rooms with adequate seating and a table for the administrative assistant person.
- Drinking water should be available in this area.
- Internet /WIFI access or local mobile phone with data tethering option.
- Access to a printing/photocopier should be available from this area.
- Clear signage to indicate the access to the classification rooms from the exterior.
- Nearby access to a dedicated lane in a swimming pool. In case of no availability during the entire day, specific timeframes of minimum two hours/day can be set with the LOC on the classification day.
- External area where athletes can run for 100m in a straight line secured from traffic.

d) Classification room standard – Physical Impairments (One or two rooms depending on number of classification panels for the event)
- A clean, private examination room large enough to accommodate up to six people;
- The room shall be equipped with:
  - An examination bed (physio table)
  - One pillow
  - Two pillow cases, two sheets and two towels
  - chairs, (for 2 observers, 2 classifiers, athlete and support person)
  - a table
  - Drinking water
  - Hand sanitiser and disinfectant wipes to clean down the examination couch
  - Air conditioning unit if needed
  - Multiple electricity sockets to plug in at least 4 devices
- Sports Equipment (per classification room)

- A cycling wind trainer or turbo trainer with exchangeable bike wheel skewers to ensure all bikes can fit and a front wheel support.

Picture 95: Cycle Wind Trainer (ITU, 2019)

- An electronic running treadmill

Picture 96: Running Treadmill (ITU, 2019)

e) Classification rooms – Vision Impairments (One or two rooms depending on the number of classification panels for the event)
   - There shouldn't be great variation in luminosity between the waiting area and the classification room(s);
   - Rooms must be at least 6m long with a minimum of 1m width in an open area (for VI testing) and enough room for the other observations and equipment, slit lamp, auto refractometer;
   - The classification rooms and waiting room should not have natural light. Windows must be adapted to fully obscure outside light;
   - The light must be stable, uniform and bright enough, without shadows. Classifiers must be able to control the luminosity in the room(s) (light dimmer control);

- Enough tables (2) and chairs (5 per classification room) must be provided for the classification rooms and in the waiting area (1 table and 3 chairs). One chair for athlete assessment (auto refractometer, slit lamp) must be height adjustable; and
- One laptop per room with internet and printing access in the room or at the waiting area.

f) Specific VI assessment equipment:

- Equipment that is required for classification assessment are (PER PANEL /ROOM):
  - Auto refractometer
  - Lensometer
  - Eye occluder
  - LogMAR / ETDRS tumbling E chart
  - Set of Berkeley Rudimentary Vision Test chart (BRVT: Single tumbling E's, Grattings, Basic vision)
  - Box of Trial Lenses (set with convex and concave spheres, and convex and concave cylinders)
  - Trial Frame
  - Direct Ophthalmoscope (with wall / table charger or sufficient batteries)
  - Slit lamp
  - +90 D observation Lens, for slit lamp
  - Eye pads (5cmX5cm)
  - Tropicamid eye drops
  - Anesthetic eye drops (lidocaine or oxybuprocaine hydrochlorides)
- Equipment that are required for classification assessment are (PER CLASSIFICATION VENUE)
  - Automated Perimetry (Goldmann VF Perimeter or Humphrey Field Analyzer or Octopus Interzeag - one required per room)
  - Metric Tape (6 m)
  - Tape (masking, packing or duct tape) and black marker

g) Side logistics

- Morning and afternoon tea/coffee and lunches to be provided for the classifiers and classification assistant.
- A cell phone for use by the chief classifier

h) Finish area classification room

- One room for the classification administration and paperwork to be finalised after the competition, close to the finish area with same requirements as a standard room.
- For specifications, please refer to the Venue operations section

7.4 Personal Handlers

a) Some of the Paratriathletes will be allowed to have a personal handler. See ITU Competition Rules.

b) Securing personal handlers is the responsibility of each athlete. The LOC doesn't need to provide these people to the athletes who are eligible to have one.

c) Personal handlers are to be allowed according to the ITU Competition Rules.

d) Each of the handlers needs to receive a yellow t-shirt or vest and an athlete's Bib number that they have to wear at all times.

Picture 97: Personal Handler's Vest (Triathlon Australia, 2014)

7.5 Paratriathlon Checklist

For the proper management of the event, is recommended that the LOC use the Paratriathlon check list that can be found at Appendix 11.

8 Section 8: Appendix

8.1 APPENDIX 1: Budget Template

ITU TRIATHLON WORLD TRIATHLON
SAMPLE BUDGET TEMPLATE

BUDGET SUMMARY	VIK	CASH	TOTAL
REVENUE			
Government Funding			
City/Municipal Funding			
Corporate sponsorship			
Race Entry Fees			
Other revenue			
VIK Corporate Donations			
VIK Donations from City/Municipality			
EXPENSES			
Promotions & Media			
Special Events			
Office			
Sponsorship			
Course Set Up & Race Operations			
Administration			
TOTALS			

WORLD TRIATHLON BUDGET			
PROMOTIONS & MEDIA	**VIK**	**CASH**	**Total**
Promotion – Advertising			
Media Ads			
Radio Ads			
Television Ads			
Souvenir Program			
Design			
Production			
Literature/Posters			
Design			
Production			
Race Media Centre Park			
Equipment, lease			

Media Conferences			
Cell phones /land lines			
Internet hook ups			
Community Awareness			
Promotional Flyers			
Brochure			
Newsletters			
Banners (bridges and other)			
Street Pole dressing			
Mascot			
Design and creation			
Appearance Fee			
Cleaning			
Television Production			
ITU TV production fee			
Motorcycles and drivers x 3			
5 radios on separate channel			
Local TV production (in case of LOC acquiring a host broadcaster)			
News feed costs			
ITU Live coverage fee			
6 radios for Live coverage team on separate channel			
6 cell phones, one land line			
High speed Internet connection with hub			
Website			
Creation and Maintenance			
Contingency			
Other			
TOTAL PROMO & MEDIA EXPENSES			

EVENTS/SOCIAL FUNCTIONS	**VIK**	**CASH**	**TOTAL**
FINAL AWARDS BANQUET			
Facility costs			
Entertainment			
Food/Beverage			
Audio Visual Support (at least 2 big screens and projectors and microphone and podium with adequate surround sound)			
Decorations			
Trophies and other			
Transportation			
Complimentary VIP guest costs			
Contingency			
SUB-TOTAL FINAL AWARDS BANQUET			

PASTA PARTY
Facility costs
Food/Beverage
Audio Visual Support
Contingency
SUB-TOTAL PASTA PARTY
OPENING CEREMONY

Municipal Costs (i.e. street closures etc.)
Flags and flag poles
Entertainment Programme
Audio Visual Support
VIP hosting costs
Contingency
SUB-TOTAL OPENING CEREMONY
WELCOME RECEPTION (150-200 PERSONS)
FACILITY COSTS
Facility costs
Food/Beverage
Entertainment
Audio Visual Support
Contingency
SUB-TOTAL WELCOME RECEPTION
TOTAL EVENTS/SOCIAL FUNCTIONS EXPENSES

OFFICE AND ADMIN	VIK	**CASH**	**TOTAL**
Facility rental			
Furniture			
Computers/printers/photocopiers/laminators			
Internet			
Fax/Phone			
ITU Rights Fee			
ITU Timing fees			
ITU Prize Money			
ITU Accommodation			
ITU Athlete Accommodation			
ITU/VIP and athlete transportation			
ITU/VIP Welcome Gifts			
Insurance			
Legal fees			
Staff (contract & salary)			

Stationery
- letterhead
- envelopes
- business cards
- Invitations

Office Supplies
Parking
Accreditation costs
Athletes Programme Booklet
Competition supplies (swim caps/numbers)
Athlete gifts (t-shirt, bag etc.)
Athlete package expenses
Volunteer Handbook
Volunteer training expenses
Volunteer uniforms
Volunteer recognition
Staff Travel
Staff uniforms
Staff meeting expenses
Bank/Credit Card charges
Contingency

TOTAL OFFICE/ADMIN EXPENSES

SPONSOR SERVICING	VIK	Cash	Total
Sponsor package development			
Sponsor recruitment expense			
Sponsor Souvenir Clothing			
Sponsor Plaques / Appreciation Gift			
Signage			
-On Course			
-Gantries			
- Backdrops			
- Composite Boards			
- Other			
TOTAL SPONSOR SERVICING EXPENSES			

ITU CONGRESS	VIK	Cash	Total
Facility to accommodate 200 persons for 2 days (one day for set up and day of Congress)			
Audio Visual (big screen, microphones, personnel support)			

2 coffee breaks			
Lunch			
Notepads and pens for 200			
TOTAL ITU CONGRESS EXPENSES			

ITU RACE OFFICE	VIK	Cash	Total
ITU staff office for 12 persons with desks and chairs x 7 days			
ITU media office for 10 persons with desks and chairs x 6 days			
2 coffee breaks			
High speed internet for both office with hubs			
One desk top computer with high speed printer/photocopier in ITU staff office			
Stationary and office supplies			
Water and refreshment fridge			
Contingency			
TOTAL ITU RACE OFFICE EXPENSES			

COURSE SET-UP RACE OPERATIONS	**VIK**	**CASH**	**TOTAL**
Site Labour			
Police and road closure costs			
Emergency Response Department (ERD)			
Transportation - Busing if required for athletes and others			
Traffic supplies and road repair			
Communications /Radios and cell phones			
Utility hook-ups			
Internet and phone hookups			
Water Facility Improvements			
Waste management/recycling			
Bike rack construction			
Scaffold and platforms (for TV and other)			
Swim Start pontoon			
Carpet			
Cones			
Hard fencing			
Flag poles			
Podium production			
Hardware Supplies			
Lake Buoys & Markers			

Site Labour			
Electrical kits / water kits			
Rain Ponchos			
Flowers and other site dressings			
On site Rentals			
-Tables/Chairs, etc.			
-Tents			
-Flooring (vendors)			
-Air Horns			
-Red Carpet for podium presentation			
-Medical Cots, sheets, blankets, towels			
-Massage Tables			
-Fans for Medical Tent			
-Fridges			
-Medical Supplies			
-Cool down baths for medical			
-Showers			
-Toilets and toilet supplies			
-Boats			
-Heavy Equipment			
Food Services			
-Athletes			
-Volunteers			
- Media			
-VIPs (Food / Beverage)			
-Food for set-up crew			
-Water for set up crew			
-Water for Athletes			
-Sport Drink, Pop, Juice			
-Sport Bars			
-Ice			
Signage			
-Course Directional Signage			
- Way-finding signage			
-Share the road signs for public awareness			
Security			
-Security (overnight staff)			
-Security Housing			
-Storage Areas (on-site trailers)			
-Lighting/Generators/Loader			
Vehicle Expense			
-Car insurance			
-Gas			
-Rental vehicles			
-Gators			

-Golf Carts			
-Motorcycles and helmets			
-Boats			
Other Items:			
-Sound System			
-Large TV Screens			
-Maps and CAD drawings			
-LOC Timing and Scoring			
-Head Referees-Tech Delegate-Room, board, travel			
Contingency			
TOTAL RACE OPERATIONS EXPENSE			

8.2 APPENDIX 2: Operational Schedules

8.2.1 Critical Path

Concept and Committee Development	Comments	Who is responsible	Date	Tick when complete
Recruit Director of Operations				
Proposed budget set up				
Critical Paths				
Recruit Technical Operations Manager				
Recruit Venue Operations Manager				
Start Recruit Venue Team				
Start Recruit Technical Team				
Roles and Responsibilities agreed				
Vision and objectives agreed				
Forward to Director of Support Services the final needs of staffing				
Preliminary Planning				
Agenda and monthly targets set				
Provisional Event Schedule				
Course Proposal				
Venue Layout Proposal				
Technical Elements Evaluation				
Permits/ Approvals				
SKAS	Sport Key Activities Schedule			
Athletes' Estimated Race Times				
Parallel Events Layout				
Timing Companies quotation				
AG Registration Data				
Finalizing Eq List				
Elevation Tables				
Quotation on Equipment				

Planning and Implementation				
FOP Management Plan				
Preparation of Operational Maps				
Venue Planning Phase 1	Validated Functional Area Listings, Venue Block Plan, 1st FF&E & Technology Needs Assessment			
Catering Plan				
Timing Plan				
Paratriathlon Handling Plan				
Marine Operations Plan				
Medical Operations Plan				
Communication Plan				
Contingency Plan				
Transportation Plan				
Familiarisation Plan				
Venue Planning Phase 2	2nd FF&E & Technology Needs Assessment, Room Data Sheets, Detailed Venue Design, Room Layouts			
Training Sites Plan				
Accreditation Plan	Zoning, Dot Plan, Security			
Integrated Time Schedule				
TV Logistics Plan				
Aid Station Operations Plan				
Staff Manual				
Branding Plan				
Venue Planning Phase 3	Final FF&E & Tech. Allocation Plan Space by Space Bump-in Schedule, Final Venue Design Fit-out Schedule			
Venue Operations Manual				

Eq Drop Off Plan				
MDS	Main Delivery Schedule			
SOT Plan	Specific Operations Team Plan			
Rehearsal Plan				
DRS	Daily Run Sheet			
Way finding Signage Plan				
Evacuation Plan				
Photo Marshaling Plan				
Spectator Services Plan				
Traffic Management Plan/ Map				
Civil Work Report				
Analysis and Future				
Debriefing				
Detailed Report				
Transfer of Knowledge				

8.2.2 Project Plan Guidelines

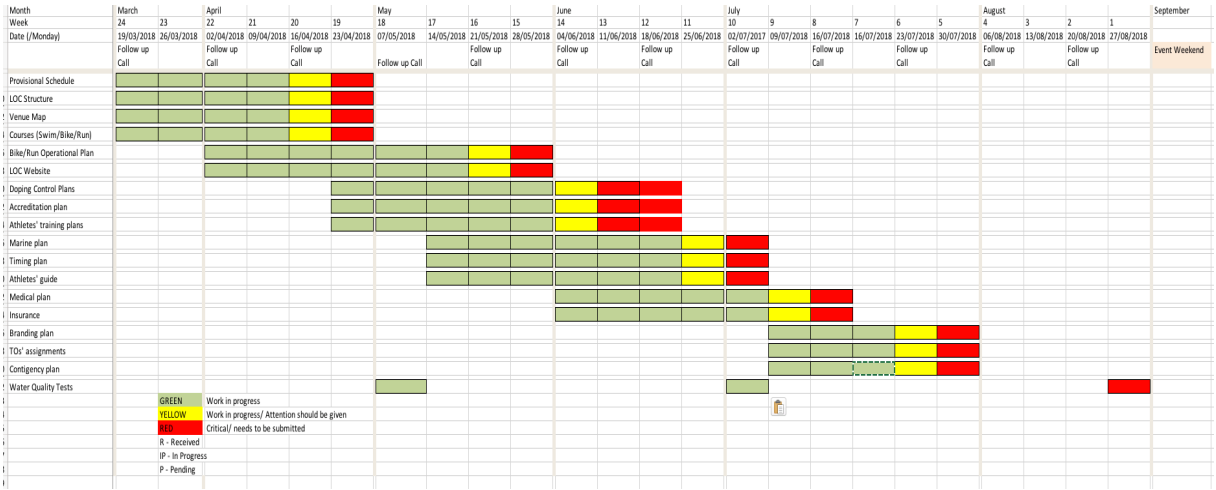
The project plan is a formal, approved document used to guide both project execution and project control. The objective of a project plan is to define the approach to be used by the LOC to deliver the event, and determine the approval timelines of the specific operational plans and deliverables by the TD.

The plan should include the below deliverables within the given timeframes:

- Provisional Schedule
- LOC Structure
- Venue Map
- Swim, Bike and Run Course Maps
- Bike and Run Operational Plan
- LOC/ ITU Website – accuracy of information
- Doping Control Plan
- Accreditation Plan
- Athlete's training Plan
- Marine Plan
- Timing Plan
- Athlete's Guide
- Medical Plan
- Insurance Certificate
- Branding Plan
- TO's Assignments
- Contingency Plan
- Water Quality Tests Planning

Please note that for WTS, WC events, Paratriathlon events and Multisport World Championships a more detailed project plan is being used.

Continental Event Project Plan Sample (ITU, 2019)



8.3 APPENDIX 3: Field of Play Signage Specifications

Course Signage for Events:

8.4 APPENDIX 4: Marine Operational Plan

8.4.1 Introduction

This plan describes in detail the swim course configuration, personnel, equipment, movements by personnel (boat, lifeguard, scuba) and other issues relevant to the operations of the Triathlon swim course (FOP), including the framework in which all functional areas (FA's) involved will operate. It has been applied to an ideal competition.

8.4.2 Competition Schedule

The competition schedule is the following:

Women's race		
	Start: 10:00	**Race venue**
	Women's final	
Men's race		
	Start: 13:30	**Race venue**
	Men's final	

8.4.3 Course Familiarisation

Familiarisation sessions are designed to allow all teams to conduct an "on the field of play" practice on the competition field:

For the swim course the following sessions are planned:

- Day 1: 14:00 – 17:00 Swim course training
- Day 2: 14:00 – 17:00 Swim course training
- Day 3: 17:00 – 20:00 Swim course training
- Day 4: 07:30 – 10:30 Swim course familiarisation
- Day 5: 07:30 – 10:30 Full rehearsal
- Day 6: 07:30 – 10:30 Swim course familiarisation
- Day 7: 14:00 – 17:00 General training

8.4.4 Staff Planning

a) Triathlon staff

For the design, creation, operation and organisation of the Triathlon swim course, the LOC have included in its plan a team who will operate under the directions of the field of play (FOP) coordinator. The technical operations manager will also manage this team, where operations involve technical issues.

The organisational plan (structure) of this team is:

b) Swim course supervisor

The Swim Course Supervisor is to ensure the following:

- Everything is in place according to ITU regulations;
- Supervise the lifeguards and scuba divers;
- Work together with ITU technical officials, medical services, doping control, sport presentation and the media;
- Attend all briefings as required;
- Inform staff about any problems;
- All staff have a copy of the event program and start lists;
- Collect all equipment and supervise set up on FOP;
- Assist with escorting athletes (onto the pontoon, exiting swim);
- All barriers are in their correct position;

- All buoys, markers, the pontoon is safe, stable and in position;
- Only accredited persons are inside the FOP;
- Team managers and media remain in their appropriate positions;
- Pontoon is marked 1 → 80 for athlete starting positions; with a pre-start line starting with one from the right facing the first turn buoy;
- Confirm with TD the official measurement for each section of the swim course and total distance is accurate;
- FOP clear for race start;
- Report to the FOP coordinator prior to announcement of athletes to the pontoon;
- Contact FOP coordinator in event of emergency;
- All equipment signed for (received) is returned; and
- Provide a post-race (written) report to the FOP coordinator.

c) Boats and their drivers
Five (5) surf boats (inflatable) will be available. The boat drivers must be aware of the rules concerning proximity to the athletes in the water (expected instruction from ITU technical official). The boats will be used as follows:

BOAT	CREW
1	Driver (swim team leader), 1 technical official
2	Driver, 1 lifeguard
3	Driver, 1 technical official
4	Driver, 1 technical official
5	Driver, 1 medical staff, 1 lifeguard

d) Lifeguards
Ten (10) lifeguards will attend the event to assist in controlling safety and direction on the Swim course (FOP).

The lifeguards are to ensure the following:
- In case of a false start carefully stop the athletes;
- Athletes round the turn buoys without cutting the course and without endangering themselves underneath the turn buoys; and
- In the event of an emergency, the chief lifeguard becomes the swim coordinator and controls the FOP. All personnel on the FOP must follow the directions of the chief lifeguard.

e) Scuba divers
A team of six scuba divers will be on the FOP to ensure the safety of the athletes from under the surface, as well as to perform a final check of the turning buoys and markers pre-race.

The scuba diving team are to ensure the following:
- Calculate exact locations for the anchors holding the buoys;
- Set up the buoys;
- Work underwater for the set-up of the anchors;
- Remove anchors and buoys after the events; and
- During the events work underwater and ensure athlete safety.

f) Jet ski drivers
A team of three jet ski drivers will be on the FOP to ensure the safety of the athletes. The jet skis will carry rescue sleds and they will interfere in case of an emergency.

g) Swim course team leader
The swim team leader is to ensure the following:

- Confirm boat crews;
- Be on the FOP during the events (swim). The team leader will be the eyes and ears for the swim supervisor;
- The FOP is clean (boats adhere to the rules);
- Work together with ITU technical officials, scuba diving team, lifeguards and the media;
- Appoint a chief lifeguard;
- Check if boats require fuel;
- Confirm entry of the 10 lifeguards on the FOP;
- Check entire FOP for hazards, marine life etc.;
- Water depth at the dive start is sufficient (minimum ~1.6m);
- Scuba diving team approve positions of turn buoys;
- Lifeguards in position for possible false start;
- Ensure all operations stay close to the FOP, as security will be in place 50m or further from the FOP;
- Provide any final instructions to lifeguards as required;
- Brief boat drivers on how to act on the FOP. Any crew member wishing otherwise the driver must contact swim supervisor for approval (of movement);
- After final athlete exits the water coordinate sweep of the FOP; and
- Liaise with scuba diving team and lifeguards and provide a report to the FOP co-ordinator. Advise the swim supervisor of reporting items.

8.4.5 Familiarisations and Competition Schedule

Various staff, volunteers and other personnel will be involved in the following schedule subject to change. These times are only a suggestion but the amount of time devoted to each activity should be adhered to.

DAY	TIME START	TIME FINISH	PLACE	ACTION	WHO IS INVOLVED
Day 1	07:30	07:45	Venue	Check in	LOC
	08:20	08:40	Venue	Entrance in the Swim Course	Swim course staff
	08:45	10:10	Venue	**Athletes' Familiarisation 09:00-10:00**	Swim course staff
	10:15	10:40	Venue	Exit from the swim course	Swim course staff
	10:45	11:00	Venue	Check-out	LOC
Day 2	07:30	07:45	Venue	Check-in	LOC
	08:20	08:40	Venue	Entrance in the swim course	Swim course staff
	08:45	10:10	Venue	**Athletes' familiarisation 09:00-10:00**	Swim course staff
	10:15	10:40	Venue	Exit from the swim	Swim course staff

				course	
	10:45	11:00	Venue	Check-out	LOC
Day 3	07:30	07:50	Venue	Check-in	
	08:10	08:20	Venue	Entrance in the swim course	Swim course staff
	08:20	09:35	Venue	(**Athletes warm up 08:30- 09:30**)	Swim course staff
	09:20	09:40	Venue	Divers on the course	Divers
	09:40	10:30	Venue	Women's competition **10:00- 12:30**	Swim course staff
	10:30	10:45	Venue	Exit from the swim course	Swim course staff
	12:15	12:25	Venue	Entrance in the swim course	Swim course staff
	12:30	13:10	Venue	Athletes warm up **12:30- 13:10**)	Swim course staff
	12:50	13:10	Venue	Divers on the course	Divers
	13:10	14:00	Venue	Men's competition 13:30- 15:50	Swim course staff
	14:00	14:15	Venue	Exit swim course	Swim course staff

8.4.6 Communication

Swim course staff will cover its communication needs through the FOP channel. The distribution of the radios (all on TR_FOP channel) will be as follow:

- 1 radio to the FOP coordinator;
- 1 radio to the technical operations manager;
- 1 radio to the swim supervisor;
- 1 radio to the swim team leader;
- 1 radio to each technical official; and
- 1 radio for each boat driver.

8.4.7 Accreditation

a) General
There will be a time when the swim course will be in lockdown and no non-event boats will be allowed to enter.

b) Procedure
The Event Organiser will put the accreditation on these boats (flag-number), recognized as:

BOAT	STICKER NUMBER	FLAG	CREW
1	1	blue with a yellow logo "ITU"	Driver (swim team leader), 1 technical official
2	2	red with white logo "Rescue"	Driver, 1 lifeguard
3	3	blue with a yellow logo "ITU"	Driver, 1 technical official
4	4	blue with a yellow logo "ITU"	Driver, 1 technical official

5	5	white with a red cross	Driver, 1 medical staff, 1 lifeguard

The boat of the broadcasters will be accredited with:

BOAT	STICKER BOAT	FLAG
6	6	yellow with black logo TV crew

The jet ski will be carrying the following flags:

JET SKI	STICKER NUMBER	FLAG	CREW
Jet ski 1	7	red with a white logo “Rescue”	Driver
Jet ski 2	8	red with a white logo “Rescue”	Driver
Jet ski 3	9	red with a white logo “Rescue”	Driver

Only these accredited boats and jet skis listed are permitted to move within the secured perimeter during familiarisation, and competition hours.

8.4.8 Set-up of FOP

The director of operations and swim course coordinator will commence measurement of the course using instruments of accuracy. They will make depth, distance and accuracy measurements.
The TD will work with the director of operations to make sure that everything must be in place by a set date. The swim course team will place warning lamps on the signals during the whole period that the signals and the buoys remain in the water. For the set-up of each buoy they will use sand anchors connected with the buoys by chain and elastic rope, for best stability. Under each buoy lead weights will be placed for best floatation. A platform will be used in the water to transport and install equipment.

8.4.9 Operation Plan

The swim team leader will be on the FOP, in the same boat with a technical official. The swim coordinator will remain on the pontoon during the competition, assisting with the control of all movement on the swim course.

a) Check-in, meeting point and embarkation

All staff should be in position 10’ before the start of their duties.

b) Leaving of the pontoon
Photographers willing to be on a boat:

- Women’s competition
  - Photographers on board
  - Exit from the boat prior to the end of the first lap
  - Exit from the boat after the end of the swim leg
- Men’s competition
  - Photographers on board
  - Exit from the boat prior to the end of the first lap
  - Exit from the boat after the end of the swim leg

c) Location of boats before the start

Boat	Label	Location
1	ITU	Behind the photographer's pontoon in-line with start
2	RESCUE	Inside first turn buoy
3	ITU	Inside second turn buoy
4	ITU	Inside third turn buoy
5	MEDICAL	Outside of FOP in the middle of the third leg of the swim course
6	TV Crew	Inside of FOP close to first leg red marker (small buoy)

d) Location of paddle boards/canoes before the start

Paddle Board	Location
1	left side of swim channel 30m beyond end of photographer's pontoon in case of false start
2	left side of swim channel 30m beyond end of photographer's pontoon in case of false start
3	Left side of swim channel 30m beyond end of photographer's pontoon in case of false start
4	right side of swim channel 30m beyond end of photographer's pontoon in case of false start
5	Inside first turn buoy
6	Inside second turn buoy
7	Inside third turn buoy
8	Inside fourth turn buoy

e) Location of scuba divers before start

Scuba Diver	Location
1, 2	15m from the start line
3, 4	Turn 1
5, 6	Turn 3

f) Location of jet ski before start

Jet ski	Location
1	Outside the FOP at the second leg
2	Outside the FOP at the third leg

3	Outside the FOP at the fourth leg

g) Movement in case of a false start
If a false start is signalled by the Head Referee with repeated sounds of the start horn, the 4 paddle boards 30m from the start will move to a line in front of the athletes, with all boards side on. Lifeguards will prevent the athletes from moving past this line without creating harm. If any athletes appear to be not stopping, lifeguards must approach from side on, not front on.

When returning to the pontoon start, athletes must move to the end of the pontoon closest to the shore, where steps are located. Athletes will return to their start positions under instruction from the ITU technical officials.

h) Movement during the race
Craft/personnel on the swim course will observe the following movement patterns:

Craft	Label	Movement
Boat	1	Move into swim channel and remain at the back of the field. Observe movements of all craft and general FOP. Can follow field around turn buoys.
Boat	2	Remain in position
Boat	3	Remain in position
Boat	4	Remain in position
Boat	5	Move in case of emergency
Boat	6	Move alongside lead athletes inside FOP.
Jet ski 1	7	Move in case of emergency
Jet ski 2	8	Move in case of emergency
Jet ski 3	9	Move in case of emergency
Paddle board/ canoe	1	Follow lead pack inside FOP. Must move inside turn buoys.
Paddle board/ canoe	2	Follow second pack inside FOP. Must move inside turn buoys.
Paddle board/ canoe	3	Follow towards back of field inside FOP. Must move inside turn buoys.
Paddle board/ canoe	4	Chance place and remain in position
Paddle board/ canoe	5	Remain in position
Paddle board/ canoe	6	Remain in position

Paddle board/ canoe	7	Remain in position
Paddle board/ canoe	8	Remain in position
Scuba team	1,2	Remain in position
Scuba team	3,4	Remain in position
Scuba team	5,6	Remain in position

- All boats must move inside the FOP with minimum speed;
- Boats must ensure a minimum distance of 10m from the athletes;
- Paddle boards/canoes following the field must remain between the boats and the athletes, ensuring where the TV boats travel not to obstruct TV/camera footage;
- Paddle boards/canoes on turns or markers must have the nose of the board pointing in towards the buoy and ensure athletes are not swimming behind or into paddle craft;
- Paddle boards/canoes will not lead athletes at any stage of the race. They must remain on the side of athletes unless emergency circumstances determine otherwise;
- Any boats (other than boat 1) wishing to cross sides of the FOP can only do so from behind boat 1 and with permission from the swim coordinator;
- Boats 6 and 8 must turn inside the turn buoys and not impede the 20m restriction zone (between any athletes and boat). Paddle boards/canoes will be 10m from the athletes, boats will be 10m from the paddle boards/canoes; and
- For the second lap, boats 1,6,8 and the canoes/paddle boards 1,2,3 can move with the athletes until the red mark buoy of the last leg and then can move around the pontoon and follow the athletes again, following the same route with minimum speed.

i) Movement in case of emergency
In case of an emergency, the only boats which should be near the area, are medical (5), rescue jet ski and ITU (1). All other boats must move away (or follow the directions of the CL). The jet skis will be chosen to carry the athletes outside the FOP. Any boat/jet ski which renders assistance to any athlete under emergency circumstances will then proceed to the rescue area, on the left-hand side of the venue where the ambulance has access.

j) Movement in case of mechanical problems
If a boat is to experience mechanical failure during the competition, it must be anchored immediately. In the event the boat with mechanical failure is the medical team or lifeguard team, a transfer of personnel between boats must be managed by the swim team leader.

k) Movement after the end of the swim course
The red marker on the last leg of the swim course, closest to the pontoon on return to shore, signals the end of any boat, paddle board/canoes or scuba movements. Any boats or board paddlers reaching this point must ensure the last athlete has passed, before coming to the pontoon.
Personnel remaining in position during the competition must do so until signalled to move via radio or whistle from swim team leader (boat 1). All boats, all paddle

board/canoes lifeguards, jet skis and scuba divers will return to the area behind the VIP lounge.

8.4.10 Swim Course Staff Education

This procedure includes 3 parts, the specific theoretical education of volunteers, the training of swim course staff, the familiarisation of the swim course staff and the simulation.

a) Theoretical education
The theoretical education will be specific education of the sport's volunteers. All the paid staff will give the volunteers their specific directives and they will interpret their competences precisely for them.

b) Practice
There will be a number of training sessions for the swim personnel. The following issues will be discussed:
- Movements of boats for the embarkation of all the clients;
- Location of all staff just before the start;
- Movements in case of a false start;
- Movements at the duration of the race;
- Movements in case of emergency;
- Communication with radios; and
- Movements after the end of the swim course.

c) Familiarisation and Simulation
During swim course familiarisation and venue simulation where all staff can practice on the FOP, the following working inside the swim course in the following subjects:
- Movements of boats for the embarkation of all the clients;
- Location of all staff just before the start;
- Movements in case of a false start;
- Movements at the duration of the race;
- Movements in case of emergency;
- Communication with radios; and
- Movements after the end of the swim course.

The familiarisation will take place with the help of athletes, who will simulate their positions in these subjects.

8.4.11 Availability of Staff

The tide which exists in the swim area may create problems to the set-up of the equipment. Accordingly, sport will have several staff available on a daily basis to assist with monitoring the equipment. After the closing hours of the venue, staff will be present on the venue in 30-minute maximum shifts from the alert call, when their assistance is expected.

8.4.12 Pack-up of FOP

Immediately following the medal ceremonies of the men's event, sport will commence the packing up of the FOP, including all swim course equipment. This operation must be finished by the end of the day.
Concerning the swim course, the swim course coordinator, the swim course team leader and the divers will remove all the equipment. These equipment items will be brought to sport equipment containers, where the sport equipment coordinator will collect them.

8.4.13 Swim Area Cleaning

Primary responsibility for cleaning the swim area rests with the contractor of the clean and

waste (CLW) functional area. Eight boats will be on side from sports' side, which can act in case of pollution. All staff and contractors will be requested to assist CLW by avoiding littering the area. In the event of any jelly fish or other marine life potentially causing unrest or danger with the athletes, CLW will be requested to enter the secured perimeter by sport through security to remove.

8.4.14 Contingency Plans

The principle strategy to deal with problems such as weather, pollution, protest, etc. is delay or postponement of competition. If a serious problem does occur, it is most probable the requirement for the marine facilities will be extended. All contractors and authorities should have plans to extend the period of operation for up to 4 hours on competition day, including the possible rescheduling of the competition to another day.
Reports are received daily from the meteorological department. This information, including direct from local weather station, assists with preparation.

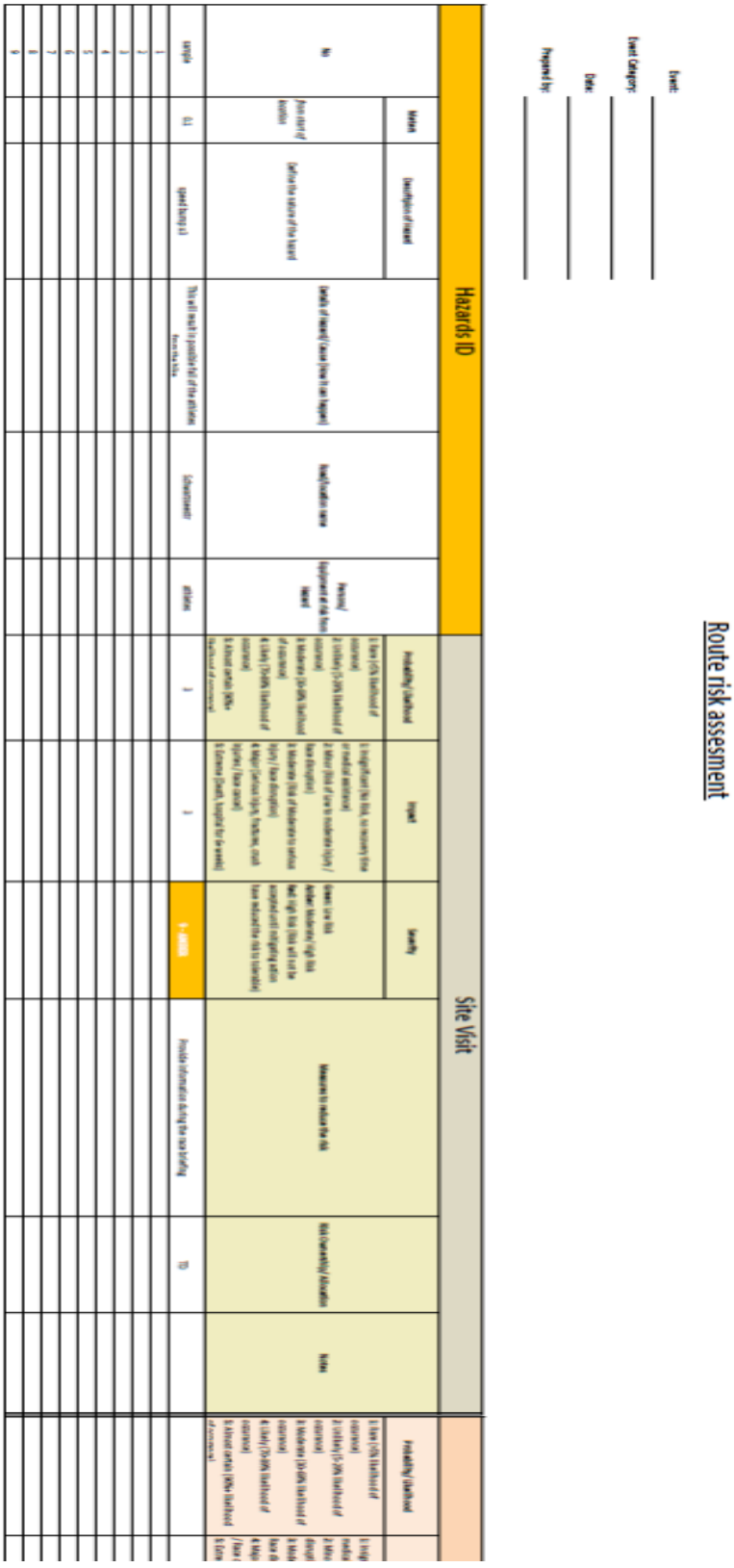
8.5 APPENDIX 5: Detailed Activities Schedule

Venue operations, technical operations- Sample.

Detailed activities schedule- (venue operations, technical operations)		
Friday, June 06, 2008		
Time	**Activity**	**Who**
Starts / **Ends**		
4:00 / 5:30	Swim Course Set Up & Tear Down	Swim Course Set Up Team
4:15 / 4:30	Team Meeting with the Key Players	
4:30	Radio Distribution/ VCC Operational- Return	VCC Team
4:45	Accreditation Zone Activated	Security
5:00 / 6:45	Hay bales distribution, Cones/Tubes on the Course	Sport Equipment Team
5:00 / 6:45	Aid Stations Set Up, Signage, Pedestrian Crossing Ropes	Sport Equipment Team
5:00 / 7:50	AG Transition Open base on the Waves	Services/ AG TZ Team
5:00 / 11:00	Athletes' Lounge Opens	Athletes Services
5:00 / 20:30	On Site Bike Mechanic Centre	Bike Mechanics Team
5:30 / 6:45	Hard Fence Set Up	Contractor
5:15 / 5:45	FOP Volunteers Check In/ Food distribution	All
5:15 / 6:30	Installation of Scrim on the Course	Look & Image Team
5:30 / 11:00	Road Closures (Stanley Park 05:30 to 10:30)	Police/ Traffic Management Company
	Athletes' Warm Up	Unsupervised Area
5:45	Volunteer Buses Arrive at the Volunteer Tent	Contractor
6:00 / 8:20	Athletes Line Up at the Call Room per Wave	Start Zone Team
6:00 / 6:15	FOP Volunteers Drop Off by buses	Contractor
6:00 / 6:15	FOP Contingency Planning	FOP Supervisor
6:00 / 10:30	Moto drivers Arrival	Transportation Team
6:00 / 11:00	Medical Staff in Position	Medical Team
6:00 / 11:30	Ambulance in Positions	Ambulance
6:15 / 10:30	Medical Liaison Vehicle Available	Transportation Team
6:15	FOP Lock Done (Close the intersections, residential parking)	Bike Course Team
6:15 / 6:20	Photo Boat & TV Boats in Position	Swim Course Team/ Start Zone Team
6:15 / 8:45	Lifeguards on water and in position	Lifeguards
6:30	Volunteer Buses parked at 2nd Beach Parking Lot	Contractor
6:30	Athletes' Race Start	

6:30	8:45	Swim Discipline Duration	Swim Course Team/ Start Zone Team
6:30	10:30	Start Zone Coordinator, Swim Course Coordinator, TZ Zone Coordinator are reporting the movement of the First & Last Athletes: **This is (coordinator), fist athlete completed …leg, moves to…leg**	Start Zone Coordinator, Swim Course Coordinator, TZ Zone Coordinator Finish Coordinator
6:30	10:30	Escort Fist & Last Athlete Per Leg	Bike & Run Team
6:35	6:45	Transport Bus drivers from 2nd Beach to English Bay by golf cart	Transportation Team
6:40	9:45	Bike Discipline Duration	Bike Course Team
6:40	9:45	Team ready at Causeway R/B for Emergency Ambulance Access	Sport Equipment Team/ Bike Course Team
7:00	8:00	FOP Team water distribution, by ATV	Transportation Team
7:15	10:30	Run Discipline Duration	Run Course Team/ Aid Station Team
8:30	11:30	AG Transition Check Out	Services/ AG TZ Team
9:00	9:15	Transport Bus drivers from English Bay to 2nd Beach by golf cart	Transportation Team
9:30		Volunteer Buses depart from Parking Lot	Contractor
9:45		Open Fence from the Interaction & Residential Parking, starting from the Bike Course	FOP Team
9:45		Buses pick up Volunteers from the FOP, starting from the bike course. They have to wait at the 2nd Beach and come to the Venue through Stanley Park Drive & Beach	Contractor
10:00		6 vehicles will enter Stanley Park from the S/B Causeway (Downtown to North Shore) at 10:00 (after the end of the bike leg and prior to the public opening)	Special Operations/ Transportation Team
10:30		Open Fence from the intersection & Residential Parking	FOP Team
10:30		Aid Stations, Signage, Tear Down	Sport Equipment Team
10:30		Tear Down Fence	Contractor
10:30		Tear Down Scrim	Look & Image Team
10:30		Hay bales, Cones/Tubes on the Course, Tear Down	Sport Equipment Team
11:00		Venue Meeting with Key Players	

8.6 APPENDIX 6: Risk Assessment Form



8.7 APPENDIX 7: Run Course Measurement Manual

8.7.1 Introduction

This document is based on the contents of the International Association of Athletics Federation (www.iaaf.org) and the Royal Spanish Federation of Athletics (www.rfea.es), with the necessary adaptations for the Spanish Triathlon Federation.

The official measurement of the run course will only be certified by the Technical Delegate or by an official appointed by him, on the assumption of "zero tolerance" in the measurement. The exact distance must be notified at the pre-race briefing.

The distance must be measured, in all distances, in the shortest possible course a competitor can follow inside the course.

We will follow two measurement procedures to create the validation or certification of a race:

- The ***'route'*** procedure is used when plotting the track of a course. Here we will monitor the run course with the LOC. Take note of the turns if it is a winding course;
- We need to know if we will be able to make use of the whole pavement or only part of it;
- If the 'route' procedure is done properly, we will get a perfectly measured course; and
- The process of ***'measurement'*** is used by the 'measurer', who is the person appointed to check the length of the course for validation.

For this we will use the ***measuring wheel***. It is necessary to validate the calibration of the wheel of measuring. We will use a metric tape of at least 25 meters, and we measure this distance with the wheel.

8.7.2 Run course definition

This one is the most important step now of measuring a course. Before we could measure something, we must know what to measure and it is necessary to know what sections of the course will be available for the athletes. Will they have the complete street from sidewalk to sidewalk? Will they run from the right or from the left side? Will the whole course will be over asphalt?

If it is hoped that the athletes go on one side of the road or way, this can cause uncertainty at the moment of measuring the corners or pronounced (marked) curves. The exact course should be defined by fences the day of the course about every restricted corner. It is a responsibility of the official in charge of measuring to indicate the above-mentioned fences with accuracy. The result of the work will be a map that shows the complete course of the race. The map must be the sufficiently good thing in order that a stranger, using only the map, measures exactly what has been done before. If the tour has many restrictions, these must appear clearly in the map.

8.7.3 Make it simple

The easiest way to define a course is to assume that the triathletes will have access to the road or path in full.
But, if the course has many restrictions and fences, it can prove short if the LOC omits or misplaces the fences. So, it is important to make the course as simple as possible.

8.7.4 The shortest possible course

Once the limits of the run course have been determined, we are ready to measure. ***The measured course must be the shortest possible one*** inside the limits of the running course. We must follow the imaginary straight line when measuring. This is the correct path to follow. This means we must measure by getting close to the turning interior borders.

We have to take into consideration the start of the run course, that for us will always be the ***middle point of the width*** of the start gantry (duathlon, cross duathlon, aquathlon, winter triathlon) or the middle of the mount line of the transition area (all triathlon disciplines). In case of two transitions, the start of the run course is considered to be 5m in front of the last bike rack (all triathlon disciplines).
The measured track must be 0.3m from the curb or the outer part of the course. Try to keep this distance in turnings and corners. We suggest walking close to the curb, and keeping the wheel with the opposite hand.

8.7.5 The run course map

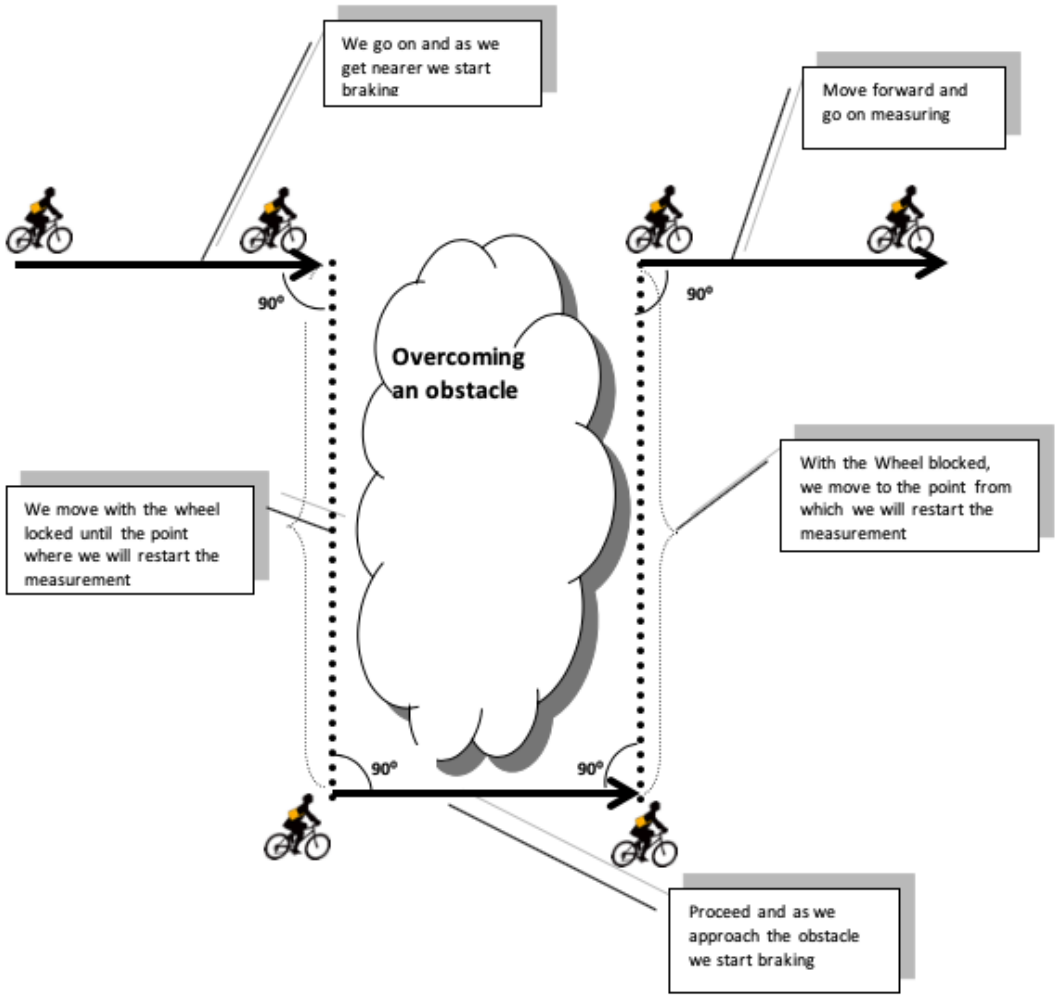
We need to report our measurement and if this is not done in the correct way, the measurer will be the only person who knows it, where it starts or finishes. Spray paint the ground is not enough. The map must be good enough in order that the technical delegate or the organizer could return to plan the course, even if roads are going to be paved again.
Drawing a map is as important as measuring the track. The purpose of the course is to give information. It must show the route in a clear manner, with all the streets, roads and paths the course makes use of.
The map must show clearly the route of the course and all the streets, roads or ways that it uses. Include all the notes that are necessary to have a totally clear route. The maps generally are not shown to scale. The portions can be longer or sorted to show the details.
The map must describe the positions of the exit, the finish area and any turning point, also the last kilometre (optionally the last 500m), as well as the locations of the aid stations and signs of 200m distance to them, using the marked distances with tape. These descriptions must be sufficiently clear as to allow a person unfamiliar with the original measurement could replace with accuracy the points, even after the road had been paved and had eliminated all the marks that they had put down.
If a tour has been planned so that the athletes could use the whole road, causeway or way, the map will be easier to draw.
If the route is restricted (the whole road is not available) the map must show with accuracy how it must guide to the athletes towards the right course.

8.7.6 Measurement equipment

a) Measuring Wheel. In good condition and preferably has a brake.
b) Calculator. More reliable one using batteries when measuring in darkness.
c) Notepad, pen, etc. A pocket-sized notebook, pen and pencil.
d) Highlighter pen or chalk.

8.7.7 Compensation manoeuvres

Always try to keep yourself in the correct measurement line. Now and then there will be an obstacle in the course, so try to turn off to avoid it. This way the measurement will not be considerably affected. You can also use a compensation manoeuvre (see diagram) to surround the obstacle.
If the obstacle takes a long straight part of the course, simply make a gradual movement to one side to surpass it. If there is a car parked in the interior of a bend, get to the bumper, block the wheel or look at the mark and move to a side until you go have a free space in front. Now, roll the wheel until you go past the car, block it again or look at the mark, place the wheel towards the correct line and continue with the measurement.


We go on and as we get nearer we start braking
Move forward and go on measuring
90°
90°
Overcoming an obstacle
We move with the wheel locked until the point where we will restart the measurement
With the Wheel blocked, we move to the point from which we will restart the measurement
90°
90°
Proceed and as we approach the obstacle we start braking

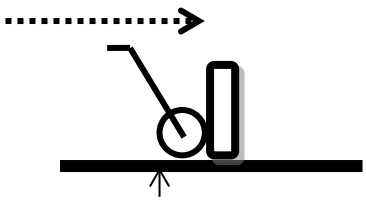
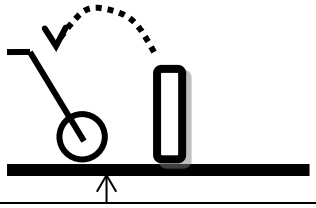
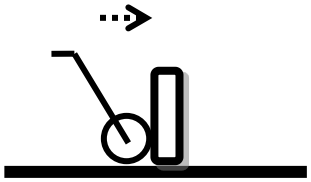
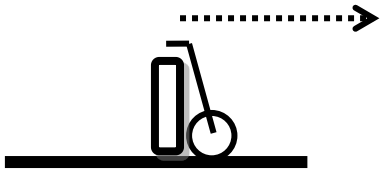
8.7.8 Measuring non-asphalt surfaces

Walk more slowly when it is an uneven surface to avoid the bumping. Try to slide the whole wheel surface. Here the measurement will be slower.

8.7.9 Undefined roadsides

Sometimes roadsides are eroded or in bad condition. Use your common sense to decide which the shortest available path for runners is. This applies to measurements in cross duathlon and triathlon.

8.7.10 Measuring through a gate or fence

• Stop at the gate or fence • Mark on the floor the back of the • wheel • Block and lift it	**(1)** 
• Place the front of the wheel on the mark and unlock the brake	**(2)** 
• Move forward with the wheel until the gate, block and lift the wheel	**(3)** 
• Place the wheel on the other side • of the gate • Put it in such a way that the back • of the wheel touches the gate • Unlock the brake and restart the measurement	**(4)** 

8.7.11 Signs must be placed on the course

FINISH **1Km**	**AID STATION** **200m**

8.7.12 Different cases according to modalities

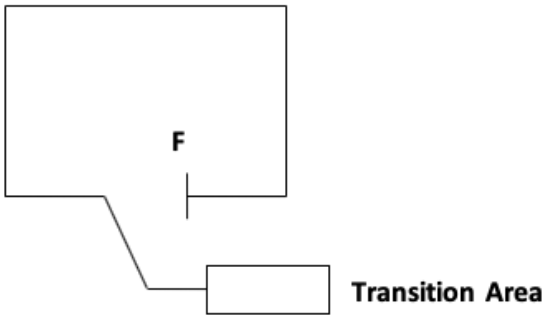
Three main groups:

a) Triathlon, winter triathlon and cross triathlon.
b) Duathlon, cross duathlon and aquathlon.
c) Relay

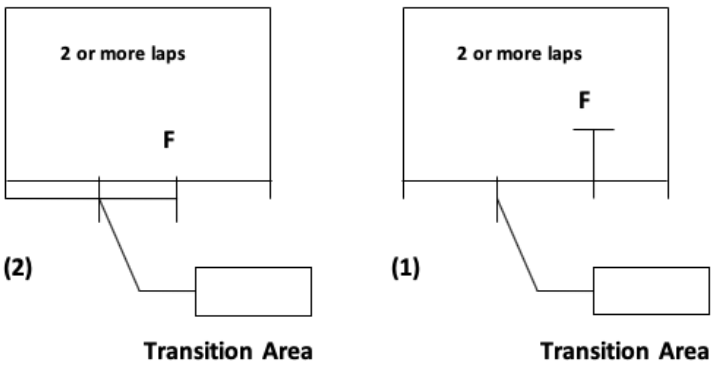
8.7.13 Special conditioning factors

In triathlon, the course to be measured goes from halfway in the transition area to the finish line.
Here, we can have two situations:

a) **ONE LAP RUN COURSE**, that is, we go out of the transition area and end on the finish line.



b) **MORE THAN ONE LAP RUN COURSE.** After leaving the transition area we will have a course which, after doing the necessary laps, we will abandon to enter the home stretch (fig. 1) or direct to the finish line, in which case the finish is part of the circular racetrack to be measured (fig. 2).

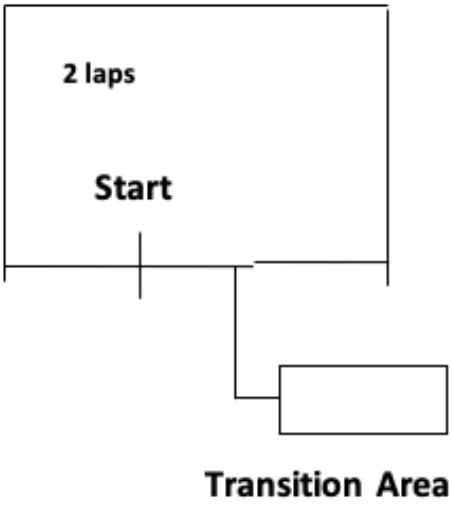


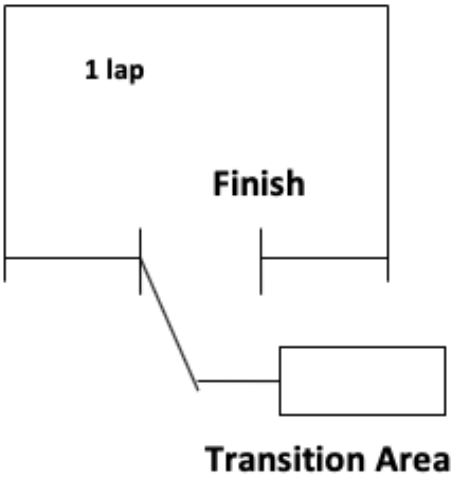
In both cases the distance of each lap needs to be measured and added to the distance there is from the transition area to the course and from the course to the finish line. Once these distances have been added, we will need to adjust the racecourse so that it has the established measurement.

8.7.14 Duathlon, cross duathlon and aquathlon

In duathlon, we can find different situations:

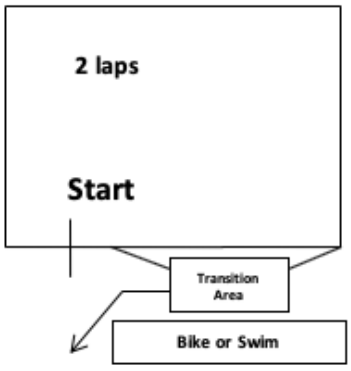
a) **The first and last segments are using the same course but different number of laps**. In this case, only one lap should be measured.

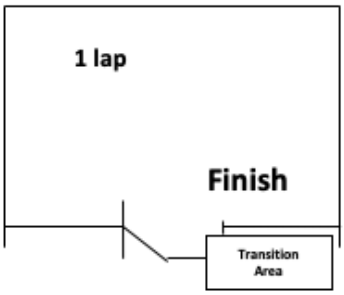




It is very important to measure the distance there is between the end course until the transition area and the distance from the transition area to the entry in the course since the higher these distances, the bigger the adjustments in the run course.

If the transition area is placed race wise, we could alleviate these last considerations as the measurement would not be virtually altered.





The 1st and 3rd segments in distinct courses. In this case both courses will be measured independently.

8.7.15 Mixed Relays

In relay competitions, we must consider two areas: The ***Mixed Relay Area*** and ***Finish Area***. Two situations can occur:

a) **Both areas can have the same location**: In this case, the measurement will be the same for the three laps.

b) **The Mixed relay area and the Finish area are in different places**: In this case, we will go through the following premises and in the order specified below, where, if the first premise cannot be accomplished we will go to the next one:

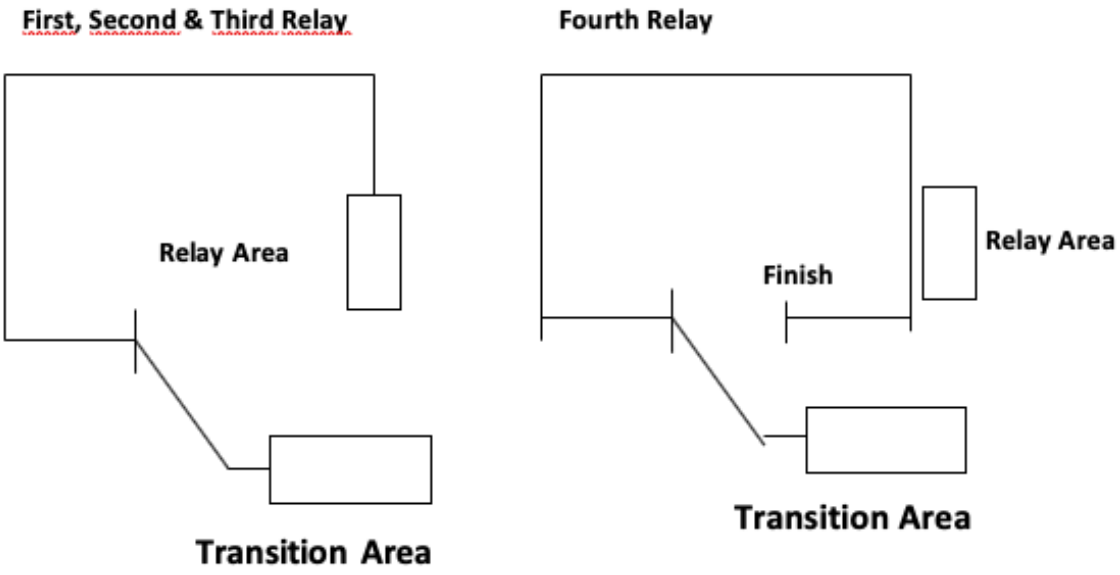
- That the distance to the mixed relay area from the point we leave the run course, will be the same as from that point to the finish line. For this to be feasible we have to be flexible to set up both areas (relay and finish).
- Taking the last relay adjusted to the rules as the exact measurement, we assume a 5% tolerance above or below that distance, in which case, none of the measurements would be adjusted. That means that we could have **2,000m** for the last relay, and the first and second could be between **1,900m and 2,100m**
- That the difference be between 5% and 10%, in which case we would adjust the turning point so that the difference is below that 5%.
  - Relay 1,2 & 3 = 1,850m
  - Relay 4 = 2,000m
  - **2,000m – 1,850m = 150m / 6 = 25m**

We would move the turning point **25m** further so that they would do: **1,900m + 1,900m, + 2,050m** (within the 5% tolerance margin)

- Relay 1,2 & 3 = 2,150 m
- Relay 4 = 2,000 m
- **2,150m – 2,000m = 150m / 6 = 25m**

We would bring the turning point **25m** nearer, so they would do: **1,100m + 2,100m + 1,950m**, (being within that 5% tolerance margin)

- Never should the difference between the two courses be over 10%

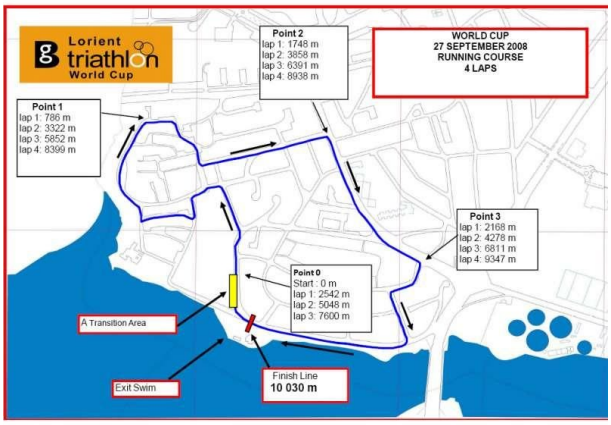


The measurement will be done from the middle of the mount line of the transition area to the entrance of the relay area (for the first three relays) or finish area (for the last relay).

8.7.16 Adjusting the measurement

Once the measurement is done we have to proceed to adjust it. Basically, we will encounter three possible situations.

a) **One loop course** where we will have the entire road/street used for the course. The adjustment here is quite complex.



b) **Out and back course.** This is the case where using a two-way road/street, one lane is used to get to the turning point and the opposite lane for the way back. In this case, we will adjust the turning point.

c) **Mixed course.** This is a mixture of the previous two, with common parts and unique parts. One of the turning points must be adjusted.

In all the situations, the adjustment of the measurement will be done in that place where we can make the adjustment and that is usually at the far end of the run course, although sometimes it is necessary to move the finish gantry or the exit of the transition area. For that, we must study beforehand all the possible situations in relation to the kind of competition, make accurate measurements and finally adjust them to the established measurements.

8.7.17 Example of a real case

(2008 Pulpí U23 European Championships)
The measured course is marked with red arrows, the green arrow is the entrance to the finish area on the last lap. The marks shown correspond to the first measurement made after the course had been agreed on and when we know how much of the road is going to be used. Several marks are made that will be a reference for possible changes, in case we had to alter the course if the measurement we get is far from our purpose, which in our case is 10,000 m (4 laps to the course).

We must consider that our most important reference point is the mark made at 2,260.9 m, since it is at this point where the course splits into two and one can go to do another lap or go to the finish gantry.

The distance from that point to the finish gantry is 85 m.

Therefore, the final measure of the course is:
2,571.1m + 2,571.1m + 2,571.1m + 2,260.9m + 85m = 10,059.2m

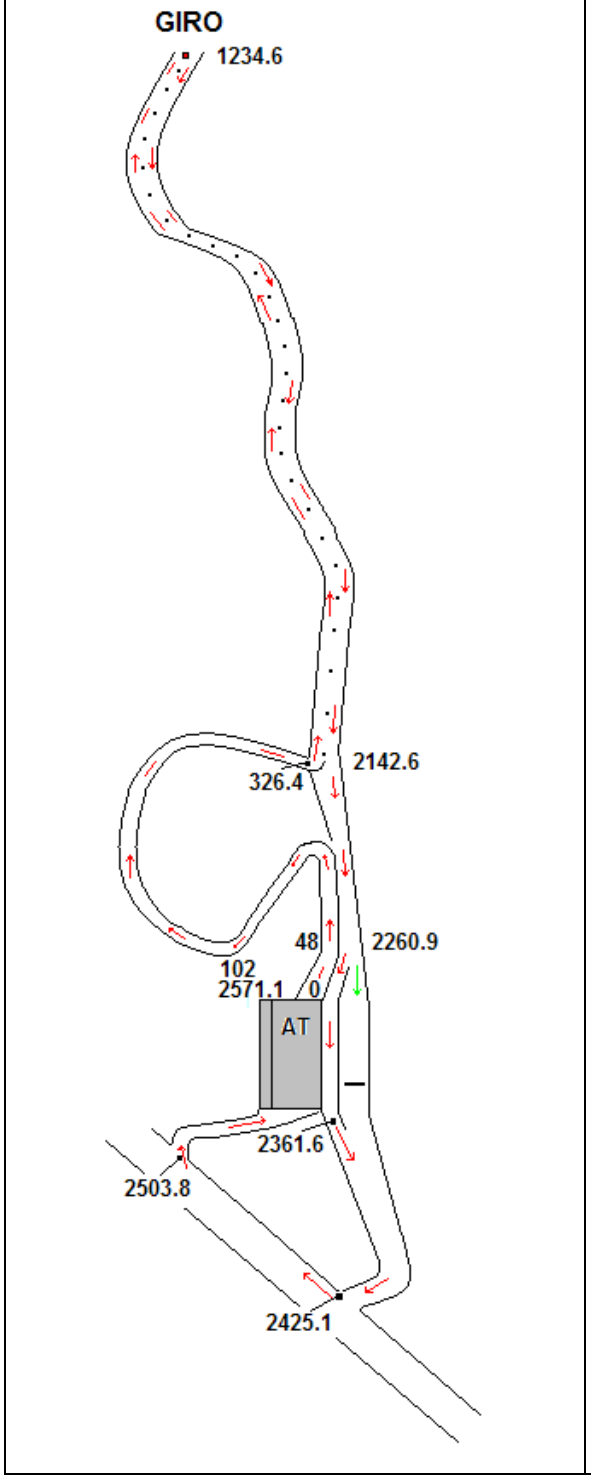
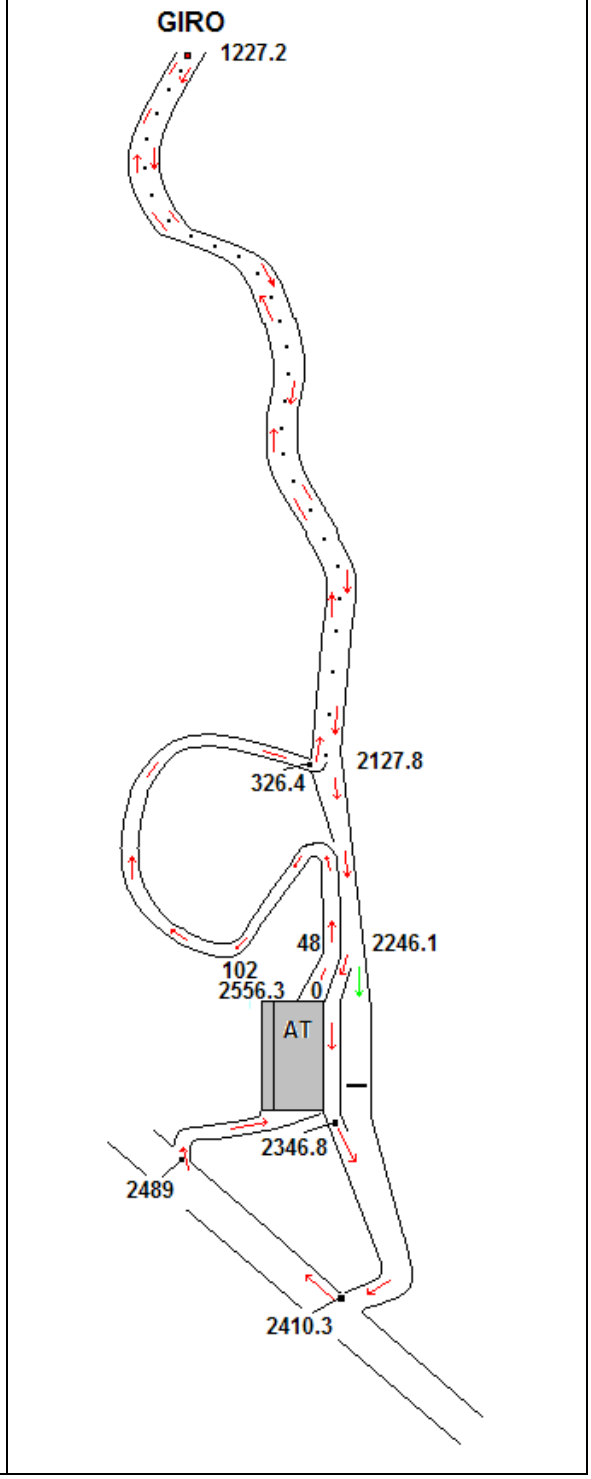
These calculations make us see that we have gone 59.2m far, so we must get the turning point nearer, but how near?

The obvious thing is to divide that distance between 4 (4 laps), so we get 59.2 m / 4 = 14.8 m
Therefore if we get the turning point 14.8 m nearer the problem would be solved, as this way we would have the 10,000 m we want; BUT LOOK OUT, it is a turning point. If we get it 14.8m nearer means that we have to adjust it to: 1,234.6 m – 14.8 m = 1,219.8m

What happens with the subsequent marks? Do we have to take away the 14.8 m? NO is the answer. We have to take away double 29.6 m, as I am taking away the 14.8 m to get to the initial turning point and the 14.8 m to get back from the initial turning point to the desired turning point, so in this case our course would measure:
2,571.1m – 29.6 m = 2,541.5 m and 2,260.9 m – 29.6 m = 2,231.3 m
2,541.5m + 2,541.5 m + 2,541.5 m + 2,231.3 m + 85 m = 9,940.8 m

Now we can see that our course is nearly 60 m short. If our aim is to take away 14.8 m, we will have to bring the turning point (half that distance) nearer, that is 7.4m, and the result will be:
2,571.1 m – 14.8 m = 2,556.3 m & 2,260.9 – 14.8 m = 2,246.1 m

Result:
2,556.3 m + 2,556.3 m + 2,556.3 m + 2,246.1 m + 85 m = 10,000 m

BEFORE ADJUSTING	AFTER ADJUSTING
	

8.8 APPENDIX 8: Sports Equipment List

Equipment	Description
Athletes bags	For putting their things inside the athletes' lounge.
Athlete's number stickers	For the helmet of the athletes
Athlete's number stickers	For the bike of the athletes' Two of the same numbers in each edge.
Athletes' t-shirts	For the athlete's package
Bag with sand	To secure the barriers
Barrels	For the aid stations.
Barrier tape	For securing the whole FOP.
Barriers	For securing the whole FOP.
Baskets	Baskets for the transition area.
Bell with base	Bell to announce the last lap
Bibs	Number decals for the body - tattoo type for the legs and arms
Bike racks	Bike racks for the transition area.
Bikes	Mountain bike, medium and large size for the TOs
Binoculars	For sighting the course and athletes.
Blocks	For setting up the swim course.
Boat flag	Boat flag, white with a red-cross.
Boat flag	Boat flag, blue with an "ITU" logo
Boat flag	Boat flag, red with white logo "Rescue
Boat flag	Boat flag, yellow with black logo "Photo",
Boat flag	Boat flag, yellow with black logo "TV Crew",
Boat flag	Boat flag, white with black logo "Measurer",
Boats	4m long boats with engine of 50HP. The boats are for following the athletes during the race and for providing service for Press and TOs.
Brooms	Brooms for cleaning the FOP
Buoys	Small size buoys for the swim exit chute.
Buoys	Roller buoys 5m long X 1m diameter.
Buoys	Roller buoys 1,8m long X 1m diameter.
Buoys	Tetrahedron buoys 1,2m long X 0,7m diameter.
Buoys for marking	Red color marking buoys for the swim course.
Buoys pump	To put air inside the swim course buoys.
Carpet	Red carpet for creating the mount and the dismount zone. (3m X 15m) if we use carpet for this it should be orange
Carpet	Used for the passage way between the swimming finish and the transition area, and within the transition area, and before and after the finish area (chemical-fibre carpets, blue color, 3 meters wide)

Bike pumps	To put air into athlete's tires.
Cones	For separation on the FOP.
Coolers	Coolers for the volunteers on the FOP.
Dolphin spine boards	As in the medical requirements
Double face tape	For securing the carpet
Electronic measurer	For course setup
False start system	As per requirement
White Finish line tape	Double sided finish line tape. (5m X 300mm)
Flags	Yellow flags
Flags	Red flags
Frames	Frames for the signage.
Gantry	Used as a symbol of the final finish
Garbage bags	For garbage collection during set up and during the event.
Gauge	Wind measurer
Gauge	Electronic water temperature thermometer
Generators	4 generators
Gloves	Plastic gloves for the aid stations and removing the timing chips.
Golf car	2 with a trailer for movement of equipment and supplies before and during competition
Golf car	2 seater for officials and mobile medical personnel
GPS	Measurer for measuring the distances of the swim course.
Helmets	Helmets for the bikes
Helmets for motorbikes	Opened face helmets in different sizes
Horn	4 manual air horns.
Inflatable arches	For mount- dismount line and prime lines
Inflatable pillars	Pillars 3.5, high, perimeter 1m
Km marker	For marking the kms, set of 10
Laser measurer binoculars	For measuring the course
Lead weights	Lead weights for the buoys
Life - buoys	Buoy with rope, licensed by the lifeguards IF
Life jackets	For the lifeguards
Lifeguard's Poles	Poles for the lifeguards.
Lifeguard's swimsuit	Special swimsuit for the lifeguards in different sizes.
Lifeguard's whistles	Plastic whistle without ball Fox 40 type with rope
Lifesurf boards	From poliethilenium and inside foam. Length 2.90- 3,0/ width 0.90- 1.0/ mass 215-220 lt/ weight 18-20 kgr. Keel, fin, and a hall at the prow.
Mats	Protection mats for the FOP, with the dimension of 2m x

	1,2m x 150mm
Mobiles	mobile phones for LOC/ITU Staff and ITU Media
Motorbikes	Mopeds (scooters over 125HP)
Motorbikes	More than 750cc, street bikes for the tv crew and the photographers
Number id	Stickers for the motorbikes
Paratriathlon handlers' vest	As per requirements
PA system	For making announcements
Paint sprays	White color sprays for road markings.
Paints sprays	Red color sprays for road markings.
Physiotherapy beds	Physiotherapy beds for the athletes' changing rooms.
Poles	Poles for the signage.
Poles' bases	Bases for the signage poles.
Pontoon	Used for the swimming start (usually grouped by small plastic boxes to be a mobile dock, with 70 meters long and 4 meters wide)
Radios	85 for all areas as per radio protocol document
Rakes	Rakes for cleaning the swim area
Rope	0.008m polyester
Sawdust	Sawdust to clean the FOP from oil (sackful)
Ladder	Aluminum ladder for the pontoon for the athletes to be able to exit the water in case of a false start.
Score Board	For the spectators
Screws	For stabilisation of the bike racks to the ground
Signage (all signage needs to be according to our EOM	For direction and information
Spade	Small size spade
Stage	For awards
Swim caps	For the athletes use during the swim.
Swim half way & exit ramp	5M wide X 5M long for having the athletes come out of the swim course during the swim
Tables	For athletes' lounge, official lounge, volunteer lounge, media center, VIP area, anti-doping area, wheel stops, aid stations.
Duck tapes	For ambush marketing
Tape measurer	To measure distances on the FOP and inside the Transition Area.
Tenoros start system	For the athletes start
Tents	As required
2000 Tie wraps	All sizes for course set-up.
Tool box	Toolbox with different type of tools for the FOP setup.
Towels	For training. One-off.
Turbo surf rescue sled and jet skis	For the swim course
Umbrellas	For the aid stations.
Umbrellas	For the FOP Assistants
Underwater parachute	To move the block underwater.
Vehicles	cargo vans for transferring the sport equipment on the FOP
Vehicles	7 seated vehicle

Vests	Vests for the FOP sector leaders, coordinators, supervisor and manager.
Vests	Red with a white cross for the medical staff
Vests	Blue with white media logo
Video Board	For the spectators
Video cameras	For the technical officials at the critical points
Vinyl cards	Red and yellow for the TOs
Water - plastic bottles	0.5l plastic bottles for the athletes bikes
Water Barriers	For securing the whole FOP.
Water bottles	0.75l plastic bottles for the athletes bikes
Wheel measurer	Measurer for measuring the distances in the transition area, on the bike and the run course.
Wheels	Spare wheels as per requirement
Whistles	50 plastic whistles with rope
Working gloves	Gloves in different sizes for protection of the hands during the FOP set-up and tear down.

8.9 APPENDIX 9: Google Earth Layers Guide

Create a different folder per event

Folder Structure	Sublayer	Symbols	Description
Course	Swim		Blue line, 5pt
	Bike		Yellow line, 5pt
	Run		Red line, 5pt
	Emergency Lanes		Dark Blue line, 5pt
Swim	Buoys		+ buoy number, e.g. "B-1", differentiate color depending on left/right handside
Bike	Sectors		+ name sector, e.g. "Sector A", "Sector B", etc. Use polygones of different colors and apply 50% opacity
	Pedestrian Xing		+ number of the crossing point - "CP-11"
	Penalty Box		+ name of Penalty Box, e.g. "BPB-1"
	Aid Station (Littering start/end)		+ name of Aid Station, e.g. "BAS-1"
	Wheel Stations		+ name of Wheel Station, e.g. "WS-1"
	Coach Area		+ name of Coach Area, e.g. "BCA-1"
	FOP Signage		+ name the sign or insert an image of the site, e.g. "Aid Station 200m"
	Hard low fences		Pink line - 1 pt
	Water Barrier		Green line - 1 pt
	Cone lines		Yellow line - 1 pt
Run	Sectors		+ name sector, e.g. "Sector A", "Sector B", etc. Use polygones of different colors and apply 50% opacity
	Crossing Point		+ number of the crossing point - "CP-11"
	Penalty Box		+ name of Penalty Box, e.g. "RPB-1"
	Aid Station / Littering / Special Needs		+ name of Aid Station, e.g. "RAS-1"
	Coach Area		+ name of Coach Area, e.g. "RCA-1"
	FOP Signage		+ name the sign or insert an image of the site, e.g. "Aid Station 200m"
	Hard low fences		Pink line - 1 pt
	Water Barrier		Green line - 1 pt
	Cone lines		Yellow line - 1 pt
Workforce	Marshall/Volunteers - **MUST HAVE**		+ number of the position - sector/volunteer number, e.g. "V2/18-M"
	Marshall/Volunteers - **good to have**		+ number of the position - sector/volunteer number, e.g. "V2/18"
	Police		+ number of the position - sector/volunteer number, e.g. "P2/18"
	Security		+ number of the position - sector/volunteer number, e.g. "S2/18"
Medical	Ambulance Position		+ number the position, e.g. "AMB-1"
	Paramedic Position		+ number the position, e.g. "PAR-1"
	Medical Station		+ number the position, e.g. "MED-1"
	Hospital		+ number the position, e.g. "HOS-1"
Venue	Differentiate venue facilities using polgons of different colors + appropriate name of the facility		
	High Fences		Pink line - 1 pt
	Hard low fences		Pink line - 1 pt
Timing	Timing mat position		Pink line - 5 pt - crossing FOP

8.10 APPENDIX 10: AG Services Checklist

AGE-GROUP SERVICES AT ITU EVENTS - CHECK LIST

Basic Athlete Services to be provided by the LOC include:

- Visa application
- Airport transportation, including provisions for bike transportation
    - Encourage pre-booking and pre-paid transport;
    - Accredited athletes should be provided with free 'in-city' public transportation
- Athlete information
    - booths (airport, *hotels*, venues)
        - Weather updates;
        - Water temperature updates;
        - Event timelines;
        - Course maps;
        - Host city transportation maps; bikes allowed in tram/bus? (!! free)
        - Bike mechanic and massage timelines and contact details;
        - Training information;
        - Athletes' arrival and departure information;
        - Bike rental companies;
        - Any competition updates
    - Newsletters
    - Dedicated person and contact details transmitted to NFs
- Accommodation services;
    - Host hotel and other accommodation information
    - Homestays
- Medical services;
    - Vaccination requirements
- Training facilities and schedule;
    - Training sessions in a swimming pool;
    - Training sessions at a 400m track;
    - Bike trainings on a suggested route, which is safe for the athletes.
    - Swim course familiarization
- Warm-up opportunities;
- Massage services
    - a free of charge recovery massage (duration up to 10' per athlete) area after the race"
- Bike mechanic support;
    - During:
        - Athletes' Registration (at registration)
        - Familiarization and Competition times (venue)
        - On athletes' request, outside of the above times a bike store should be available to serve the athletes during regular store hours;
        - This service should include free of charge bike maintenance. Any bike parts that have to be replaced need to be covered by the athlete;"

- Uniform printing;
    - The LOC should be able to provide the contact details of a uniform printing company upon any athlete's request. The company should be able to print on a trisuit/ swimsuit
- Registration
    - Registration system booklet for AG Team Managers
    - NF Registration Times
    - Bike check-in times
- Race packages;
    - Wristband
    - race bib
    - stickers (bike seat, helmet, swim/gear bags, bike pump)
    - body tattoos
    - category tattoo
    - wetsuit tattoos
    - MTB plate if applicable
    - swim cap
    - gear bag
    - LOC and partnership gifts
    - Timing chip
    - Opening/closing ceremonies F&B vouchers (or pick up at Expo area)
    - Vouchers for training sites (or pick up at Expo area)
- Briefings;
    - recorded video
    - Team Manager Briefing
    - TO Q&A sessions
- Posting results;
    - recovery area
    - registration area
    - expo area
- Local tourism services;
- Special athlete deals for local services and restaurants;
- Accurate event website;
    - with Q&A section https://www.triathlon.org/agegroup/about_ag/faq
- Facebook event page
- Finisher medal
- Finisher picture
- Spectators
    - Spectator Guide
    - road closure information/ venue access information
- Functions
    - Medal ceremonies
        - Proper podium
        - Backdrop
        - ITU photographer
        - Printed results
        - AG certificates (ITU)
        - AG medals (ITU)
        - World Champions gifts (ITU)

        - Local triathlon champion as Presenter ?

    - Opening Ceremony and Pasta party
        - Plan for additional ticket sales to guests;
        - Plan audio-visual capability for the function;
        - Venue should be easily accessible to athletes
        - should reflect the historical or cultural nature of the host city;"
        - speeches; Cultural event; Parade of nations; Oath
        - A special area for VIPs
        - Bike parking
        - F&B (consider some vegetarians options)

    - Closing ceremony
        - Additional tickets available for purchase by friends and family;
        - Obtain all licenses for liquor, etc.;
        - Show video and highlight clips from event;
        - A special area for VIPs
        - Bike parking
        - F&B (consider some vegetarians options)

- Post-event athletes survey (ONE survey with ITU / LOC questions)

<u>Athlete`s Guide:</u>

- Welcome Letters: ITU, LOC, City, NF etc.
- Important information
    - Contact information : LOC, ITU team + HR
    - Athlete`s Guide updates
- General
    - Schedule
    - Venue + maps
    - Transport
    - Expo area
    - Anti-doping information
    - Spectator information
- Pre-race information
    - Package pick-up
    - NF Registration Times
    - Race kit
    - TOs Q&A Sessions for AG
    - Bike and gear check in
    - Timing
    - Uniform rules
    - Bike Mechanics
    - Massage
    - Training
    - Venue bike parking
- Race day information
    - Transition area
    - Uniform check

    - Gear bag drop/collection
    - Swim bag drop/collection
    - Race day services
    - Contingency plan
    - Swim course
        - Course description
        - Swim Warm up
        - Wave starts
        - Cut off time
        - Wetsuit ruling / speed suits
        - Swim rules
    - Bike course
        - Course description
        - Cut off time
        - Bike rules
    - Run course
        - Course description
        - Aid stations
        - Cut off time
        - Run rules
- Post race information
    - Finish line
    - Recovery area
    - Massage
    - Bike collection (bike ticket check-out)
    - Results
    - Photos
    - Medal Engraving
    - Lost and Found
    - Awards (process if un-attendance)
    - Prize money if applicable
- Official functions
    - Parade of Nations and Opening Ceremony
    - Awards

Closing Ceremony

8.11 APPENDIX 11: Paratriathlon Checklist

Paratriathlon accurate distances	Segment:	Distance/Ref:
	Swim course	
	Swim exit to pre-transition	
	Swim exit to transition	
	Bike course	
	Total bike course' elevation	
	Number or sharp corners on the bike (≥ 90 degrees)	
	Run course	
	Total run course' elevation	
	Number or sharp corners in the run (≥ 90 degrees)	
1. Swim course:	Comments:	
a) Presenting athletes according to the ITU Competition Rules		
b) Sea conditions – surf zones		
c) In water start and no exit if 2nd loop exists.		
d) Wetsuit at all water temperatures.		
e) No overlapped by Age Groupers.		
f) Swim course layout		
g) Minimum depth of water at all points on the course should be 1 meter.		
h) Swim exit assistants.		
i) Swim cap identification.		
j) Coaches' areas		
k) Operations for a staggered start		
2. Transition area:	Comments:	
a) Final bike and uniform check.		
b) Pre-transition to be situated as close as possible to the swim exit.		

c) Pre-transition on a wide flat space, fenced off from the spectators and away from the athletes' flows.	
d) Folding chairs provided in the transition area.	
e) Double space – 2m per Standing categories in the transition, 3m for VI athletes and 4m for Wheelchair users.	
f) Transition zone's surface.	
3. Bike course:	Comments:
a) No maximum gradient of over 12%.	
b) Minimum overlapping from AG athletes.	
c) Width of the road/corners.	
d) Course secured and closed to traffic.	
e) Wheel station (locations, signage)	
f) Coaches' areas	
g) Penalty box (locations, signage)	
4. Run course:	Comments:
a) Wheelchair accessible course. No maximum gradient of over 5%. At the steepest point	
b) All steps/gutters eliminated.	
c) Ramps required to be placed over curbs to overcome obstacles.	
d) Non-trail type run courses.	
e) Run course wide enough to allow a wheelchair athlete and another athlete space to pass each other.	
f) Penalty box (locations, signage)	
g) VI Free leading zones (locations, signage)	
h) Coaches' areas	
i) Aid stations trained to serve VI athletes.	

5. Medal Ceremony: a) Medals for all categories and guides b) Wheel chair accessible podium	Comments:
6. Athletes' services: a) Swim exit athlete's assistants to be available by LOC b) Proper credentials for personal handlers, LOC handlers and swim exit assistants, c) Handlers' briefing and training conducted by the TD. d) Athletes' race packages (swim caps, bib numbers, handlers' T-shirts, stickers) e) Wheel chair accessible athletes' briefing venue f) Schedule: Classifications, Training sessions, briefing – registration, Handlers' meeting, check-in times (bike and w/c check-in process), start time (one or two waves), TOs education course, swim exit assistant's training g) Equipment: slings, wheel chair measurement tool, hand cycle measurement tool, safety bar measurement tool, hand cycle dimensions)	Comments:
7. Entries/Website: a) Entries/ deadline b) Guide & Handler registrations c) Link to medical diagnosis forms	Comments:
8. Classification: a) LOC Paratriathlon coordinator b) Logistics for classification and schedule	Comments:

c) Communication with classifier	
10. Venue: a) Wheel chair access to Athletes Lounge/Venue b) Car parking, close proximity to Athletes Lounge c) Athlete Lounge, proximity to start d) Signage of major areas e) Doping control station f) Finish area g) Recovery area Other details…	Comments:
11. Medical Plan: a) Medical Delegate or Event Medical Co-ordinator assigned and Medical Plan discussed b) Location of medical services on course c) Main medical area location d) Number of medical personnel on site	Comments
12. Communications Plan a) Radios available b) Channels Ops/Tech/Medical c) Emergency communications procedure	Comments:
13. Briefing	Comments

a) Timing with schedule	
b) Briefing Room - wheel chair access c) Delivery - ppt, projector, screen, separate briefing d) Room size e) Pre-race briefing information	
14. Timing & Sports Presentation a) Timing company details b) Location of timing mats c) Meeting arranged with Timing Company. Discuss results format d) Additional timing to wheelchair users	Comments:

Published by the International Triathlon Union (ITU)

Interational Triathlon Union
Sport Department
Maison du Sport Interanationale
Lausanne, Switzerland