



FÉDÉRATION INTERNATIONALE
DE MOTOCYCLISME

FIM STANDARDS FOR TRACK RACING CIRCUITS

STRC

2023

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79.1 GENERAL

The “FIM standards for Track Racing Circuits” (STRC) determine the necessary standards for obtaining an FIM Track Racing licence.

The FIM Championships must be held on Track Racing circuits which are homologated by the FIM, as stipulated in the FIM sporting code under art. 10.8.

The specifications as per these regulations are the basic minimum recommendations for track construction considering safety both for competitors and spectators. The CCP bureau however at its sole discretion may agree the homologation of track racing circuits that vary from these specifications in circumstances where the CCP bureau are fully satisfied that appropriate safety standards have been agreed and implemented. Variations from these regulations in such circumstances will be written into the official track inspection report by the official appointed CCP inspector.

79.2 INSPECTION AND HOMOLOGATION PROCEDURE

79.2.1 Request for a track inspection

Each FMN can apply for a track inspection by the FIM administration. Every application for an FIM track inspection must be submitted together with an accurate plan-drawing of the track to the scale 1:500. This plan-drawing must also indicate the pits area, the changing room, the amenities and accommodation for the public, as well as all relevant dimensions and necessary information.

An accurate construction-drawing of the safety barrier to the scale 1:10 must also be submitted.

ONE EVENT TRACK

Inspection:

STRC shall be used as guideline for the inspection, however at all times safety for the competitor (and spectators) must be the priority consideration.

A pre-inspection of the venue must be held during the season preceding the one that in which it is intended to stage the race meeting (an absolute minimum of two months before the proposed event). Only in exceptional circumstances as agreed in advance, and in writing by the CCP will this stipulation be varied.

A complete track inspection **MUST** also be completed a minimum of two days before the proposed event. The persons present at the inspection **MUST** include the appointed CCP inspector, an FMN delegate, the track owner and/or organiser. It is also recommended that one rider shall be present.

79.2.2 Homologation procedure

During the year, the FIM administration will receive all documentation (track inspection reports, relevant remarks and conclusions contained in previous reports from the jury presidents and referees) for all tracks hosting world championship race meetings.

The FIM Administration will examine the documentation and make the following recommendations to the CCP, concerning the tracks that have been proposed by the FMNs for the race meetings of the following year:

- a) The track is in order, and there are no remarks concerning the organisation.
- b) The FMNR and the organisers must be advised about the improvements to be carried out and must confirm in writing that they have been completed within the deadline set by the CCP.
- c) A re-inspection is requested for the track, or the FMNR is requested to change the venue to another track conforming to the standards.

A track inspector will be appointed by the CCP in order to control and possibly recommend a homologation for:

- a) Any track to be used for an FIM championship for the first time, or where no current licence is in force.

- b) Existing tracks that have already been used for an FIM championship but have undergone substantially changes affecting the circuit or the safety installations.
- c) Existing tracks holding a valid licence, but where a serious accident has occurred due to the circuit, its safety installations or something else connected with the circuit.
- d) Any particular track following a request from the FIM administration.

A track complying with all the recommendations and conditions of a final track inspection report will be homologated by the CCP and will receive an FIM track licence.

For permanent tracks a track licence may be issued for a maximum period of three years. For temporary tracks, a licence will be issued for a specific event or series of events that will be clearly stated on the licence.

- e) The track licence will be issued in accordance with the track details as entered onto the track inspection report by the appointed inspector. Any change or alteration to the details made without the approval of the CCP will invalidate the licence with immediate effect.

79.2.3 Persons necessary for a track inspection

The appointed CCP track inspector will be accompanied by the following persons:

- A qualified member of the FMNR
- A qualified representative of the owner of the track or the organising club
- A rider (this is highly recommended)

79.2.4 Expenses for a track inspection

The costs of the different track inspections are determined under art. 7.6 of the FIM financial operating guidelines.

79.2.5 Duties of the track inspector

At all inspections, the duty of the appointed track inspector is to examine all the installations and safety features and environmental elements at the circuit, and make recommendations, where required, to ensure that these, and the necessary services conform to the STRC and to the FIM environmental code.

The FIM administration may ask for a second inspection if essential work or faults remain.

79.2.6 Track inspection report

The appointed track inspector must complete the track inspection report by computer and send it by e-mail to the FIM administration and FMN concerned within a few days of the track inspection. The original signed document must be sent by mail afterwards. In the track inspection report, the track inspector clearly writes down his remarks and proposals with regard to the measures to be adopted or improvements to be made.

Once the inspection report has been sent, the FMN concerned has a maximum of three weeks to comment on the said report.

79.2.7 Allocation of an FIM championship

Each FMN which has been allocated an FIM championship for the next year, must advise the FIM administration of the venue(s) of the race meeting(s) within the deadline stipulated by the CCP (1st august of the current year).

79.2.8 Liability

No legal action can be taken against the FIM; a track inspector or any FIM official for any reason connected to the homologation of a track, the track installations or the track standards.

79.3 TRACK LAYOUT

79.3.1 General principles

The track must be on level ground and formed by two straights joined by two semi-circles.

79.3.2 Recommended dimensions

The dimensions of the track, as laid down, are recommendations which have to be followed as far as possible. For individual situations, the FIM/CCP can agree on other dimensions at its sole discretion.

79.3.2.1 Length of the track

Measured 1 meter from the inside edge.

Speedway tracks:	From 260 m to 425 m
Ice tracks:	From 260 m to 425 m
Long & Grass tracks:	From 350 m to 1300 m
85cc Speedway:	From 120 m to 200 m
125cc Track Racing:	From 200m to 800m
250cc Speedway:	From 200m to 425m
250cc Long Track:	From 350m to 800m Speedway
Sidecar 1000cc:	From 300 m to 700 m Flat Track circuits
Short Track:	From 120 m to 425 m
Half Mile:	From 426 m to 1100 m
Mile:	From 1101 m to 2000 m

TT: This is a Flat Track circuit that can include a jump and/or an extra succession of bends (both left and right) established on the infield of the track. Suitable only on circuits designated as Short Track or Half Mile.

79.3.2.2 Width of the track

The minimum width of the track shall be:

	Straights	Bends
Speedway	10m	14m
Ice speedway	10m	11m
Long & Grass Track	12m	14m
85cc Speedway	7m	10m
Speedway sidecar 1000cc:		
Tracks up to 400m	10m	14m
Tracks from 400 to 700m	12m	14m
Short Track	10m	14m
Half mile	12m	14m
Mile	12m	14m

Banking

Speedway, Long & Grass tracks:

If there is some banking on the track, it must under no circumstances exceed 5% in the straight, 10% in the bends and must remain constant and grow from the inner edge to the safety fence.

79.3.4 Surfacing

For Speedway, Long & Grass tracks:

Asphalt, macadam, concrete or similar solid base ground is not permitted, unless special authorisation is given by the CCP. The granulation of the material used for the top dressing must not exceed 7 mm. The depth of the dressing should not be less than 3 cm. In no circumstances should the granules be large enough to cause injury to the riders. The top dressing must not include toxic or other materials which could affect the health of the riders or be treated with salt, oil or any substances which could corrode or damage in any other way the components of racing motorcycles.

Speedway tracks: The top surface must be granite, shale, brick granules or similar unbound material rolled in on the base ground.

Ice tracks: The top surface must be ice with a minimum thickness of 20 cm.

Long tracks: The top surface must be sand, shale, granite, brick granules or similar unbound material rolled in on the base ground.

Grass tracks: The top surface must be firm, level turf. Only minor undulations are permitted.

79.3.5 Maintenance

Speedway, Long & Grass tracks:

The track should be properly watered down in ample time before the race meeting to ensure satisfactory racing and to protect the public and the riders from dust. Water must also be available to control dust during the racing.

To preserve the evenness of the top dressing, it should be graded as necessary between heats. Graders should be constructed so that they replace the top dressing on the inside area of the track from the outside where it has been thrown during racing.

Ice tracks:

To remove loose ice, the surface must be scraped or brushed as necessary, but at least after every four races. The loose ice shall be removed from the surface of the track so that the edge marking remains clearly visible to the riders and the Referee. For this purpose, power-driven scrapers or brushes must be provided.

79.3.6 Track requirements and equipment

The track is in order when the track surface ensures satisfactory riding and overtaking. In order to obtain this, all necessary equipment such as graders, water tankers, etc. have to be provided at all Track Racing race meetings.

79.4 PROTECTIVE DEVICES AND BARRIERS

The use of FIM certified APDs is compulsory at all FIM Speedway and Long Track world championship race meetings (500cc) except in the following circumstances:

For speedway and Long Track tracks with a significant “run-off” safety zone, the requirement for the use of an approved APD may be relaxed at the sole discretion of the CCP after full consideration of the remarks and report from the appointed FIM track inspector.

79.4.1 Safety barriers for natural and artificial ice tracks

The track must be surrounded by up to 3 barriers:

Barrier 1

A spectator barrier must be provided, at least 2 m high, prohibiting public access to the neutral zone. The stanchions must not protrude above the top of the barrier and all sharp edges must be covered. This barrier may be dispensed with if the distance from the bends to the public zone is large enough, as shown in the track inspection report.

Barrier 2

A barrier at least 1.2 m high, and (+/-) 1.5 m wide, made of snow or formed by bales must be erected in front of barrier 1. Bales (straw or plastic material) must be suitably covered and retained in place by a rope type system that will allow them to give slightly under impact.

Barrier 3

A barrier at least 80 cm high is erected about 1 m or more in front of barrier 2. It can be composed of bales (straw or plastic material) suitably covered and must be free standing in order to be able to slide under impact.

Option 2:

Barrier 1: As above

Barrier 2: A speedway type barrier, at least 1.2 m high, must be erected around the track. It must absorb kinetic energy in the bends.

Barrier 3: A barrier of at least 80 cm high is erected in front of barrier 2. It can be composed of snow or bales (straw or plastic material or equivalent) suitably covered and must be free standing in order to be able to slide under impact.

If snow is used it should be highlighted in a colour contrasting to the track surface.

Safety barriers for natural and artificial ice tracks

For an ice track that is contained within the confines of an FIM certified safety fence for traditional speedway racing:

Barrier 1

A spectator barrier must be provided, at least 2m high, prohibiting public access to the neutral zone. The stanchions must not protrude above the top of the barrier and all sharp edges must be removed, or fully protected and covered.

This barrier may be dispensed with at the sole discretion of the CCP following the report and remarks of the FIM appointed track inspector if the distance from the bends to the public zone is large enough so as not to present any obvious danger to the public.

Barrier 1A - The certified speedway fence 1.2 m high and a minimum of 2 m distance from barrier 1 in the bends:

Barrier 2 approx. 1 m from Speedway fence

A barrier at least 1.2 m high, and (+/-) 1.5 m wide, made of snow or formed by bales of an agreed material (i.e. straw or plastic) must be erected in front of barrier 1A.

Bales (straw or plastic material) must be suitably covered and retained in place by a rope type system or similar that will allow them to give slightly to absorb energy under impact.

This row of bales must commence immediately on entry and continue throughout the entire bend and into the following straight for a distance of approximately 2 meters.

An appropriate safety fence board (or similar item of agreed material) must be overlaid and suitably secured starting from the speedway safety fence and concluding at the outer edge of the first bale (in the direction of racing) so as to form an uninterrupted smooth line into the bends.

Barrier 3

A barrier at least 80 cm high is erected about 1 m or more in front of barrier 2. It can be composed of bales (straw or plastic material) suitably covered and must be free standing in order to be able to slide under impact.

79.4.2 Safety barriers for Speedway, Long & Grass tracks

A safety fence must be constructed to prevent damage or injury to a rider, an official, a spectator or any other person. A vertical safety fence must surround the track and be of a minimum height of 1.2 m.

A shock absorbing type of fence is recommended.

The safety fence can be constructed with wooden planks, board material, plastics, rubber, wire-mesh or other protective approved material. However, it must be constructed in order to absorb kinetic energy if a rider crash into it.

The safety fence can be constructed of material that is accepted and approved by the FIM for example, board material, plastics, rubber, wire-mesh or other protective approved material. However, it must be constructed in order to absorb kinetic energy in the event of being struck by either a rider or racing machinery.

Since 01.01.2016, FIM have no longer accepted or certified any new venue where the primary safety fence is of a solid construction, being wooden planks, wooden board or any solid material that is not in any way flexible and as such does not allow for the absorbing of kinetic energy when struck by a competitor or racing machinery.

In respect of current licensed venue with a safety fence of the description as above that is no longer permitted, and/or is not of a flexible design, additional modification or protection will be required.

The safety fence must be improved and modified by the provision of flexible alternative as accepted and approved by the FIM and CCP bureau on the exit of bends 2 and 4 for a distance of approx. 20 meters from the end of a certified APD along the straights.

The work must be completed by a minimum of 3 months prior to the staging date of an FIM calendar race meeting.

Where width of track allows, this may be achieved by the extension of the APD. Where this option is acceptable to the CCP track inspector, specific mention will be made on the track inspection report). Where not already confirmed to FIM all tracks hosting FIM events are required to email to the FIM a photograph of the safety fence demonstrating compliance with the above regulation together with a plan and explanation of the flexible system in place. This should be sent at least three months (3 months) before the date of the Event. (Temporary tracks – see specific requirements).

As from 01.01.2024 FIM will no longer accept any venue, whether new or previously licenced, which has a safety fence constructed in whole or in part with Armco barriers or similar. This includes tracks which have Armco barriers behind tyres or any other secondary protection.

79.4.3 Wire mesh fence

If the fence is a wire-mesh construction, unless agreed otherwise by FIM, the following will apply:

The wire must be made in steel and have a minimum diameter of 2,5 mm. The width between the mesh must not exceed 50 mm. The wire mesh must be carried on the outside by suitable stanchions, which are firmly fixed in the ground. The stanchions must not protrude above the top of the mesh. An exception is the suspended wire-mesh fence.

Each stanchion must be equipped with one or more coil springs to which the wire mesh is attached. Alternatively, polystyrene, phenol-formaldehyde foam or similar approved crushable material, which will compress and absorb kinetic energy on impact, may be employed instead of springs. Such material must extend the full exposed length of each stanchion.

The mesh must be supported by three horizontal strain wires of a minimum diameter of 6 mm.

The upper wire must be located at the top of the mesh, and second wire approximately 50 cm from the top. The third wire must be located at the bottom. The wires must be securely attached to the stanchions and must go through the net at the top and the bottom of the net at the full length of the wires and not mounted with plastic cable ties. Strain wires must be kept taut at all times.

For wire-mesh fences, the capping must be made of strong canvas, rubber, plastic or similar flexible material and extend at least 5 cm down both sides of the mesh. The capping must be securely fastened.

Inside the wire mesh, it is recommended to have a cover in suitable material overlapping the top of

the fence and reaching down under the kick-board.

79.4.4 Safety barriers on temporary tracks

Alternatives to the wood or wire mesh fence, where authorised, are described below:

Option I

Straw bales of at least 80 cm in height are placed side by side without spacing around the track. The bales are secured in position by roping or like manner to ensure that they cannot be knocked onto the track. Outside the bales a catching net of a wire mesh construction, not less than 1 m in height, is erected at a distance of not less than 3 m. If space permits, the widths of the neutral zone should be substantially wider than the minimum specified, or an additional neutral zone should be provided.

Option II

The outer edge of the track is marked by a continuous white line or by very small flags and, outside this outer edge; there will be a run-off zone. The width of this run-off zone must be at least 1% of the track length but not less than 4 m.

- a) If these conditions are met, the safety fence may be 1,10 m high and without a kick board. Outside, and adjacent to the safety fence, there must be a neutral zone with a suitable barrier to deny access to the zone by the public. The width of the neutral zone must be a minimum of 2 m.
- b) when the run-off zone is between 4 m and 6 m in width and 1 m in width when the run-off zone is over 6 m in width.
- c) The run-off zone is surrounded by rope-and-stake wrecking fences, two on the straights and three on the bends, with neutral zones between them; the height of the wrecking rope from the ground should be approximately 75 cm; the width of the neutral zone on the straights should be not less than 2 m, and of the neutral zones on the bends not less than 3 m.

For sidecar racing, there should be four wrecking fences on the bends.

At 3 m from the outside of the outer wrecking fence, a wire mesh barrier should be provided in order to deny access of the public to the neutral zones.

Obstacles, except those that are necessary for the organisation of the race meeting, are not permitted in neutral zones.

The width of this run-off zone must be at least 1% of the track length but not less than 4 m except where rope and stake wrecking fences are used when the run-off zone must be at least 1% of the track length but not less than 6m.

79.4.5 Additional protective devices

Additional protective devices (APD) requires an official certification pursuant to the standards, procedures and specifications for the CCP/FIM test for APD.

The certification is valid only for the tested model/product. New models/ products must undergo and obtain a new certification in accordance with the relevant tests.

If an APD is used permanently or temporarily, it must be erected against a secondary fence on the bends and first part of the two straights only. The secondary fence must be approved and certified by the FIM.

The height of the APD shall not be less than 1.2 m. The APD must be solidly connected to the top and, as solidly as possible, to the bottom of the secondary fence or to the ground in order to avoid a possible rising during impact.

The lower part of each APD must be equipped with a kick board approximately 30 cm high according to art. 79.4.6.

If constructed by the means of modules, these shall be solidly attached and a flap, overlapping and connected to the next module in the direction of racing, has to be provided at the end of each module. The same applies for the kick board.

All the materials composing the APD must be fire resistant.

Contingency ADP must be available in order to be able to quickly replace a punctured or damaged unit. A minimum of 4 spare APD panels in good condition (from the same brand) shall be available at the start of an event. They shall be immediately available and ready for use should any of the APD panels, the numbers as specified on the track inspection report become damaged or ineffective.

The number of APD panels as specified in the Track Inspection Report must be maintained in effective condition throughout the official practice sessions and race meeting. Should due to any circumstances (crashes/incidents etc.) the available number of panels be exhausted so that the stated number of panels cannot be maintained. Track activity must cease immediately. When fitting APDs to the safety fence, a gap of approximately 10-12 cm is permissible between the APD and the fence is permitted to allow for the natural curvature of the outer safety fence.

If during a track inspection by the appointed FIM track inspector or by an appointed jury president, it is found that an APD is not in compliance with the STRC then the FIM track licence for that track may be suspended until preparatory work has been carried out and re-inspected.

The organiser and the clerk of the course are responsible for the fitting of the APD to the safety fence, as required by the manufacturers.

The co-ordinates of the manufacturers and distributors of certified/ homologated additional protective devices are listed on the FIM official website www.FIM-MOTO.com.

The following Track Racing additional protective devices are certified/ homologated (see manufacturers' and/or distributors' co-ordinates on the FIM official website www.FIM-MOTO.com): Type A"plus+" (Long Track, Grass Track and Speedway) Type A (Long Track, Grass Track and Speedway), Type B (Speedway).

After five years of use from the original date of installation FIM Approved APDs and/or all units thereof shall be re-inspected by an FIM appointed inspector. Depending on the condition of the APD and all units thereof at the time of the inspection all (or parts) of the APD may then be certified as "fit for purpose" to allow continued use for either one or two further years as an absolute maximum.

After a maximum seven years of use from the original date of installation, the APD (being all original units remaining from the original installation date) must be replaced.

It is the responsibility of the organiser/promoter to maintain adequate records of any replacement units purchased and be able to demonstrate beyond all reasonable doubt to the appointed FIM track inspector the true age of the APD and or any replacement units.

An Inspection of an APD may be required by FIM at ANY time should there be adequate reason to consider that it is no longer "fit for purpose".

Where work is required to the APD to an acceptable standard the Track License of the circuit or circuits where the APD is in use will be considered suspended until the specified works have been completed.

From January 1st 2023, and after existing APDs have reached their expiry date as certified by the FIM,

- tracks with average speeds over 80km/hour may use only A+ barriers
- tracks with average speeds between 70-80 km/hour may use either A+ or A barriers
- tracks with average speeds below 70km/hour may use either A+, A or B barriers.
- Average speeds are calculated using the length of the track and the official track record. Evidence of these figures must be supplied to the FIM before any track inspection is carried out.

79.4.5.1 Certification procedure of new additional protective devices

The test procedure as well as the appointed laboratories can be obtained from the FIM administration.

79.4.6 Kick board

The lower part of the safety fence must be equipped with a kick board, approximately 30 cm height. It must be constructed in such a manner that it will prevent damage to riders and equipment. At the same time, it shall connect up the sections of the safety fence. For some type of fence the kick board may not be necessary. Special permission can only be given by the FIM/CCP Administration. The sections of the kick board must be overlaid in the direction of racing and painted in order to contrast with the colour of the track surface. For temporary tracks, kick boards are not required on the safety barriers.

The use of a hard, rubber type compound is recommended for the construction of a kick board. Note: The use of metal kickboard is not allowed.

The area immediately behind the kickboard should be maintained in a manner that leaves the neutral zone completely clear of any debris, build-up of shale, or any other materials that would in any way adversely affect the flexibility of the kickboard.

79.4.7 Access gates

The number of access gates in the safety fence must be the minimum necessary for the efficient organisation of the race meeting. Preferably, no gate should be located at any part of the track where riders may be expected to ride into the fence. Gate stanchions must not be higher than the height of the fence and be covered in an approved manner with crushable material. Hinges and locks must be fitted on the outside of the stanchions and gate frames (in relation to the track).

In any type of fence, the slot for the starting gate should not be wider than necessary for providing operating clearance. The slot must terminate at least 30 cm above the track surface, and the kick board must be continuous below the slot.

79.4.8 Neutral zone

Ice racing tracks:

The width of the neutral zone should not be less than 2 m in the straights and 3 m in the bends, with a suitable barrier (2 m high protective fence) to deny access to the zone by the public.

Flat Track tracks:

The neutral zone will follow the regulations of the track racing discipline for which the circuit is traditionally licensed i.e. discipline Speedway, Long Track and Ice Racing.

Speedway tracks:

The width of the neutral zone should not be less than 2 m, with a suitable barrier to deny access to the zone by the public.

Long & Grass tracks:

The width of the neutral zone should not be less than 2 m in the straights and 3 m in the bends, with a suitable barrier to deny access to the zone by the public.

If a Long Track event is held at an established speedway track, the width of the neutral zone in the bends may be reduced to 2 m.

Temporary tracks: (except for ice racing tracks)

There must be a neutral zone on the outside of the safety fence or barrier. This neutral zone must be at least 2 m in width on the straights and 3 m in width in the bends, with a suitable barrier to deny access to the zone by the public.

Obstacles are not permitted unless necessary to serve the organisation of the race meeting. Any lighting posts or other obstacles that could cause damage or injury situated in the neutral zone, within 2 or 3 m minimum distance from the fence must be adequately covered with straw bales or cushioning material at least 60 cm in width and 2 m in height towards the direction of racing.

79.5 MARKING

The inside and outer edges of the track must be clearly marked.

79.5.1 Marking of the outer edge

If there is no safety fence on the outer-edge of the track, the outer-edge must be marked by a continued white line or by small flags. The racing track must also be surrounded by a run off zone. The public must be safely protected from the racing by a suitable barrier of rope, net or a similar protective material.

79.5.2 Marking of the inside edge

Speedway, Long & Grass tracks and Flat Track:

The inside edge must be kept visible throughout the race meeting and marked by a continuous line of a colour that contrasts with the track surface. The line may be indicated by means of white powder or whitewash, not less than 15 cm wide, or by a wood or concrete kerb painted in contrast to the surface and not less than 5 cm wide. A kerb must not protrude above the surface by more than 5 cm and must enable a motorcycle to ride over it safely in an emergency situation. The inside edge may also be indicated by very small flags and, preferably, placed 1 m inside a white inner edge line.

Ice tracks: The inside edge must be kept visible throughout the race meeting and marked by a continuous line in a bright, contrasting colour (such as red or blue) not less than 15 cm wide. The line, marking the inside of the track in the bends, must not be painted nearer than 15 cm to the edge of the track.

79.6 INFIELD AND ADVERTISING

79.6.1 Infield

The infield must be in the same plane as the track and approximately level so that a rider may safely ride on it, should he be forced off the track. No obstacles are permitted within 4m of the inner edge of the track with the exception of the starting gate and associated start equipment. All permanent obstacles in the infield (goal posts, flood lights, etc.) must be approved by the FIM appointed track inspector and listed on the track inspection report together with details of any protection required. Any temporary obstacles required in connection with the race meeting (loudspeakers, screens, podium, etc.) should be sited as close to the centre of the infield as possible and in any case at least 6m from the inner edge of the track. Temporary obstacles required in connection with the race meeting and sited within 12m of the inner edge of the track must be protected with straw bales, polystyrene, or similar crushable material to a minimum height of 2m from ground level.

Temporary obstacles required in connection with the race meeting and sited more than 12m from the inner edge of the track should be protected as directed by the Jury President. Any obstacle on the infield which restricts or interferes with the view of the referee is not permitted and must be removed. Motor vehicles are not permitted to be sited on the infield during racing with the exception of Long Tracks exceeding 650m in length. In these cases, the clerk of the course and the doctor may have a vehicle at their disposal, on the infield, for quick transport to any part of the track in case of an emergency. In addition, an ambulance may be stationed on the infield if the doctor decides this precaution is desirable. Vehicles required for use during the race meeting (water tankers, tractors, graders, etc.) must be accommodated outside the circuit when not in use. No persons should be within 4m of the inner edge of the track whilst racing is in progress and non-essential personnel (start girls, photographers etc.) should be at least 10m from the inner edge of the track.

No more than two photographers shall be allowed on the infield whilst racing is in progress except for Long Track when up to 4 photographers are allowed. **Three photographers shall be allowed**

on Warner Bros Discovery Sports promoted events.

No photographers are allowed in the Neutral Zone whilst racing is in progress.

79.6.2 Advertising

All advertising boards and structures in the infield must be collapsible and should not exceed 1m in height.

They must be either inflatable or constructed of light materials such as plywood, polystyrene, thin metal or plastic sheets mounted on light weight frames so that they can collapse easily if struck. They must be placed more than 6 m from the inner edge of the track and be inclined towards the direction of racing.

During the Discovery Sport Events promoted race meetings (SGP, SGP2, SGP3, SGP4, SoN, SoN2 and SWC), the central stage and other structures will be permitted infield during the practice and the race with the possibility for the international jury to ask for extra protections if required.

Banners, posters or other displays on the inside of a board fence are only permitted if they are painted on the fence or completely secured by adhesive.

Any banner, poster or other display on the inside of a board fence is only permitted if it is painted on the fence or it must be completely secured by adhesive.

79.7 TRACK INSTALLATIONS**79.7.1 Starting area**

According to the number of starters, the starting area must be divided into equal parts by longitudinal lines of 5 cm width. These lines, on the track surface, are extending back for 1 m from the starting line.

All markings in the starting area must be clearly visible to the Referee at all times throughout the race meeting.

For Long Track: the minimum distance between the lines is 1.5 m for solos and 2.5 m for sidecars.

For Grass Track: the minimum distance between the lines is 2 m for solos and 3 m for sidecars.

All lines in the starting area must be marked with powder that contrasts with the colour of the track surface, and must be renewed after each race.

On Ice tracks the lines must be marked in a bright contrasting colour (such as red or blue) and maintained visible throughout the race meeting.

For Flat Track:

Depending on the number of riders taking part in a heat (maximum 6 per row) the start line will be marked as follows:

Row one – Will be the start/finish line.

Row two – will be marked with a single line positioned 8 meters behind the start/finish line.

Penalty lane – will be marked with a single line positioned 15 meters behind the start/finish line

All line markings are to be made using a powder or similar that contrasts with the colour of the track surface.

79.7.2 Starting line

A continuous, straight starting line (which serves, also, as the finishing line), at least 5 cm wide, must be marked across the full width of the track at a right angle to the inner edge.

Speedway and Ice tracks:

The starting line should be positioned in the middle of the straight, and if this is not possible then not less than 35 m from the entrance to the first bend.

Long & Grass tracks:

The starting line should be positioned in the middle of the straight, or if this is not possible then not less than 2/5 of the length of the straight before the first bend.

Flat Track:

The Starting line should usually be positioned approximately in the middle of a straight but may be positioned in different places depending of the tracks/competition.

79.7.3 Starting gate

Vertical stanchions, approximately 3 m in height, must be securely mounted one on the infield and the other outside the safety fence. On the infield it should be placed approximately 1 m from the inner edge line and should be covered in an approved manner with straw bales or cushioning material at least 60 cm in width and 2 m in height towards the direction of racing.

The outer stanchion should be positioned a minimum of 60 cm away from the outer edge of the safety fence.

In order to ensure compliance, all tracks hosting FIM events are required, unless they have already done so and received acknowledgment from the FIM, to email to the CCP Coordinator a photograph of the outer starting gate stanchion demonstrating compliance with the above regulation. This should be sent at least one month before the date of the event (Except for temporary tracks).

Each stanchion must be equipped with 2 sliders, to carry the tapes, with a slider stop at a height of approximately 2.9 m and with a pulley at the top for the elastic cord which raises the slider when it is released.

A solenoid-and-pawl, an electro magnet or similar mechanism must retain the slider when it is in the lower position to give the **recommended height of 30 cm for the bottom tape**. Two or three tapes must be attached to the sliders of the starting gate with rubber bands at each end which, when not stretched, are no longer than 15 cm and not wider than 2.5 cm.

Metal clips, hooks or other forms of metal connections must not be attached to the tapes or bands. The tapes must be made of an easy breakable material.

The tapes must be of a contrasting colour with the colour of the track surface. For Ice tracks they should be preferably red or blue.

The gate releasing mechanism must only be controlled from the switchboard.

Should a starting gate fail to operate properly, the green light or a flag may be used for signalling starts.

"In any circumstances, the Referee should have a completely unobscured view of all the Riders at the start line, it is compulsory that a transparent panel or wire mesh is installed to improve visibility where necessary."

79.7.4 Signalling

Signals to riders must be given by means of either lights or flags. The size of signaling flags must be of 60 x 60 cm minimum.

Green light or national flag	Start
Flashing red light + siren or red flag + siren	All riders stop
Yellow flag with diagonal black stripes -5cm wide)	Last lap
Black and white chequered flag	Finish
Horn, siren or bell audible in the pits and near the starting line together with flashing amber	Final warning of limited time for riders to reach the start

light

line

Black flag and light indicating rider's colour or black flag with a disc of a diameter of at least 45cm indicating the rider's colour

Rider disqualified

A green starting light shall be provided at least 10 m in front of the starting line, clearly visible to the riders and in direction of the racing. For Long & Grass tracks, this green starting light and a red stop light must be positioned max. 30 m in front of the starting line and about 2 meters above the track level.

A supplementary green light, operated in conjunction with the green starting light must be located 10 m in the rear of the starting line, and be easily visible to the starting marshal when he is facing the direction of racing.

The disqualification lights shall consist of a group of four to six lights corresponding to the riders' helmet colours (red, blue, white, yellow, green, black & white). They must preferably be assembled in a vertical tower and visible to any part of the stadium. All lamps must be of high intensity type. Two flashing amber lights, each one operating in conjunction with the **1- or 2-minute** horn, siren or bell, must be placed as follows:

- a) one in the pits, clearly visible to all riders
- b) one near the starting gate

In addition to these lights there must be a minimum of three red, flashing lights, positioned not more than 4 meters from the track and easily visible by the riders, three marshals with red flags placed at intervals on each bend of the track and a siren that operates with the lights.

All lights must be of high intensity type and be easily visible to the riders.

The lights must be located at least 60 cm outside the safety fence or barrier, but not more than 4 m away.

If mounted on the stanchions inside the neutral zone, the stanchions must incorporate a pivot at a height of not more than 30 cm from track level, so that, if it is struck by a rider or machine, the upper part of the stanchion will easily collapse in the direction of racing.

79.7.5 Referee's box

An observation box, placed adjacent to the starting area, must be provided for the referee. This box must be sufficiently high in order to give the Referee an unhindered, overall view of the track and the starting area.

This accommodation must have an adequate roof in order to protect the Referee in case of wet weather. The referee's box must be located on the outside of the track so that the referee can align himself with the starting line.

The box must be located outside the neutral zone or zones and be equipped with a switchboard for operating the starting gate, the signal lamps and the warning horn, siren or bell. The referee's box must have a proper telephone installation for communication with the starting marshal, the pits' marshal, the announcer and provide ample facilities for writing.

The switchboard should be equipped with easily understandable indicators for the functioning of the switches. The wiring must ensure that:

- a) The 2 flashing amber lights will automatically switch off when the green starting lamp (and its subsidiary lamp) has been switched on.
- b) The switch to raise the starting gate will not operate until the green starting lamp (and its subsidiary lamp) has been switched on.
- c) The green starting lamp (and its subsidiary lamp) will automatically switch off ten seconds after the

starting gate has been released.

d) Possibility to switch off the green light without releasing the tapes.

At tracks where racing is held under artificial lighting, an adequate lamp which can be switched on and off by the referee, must be provided in the referee's box.

The switches for operating the disqualification lights in Speedway and Ice races must be placed in the following order: Red, blue, white and yellow and, additionally for Long & Grass track (where applicable) green and black & white.

79.7.6 Pits

Each rider must be provided with a minimum of 8 m² of space on hard ground.

At all tracks, covered accommodation must be provided to give protection in case of bad weather. Drinking water and washing facilities must be provided throughout the race meeting.

There must be a minimum of one toilet reserved for riders and placed nearby the pits. Facilities for collection of rubbish, oil and tyres must be available in the pits.

79.7.7 Changing room

Sufficient enclosed accommodation for at least 20 persons must be provided within the pits area or nearby. These facilities must include toilets, water supplies, showers and seating.

79.7.8 Washing of motorcycles

Washing of motorcycles at the venue must be carried out at places with washing facilities only.

Cleaning (wiping with detergents, for example) or rinsing with pure water (without the addition of any chemical products), is permitted and cleaning must be carried out in accordance with the environmental code and on the following conditions:

- a) That a non-porous wash area has been provided, complete with a drain and a separate oil collector. Or,
- b) That a pond, lined with a waterproof membrane, is provided with sufficient capacity to contain all the waste arising from motorcycle washing, and the contents are removed by a vacuum tanker for disposal in accordance with local regulations.

79.7.9 FIM marketing requirements

For the FIM Track Racing championships and prize events, the organiser must follow the FIM guidelines and recommendations regarding the advertising, backdrops, press and TV management.

79.8 EMERGENCY SERVICE

79.8.1 Medical service

During the official practice and the meeting, at least one suitably qualified doctor, ambulances (one on practice day and two on race day) and sufficient medical staff with first aid kits must be in attendance. Medical staff with first aid kits and stretcher must be stationed on the infield, in the middle of each bend, and well away from the edge of the track.

The exact whereabouts of the doctor throughout the practice and the meeting must be known by the clerk of the course.

Motor vehicles are not permitted to be sited on the infield during racing with the exception of Long Tracks exceeding 650m in length. In these cases, the clerk of the course and the doctor may have a vehicle at their disposal, on the infield, for quick transport to any part of the track in case of an emergency. In addition, an ambulance may be stationed on the infield if the doctor decides this precaution is desirable.

Please cross refer this information to page 58 diagram entitled race officials.

- a) 2 type B vehicles (highly specialised vehicle for the provision of advanced treatment, transport

and can serve as a mobile resuscitation center).

- b) 1 medical room for minor treatment, observation, examination and assessment of a rider
- c) 1 Doctor acting as CMO with, if applicable, a CMO licence according to the requirements for the discipline as set out under art. 09.4.2 of the medical code.

For practices only:

- a) 1 type B vehicle (highly specialised vehicle for the provision of advanced treatment, transport and can serve as a mobile resuscitation centre).
- b) 1 medical room for minor treatment, observation, examination and assessment of riders.
- c) 1 Doctor acting as CMO with, if applicable, a CMO License according to the requirements for the discipline as set out under art 09.4.2 of the medical code.

79.8.2 First-aid room

At least one bed, hot water supplies, and adequate medical stores must be provided in a room or tent from which non- medical staff can be excluded.

The first-aid room will be under the responsibility of the medical officer in charge.

79.8.3 Fire-fighting equipment & emergency tools

The fire extinguishers' minimum standard must be: 5 litres / type AB or ABC/Dry powder extinguishers. At least four fire extinguishers, which have been checked for proper working order before the practice and before the race meeting, must be located on the infield or near the starting area. Two similar fire extinguishers must be entrusted to the pits marshal. Two similar fire extinguishers must be placed in the refuelling area.

Tools and spare parts for fast repair of any part of a safety fence must be available.

The firefighting equipment must be in place in the pits and refuelling area at all times throughout the race meeting, from the commencement of the first machine examination.

79.8.4 Fuel

Provision of fuel

Fuel may only be provided from a point a minimum of 7 meters from any other vehicle. The area must be secured, and the supplier must display "no smoking" and "no naked light" signs. In addition, the supplier must comply with appropriate local regulations.

79.9 PRESS FACILITIES

The following minimum facilities for the Press must be provided in 1 workroom with tables, chairs and typewriters:

- 1 telephone with direct lines
- 1 photocopy machine
- Internet connection

Telephone communications may be charged to the journalists. The only persons authorised in this room are the media (TV, journalists and photographers) and FIM/FMN officials.

It is recommended to provide the press with free drinks and a small buffet.

79.10 FIM SPEEDWAY GRAND PRIX WORLD CHAMPIONSHIP, FIM SPEEDWAY WORLD CUP & FIM SPEEDWAY OF NATIONS

The rules of the present appendix apply for all tracks used for the FIM Speedway Grand Prix world championship, **FIM Speedway World cup** and the FIM Speedway of Nations, except where different or added to by FIM Speedway Grand Prix world championship, FIM Speedway world Cup and FIM Speedway of Nations rules.

79.11 GUIDELINES FOR SPEEDWAY SIDECAR 1000CC TRACKS Introduction

As the governing body for motorcycle sport, the FIM is committed to promoting safe motorcycle sport throughout the world.

These track guidelines have been published by FIM with the aim of assisting an FMN, clubs, organizers and promoters, and FIM approved Track Inspectors, to conduct an inspection assessment and where appropriate, homologation of motorcycle tracks. The purpose is to facilitate a level of uniformity and in doing so contributing to safety and fairness for all competitors/participants and officials.

Notwithstanding these guidelines however, the safe operation and management of tracks and events, remains the responsibility of the staging FMN, clubs, organizers, track operators and promoters.

For the purposes of obtaining a track licence to conduct an international event, additional measures may be required to comply with FIM standards. The FIM publishes these guidelines assist in the development of tracks for international competition.

Support facilities at tracks:

It is the responsibility of the staging FMN, club, organiser, track operator and promoter to ensure compliance with all local, state and territory or federal laws, regulations and codes, regarding the safe design, construction, management and operation of the track and all support facilities. Also, that the track and associated facilities are fully compliant with any planning, building, environmental, occupational health and safety, public safety or other local, state or territory laws, regulations or codes.

FIM cannot and does not conduct any business or undertaking to ensure that participants in events, officials or other persons attending such events held at FIM licensed facilities are not put at risk.

1. Track Layout

- a) Tracks should be as near to level as possible and formed by two straights joined by two semi-circular corners.
- b) Track layout must be initially designed with all grades of competing riders in mind.
- c) Competitor safety and spectator viewing must both be considered when designing and constructing the track.
- d) Consideration should be given to drainage in the event of heavy rainfall.

2. Length, Width and Banking

According to 79.3.3

3. Surface

- a) The top surface must be granite, shale, brick granules, or similar unbound material rolled in on the base ground.
- b) The grain size of the material used for top dressing must not exceed 7 mm in diameter.
- c) The depth of the dressing should be not less than 30 mm.

4. Maintenance

To preserve the evenness of the top dressing, it should be graded as necessary between races.

Graders should be constructed so that they replace the top dressing on the inside area of the track from the outside where it has been thrown during racing.

Note: Special consideration should be given to drainage in the construction of the track to guard against the effect of adverse weather conditions.

5. Lighting

Lighting must be of a standard that provides clear and even visibility across the entire racing surface. It shall be free of shaded areas and provide a minimum of 200lux measured at the track surface.

6. Referee's box

An observation box, placed adjacent to the starting area, must be provided for the referee and must be in accordance with art. 79.7.6.

7. Pit area

There shall be adequate pit facilities approved by the FIM consisting of the following:

- a) Each rider must be provided with a minimum of 8 m² of space on hard ground.

8. Washing zone for motorcycles

Please refer to the art. 79.7.9

9. Public and rider safety:

- a) On the race track and other relevant areas, there must be a minimum of two lines of protection between competitors/machines, and members of the public:
 - i. the first line of protection, also known as the safety fence shall be in accordance with paragraph 10 as below.
 - ii. the second line of protection, also known as the spectator fence, shall be in accordance with paragraph 11 as below.
 - iii. a neutral zone, as detailed in paragraph 13 below shall exist between the safety fence and the spectator fence.

10. Safety fence (first line of protection)

A safety fence must be constructed to prevent damage or injury to a rider, an official, a spectator or any other person:

- a) A vertical safety fence must surround the track and be of a minimum height of 1.2 meter or as otherwise required by local or state legislation.
- b) The fence may be constructed of wooden planks, other approved board material, plastics, rubber belting, wire-mesh or other protective approved materials approved by the FIM. The material shall be constructed in order to absorb kinetic energy if a rider crash into it.
- c) Round-headed coach bolts must be used for fastening and replacing "tek screws" (or
- d) similar) to increase rider safety.
- e) Concrete barriers or steel sheeting can be approved for existing venues only.

10.1 Wooden fence

A fence constructed of wooden planks must:

- a) be at least 25 mm in thickness,
- b) be adequately proofed against rotting and other deterioration,
- c) where of plank construction must be erected horizontally,
- d) must be supported on the outside by suitable stanchions, which are firmly fixed into the ground. Support stanchions must not protrude above the top of the fence.
- e) have the inside surface of the entire fence painted to clearly contrast with the colour of the track surface.
- f) throughout the entire length, be equipped with a securely fixed, smooth, rounded cap. This cap must not overhang on the inside of the fence.

10.2 Board material

A fence constructed of other approved board material must:

- a) be at least 19 mm in thickness,
- b) be correctly proofed against rotting and other deterioration,
- c) be supported on the outside by suitable stanchions, which are firmly fixed into the ground. Stanchions must not protrude above the top of the fence.
- d) have the inside surface of the entire fence painted to clearly contrast with the colour of the track surface.
- e) throughout the entire length, be equipped with a securely fixed, smooth, rounded cap. This cap must not overhang on the inside of the fence.

10.3 Kick board

The base of the safety fence, irrespective of the type of construction (other than concrete, timber, or rubber belting), must be equipped with a kick board on the track side of the fence, 300 mm in height and constructed of wood, or other approved material.

- a) in the case of a wood type fence, the kickboard should be firmly fixed to that fence.
- b) in the case of a wire mesh fence, fixed to supports firmly located in the ground. These supports must be separated from the fence stanchions.
- c) sections of the kickboard must be painted to contrast with the colour of the track surface.

11. Spectator Fence (second line of protection)

Outside of the safety fence, there must be a suitable barrier to deny access to members of the public and any other unauthorized persons. The fence should be constructed of wire mesh and be a minimum of 1.8 meters high and a minimum of 3 meters from the track fence (neutral zone) unless otherwise required by local or state legislation.

12. Start line equipment

The slot for the starting tapes or mechanism in any type of fence should be no wider than necessary for the efficient operation of that mechanism.

12a. Access gates

- a) Gates providing access to the track should present no additional hazards to competitors. Gate stanchions must be no higher than the safety fence and be covered in an approved manner with crushable material. Hinges and locks must be fitted towards the outside (in relation to the track) of the stanchions and gate frames. Preferably, no gate should be located at any part of the track where competitors may be expected to ride near the fence.
- b) Access gates must be capable of a minimum 2-meter opening width.

13. Neutral zone

- a) A neutral zone, three (3) meters in width, must exist between the first and second lines of protection measured perpendicular to the track unless otherwise required by Local or State Legislation.
- b) Obstacles, other than those necessary for the conduct of the race meeting, are not permitted in the neutral zone.
- c) Lighting posts are not permitted within three (3) meters of the safety fence unless suitably protected.

14. Infield

- a) The infield area must be approximately level so that competitors may safely ride on it if forced from the track.
- b) Except as provided for in clause c) below, obstacles, except portable advertising signs and structures which serve the organisation of the race meeting, are not permitted on the infield.
- c) In exceptional circumstances, obstacles, which cannot be removed, may be permitted, provided that they are no closer than four (4) meters to the inside edge of the track. In this case, the obstacle/s must be encased with straw bales, polystyrene, phenol formaldehyde or similar crushable material to a minimum height of two (2) meters above ground level.
- d) Vehicles, other than safety vehicles, are not permitted on the infield during an event.

15. Infield advertising signs

Any advertising signs used on the infield must be either inflatable or constructed of light materials such as plywood, polystyrene, thin metal or plastic sheets mounted on lightweight frames that will collapse easily if struck. Signs shall not exceed one (1) meter in height, they shall be no nearer than four (4) meters to the inside edge of the track and shall be inclined towards the direction of racing.

16. Starting places

The minimum starting space allowed for each machine is 1.5 meters for solo machines and 2.5 meters for sidecar machines.

17. Start Line

- a) A continuous, straight starting line (which serves also as the finishing line) at least 5 cm wide, must be marked across the full width of the track at a right angle to the inner edge.
- b) The starting line should be positioned in the middle of the straight, and if this is not possible then not less than 35 m from the entrance to the first bend.

18. Starting Gate (starting tape)

- a) Vertical stanchions, approximately 3 m in height, must be securely mounted one on the infield and the other outside the safety fence. On the infield it should be placed approximately 1 m from the inner edge line and should be covered in an approved manner with straw bales or cushioning material at least 60 cm in width and 2 m in height towards the direction of racing.
- b) Each stanchion must be equipped with 2 sliders, to carry the tapes, with a slider stop at a height of approximately 2.9 m and with a pulley at the top for the elastic cord which raises the slider when it is released.
- c) A solenoid-and-pawl, an electro magnet or similar mechanism must retain the slider when it is in the lower position to give the **recommended height of 30cm (compulsory from 2024)** and required height of 53 cm for the bottom tape. Two or three tapes must be attached to the sliders of the starting gate with rubber bands at each end which, when not stretched, are no longer than 15 cm and not wider than 2.5 cm.
- d) Metal clips, hooks or other forms of metal connections must not be attached to the tapes or bands.
- e) The tapes must be made of an easy breakable material.
- f) The tapes must be of a contrasting colour with the colour of the track surface.
- g) The gate releasing mechanism must only be controlled from the switchboard.
- h) Should a starting gate fail to operate properly, the green light or a flag may be used for signalling starts.

19. Track markers

The inside and outer edges of the track must be clearly marked.

20. Marking of the outer edge

- a) If there is no safety fence on the outer-edge of the track, the outer- edge must be marked by a continuous white line or by small cones. The racing track must also be surrounded by a run off zone.
- b) The public must be safely protected from the racing by a suitable barrier of protective material as above.

21. Marking of the inside edge

- a) The inside edge must be kept visible throughout the race meeting and marked by a continuous line of a colour that contrasts with the track surface. The line may be indicated by means of white powder or whitewash, not less than 15 cm wide, or by a wood or concrete kerb painted in contrast to the surface and not less than 5 cm wide.
- b) A kerb must not protrude above the surface by more than 5 cm and must enable a motorcycle to ride over it safely in an emergency situation. The inside edge may also be indicated by very small cones (no greater than 300 mm in height) and, preferably, placed 1 m inside a white inner edge line.

22. Applications

Applications for licensing of Sidecar 1000cc Tracks must include a drawing of the track and surrounds, which must include the following:

- a) the racetrack proper,
- b) the location, extent, height and construction type of the first line of protection (safety fence),
- c) the location, extent, height and construction type of the second line of protection (spectator fence),
- d) the location and extent of pit entry/exit roads,
- e) the location, extent and size of all marshal points,
- f) details of the track watering system and any other features within the racing arena,
- g) the location and number of competitor and spectator toilet/shower facilities,
- h) the location of first aid rooms/units,
- i) the location of Ambulance parking site and entrance to racing arena,
- j) the GPS location of the track.

23. Flag marshalling points:

- a) There must be a sufficient number of officials signalling posts (flag points) all around the course.
- b) The posts must be distinctly indicated, and the location chosen so that signs given are clearly visible to competitors.
- c) Flag marshal points must be located and protected to minimise the risk of injury to officials.
- d) The area must be level and hard packed with a minimum flat area of 4 m²
- e) Position must be clearly marked.
- f) Marshal points must not be placed at the outside of a corner or an outside exit of a corner.

79.12 GUIDELINES FOR FLAT TRACK TT CIRCUITS

A TT Flat track is a Flat Track circuit that can include a jump and/or an extra succession of bends, both left and right, established on the infield of the track.

Introduction

As the governing body for motorcycle sport, the FIM is committed to promoting safe motorcycle sport throughout the world. These guidelines have been published by FIM with the aim of assisting an FMN,

clubs, organizers and promoters, and FIM approved Track Inspectors, to conduct an inspection assessment and where appropriate, homologation of TT Flat tracks. The purpose is to facilitate a level of uniformity and in doing so contributing to safety and fairness for all competitors/participants and Officials. Notwithstanding these guidelines however, the safe operation and management of tracks and events, remains the responsibility of the staging FMN, FMN, clubs, organizers and promoters. For the purposes of obtaining a track license to conduct an international event, additional measures may be required to comply with FIM standards. The FIM publishes these guidelines to assist in the development of tracks for international competition.

It is the responsibility of the staging FMN, clubs, organizers, track operator and promoters to ensure compliance with all local, state and territory or federal laws, regulations and codes, regarding the safe design, construction, management and operation of the track and all support facilities. It is their responsibility that the track and associated facilities are fully compliant with any planning, building, environmental, occupational health and safety, public safety or other local, state or territory laws, regulations or codes. The FIM cannot and does not conduct any business or undertaking to ensure that participants in events, officials or other persons attending such events held at FIM licensed facilities are not put at risk.

1. Track layout

- a) A TT Flat Track circuit can be permanent or temporary.
- b) Competitor safety and spectator viewing should both be considered when designing and constructing the track.
- c) Consideration should be given to drainage in the event of heavy rainfall.

2. Construction Length

120m minimum to 1100m maximum measured along the centre of the entire length of the track. The start straight must not have a jump along its length.

Width

Minimum 10m along the start/finish straight. Each rider should have a minimum width of 1 meter at the start gate.

The width of the usable course should not be less than approximately 8 m at the narrowest point. The course must not have any sudden narrowing.

Starting gate area

1. The start can be either by the use of a start gate, lights or flags.
2. The area in front and behind the starting gate must be prepared in a consistent manner providing conditions as equal as possible for all riders placed on the same row.

The jump

The TT track may incorporate a jump in the centre of the circuit.

1. The layout of the jump must be designed with the riders' safety in mind.
2. Special consideration must be given to the angle of the track at the jump face and landing zone.
3. The jump should not exceed 1m in height.

The jump must be designed in such a way that it can be identified easily by the riders and that it can be completely "rolled" with the wheels of the motorcycle in contact with the soil. The width of the top of the jump must always respect the approximate minimum width of 8 m whereas the width of the section of the course before the jump can be larger, but never more than by 20% at the start of the take-off of the jump (Ex: the top of the jump is 6 m wide; the section of the course before the jump is maximum 7,2 m). The design of the take-off and landing sides of the jump must

be similar and cover the width of the course at that point. It is not allowed to create artificial double lines on the jump.

The width of the track on a jump should be at least 1 meter wider on the landing side than the take off point and subject to the risk being assessed.

The free vertical space between the jump and any obstacle above the ground must be approximately 3 m minimum.

Referee's box

An observation box, placed adjacent to the starting area, must be provided for the referee and must be in accordance with art. 79.7.6.

Parallel contiguous tracks

Where there is opposing traffic i.e. on a loop or where tracks run alongside each other, they are known as parallel contiguous tracks. The danger must be risk assessed before allowing an unprotected area of track to exist.

1. Parallel contiguous tracks should have sufficient distance in between them according to the layout of the course in question.
2. Depending on the distance between parallel contiguous tracks, they should be separated
3. and/or protected by any or a combination of the following:
 - a) Earth banking of maximum 50 cm high;
 - b) Wooden/metal/plastic fence;
 - c) Straw bales/foam or rubber blocks/shock absorbing material;
 - d) Flexible and/or easily breakable advertising material.
4. There should be no spectators in the zone between parallel contiguous tracks.
5. Special attention must be placed on parallel contiguous areas to prevent accidents and also so that no unfair advantage can be gained by any rider cutting them out.

Course marking

The course should be defined on both sides of the actual riding width by any combination of the following:

- a) Manufactured plastic/composite course markers. Course markers must be made of flexible material and be in a contrasting colour from the ground/surroundings. They must have an adequate fixing system into the ground. They must be adequately spaced and fixed into the ground, all along both sides of the course. The top of a marker should be round shaped. Course markers should have a minimum width of 5 cm and maximum 10 cm. The part of the course markers above the ground should not exceed 50 cm.
- b) Straw bales, foam/rubber blocks or other shock absorbing material.
 - 1) Shock absorbing material may be used in addition to the course markers/pegs so as to prevent riders from leaving the course.
 - 2) Shock absorbing material (without plastic wrapping), must be in a contrasting colour from the ground/surroundings.
 - 3) It is recommended to cover the shock absorbing material in a plastic wrapping of a contrasting colour from the ground/ surroundings
 - 4) If the shock absorbing material is being used to mark the course, it is recommended to place it sideways and on the outer side of the marker/post.
 - 5) The height of shock absorbing material above the ground should not be more than 50 cm unless it is being used as a protection tool.
- c) Earth banking.

Earth banking may be used to mark the inside and outside of the course (actual riding width) and

may also be used to separate contiguous tracks.

- 1) The leading edge of the earth banking should always be round shaped.
- 2) The minimum height of the earth banking above the ground should not be less than 50 cm.
- d) Flexible/easily breakable advertising material;
 - 1) Advertising material may be used to mark the course.
 - 2) Advertising material may be used so as to prevent riders from leaving the course.
 - 3) Advertising material may be used to separate contiguous tracks.
 - 4) In all cases, the advertising material should be placed at minimum 1 m from the outer side from the course markers
- 5) Whenever advertising material is placed parallel to the course, then it must be overlapping each other in the direction of the course (as fish scales).
- e) Continuously marked white lines.

3.Public and rider safety

Public zones

1. Zones for the public should be created alongside the course.
2. It is mandatory to restrict the zones for the public to outside of the course and keep the inside of the course free of spectators.
3. Zones closed to the public must be clearly marked.
4. On the race track and other relevant areas, there must be a minimum of two lines of protection between competitors/machines, and members of the public. This should comprise of a safety fence, then a neutral zone, and then a spectator fence.

There must be a safety fence in the area between the markers/posts and the spectator fence. The safety fence can be made of flexible netting or other shock absorbing material. It should be minimum 80 cm in height. The safety fence must be placed 1 m from the outer side of the markers/posts.
5. Zones for the public must be protected by a spectator fence, protected by shock absorbing material.
6. Spectator fencing must be sufficiently sturdy to prevent a motorcycle to pass through or below it. Spectator fences must be positioned at least 2 m from the inner safety fence to create a neutral zone.
7. The minimum height of a spectator fence situated 2m from the inner safety fence is 2 m. This minimum height can be reduced to an absolute minimum of 1.2m if the neutral zone is increased.
8. The FIM jury president and the clerk of the course are allowed to jointly relocate the zones for the public whenever they judge it necessary for safety reasons.
9. The spectator fence may have gates which must be well controlled.

Protection of obstacles

Straw bales and/or foam/rubber blocks in a plastic wrapping, or other shock absorbent materials to protect the riders from danger must be placed to cover all obstacles that may pose a potential hazard sufficiently, such as poles, bridges, publicity, podiums, walls, camera posts, etc.

Flag Marshal posts

There must be a sufficient number of official flag marshal posts all around the course in order to give information by flag signals to the competitors during a race. The posts must be distinctly indicated, and the location chosen so that signs given are clearly visible to the competitors. The number of the flag marshal post must be indicated at each post.

The areas where marshals are to be positioned should provide the utmost safety. Posts must be well situated to ensure an overall view of the track by the marshals. Flag marshal positions should

be placed bearing in mind the safety of the flag marshals so that they are not in the run-off areas or where an accident may occur.

The dimensions of the track and safety features are recommendations which should be followed as closely as possible. At its sole discretion the FIM can agree on other dimensions following recommendations from the FIM track inspector.

4. Surface

- a) The top surface must be granite, shale, brick granules, or similar unbound material rolled in on the base ground.
- b) The grain size of the material used for top dressing should not exceed 7 mm in diameter.
- c) The depth of the dressing should be not less than 30 mm.
- d) The use of concrete or paved surfaces on the course is forbidden

5. Maintenance

To preserve the evenness of the top dressing, it should be graded as necessary between races. Graders should be constructed so that they replace the top dressing on the inside area of the track from the outside where it has been thrown during racing.

Note: Special consideration should be given to drainage in the construction of the track to guard against the effect of adverse weather conditions.

6. Applications for track inspection

Applications for licensing of TT Flat Tracks must include a drawing of the track and surrounds, which must include the following:

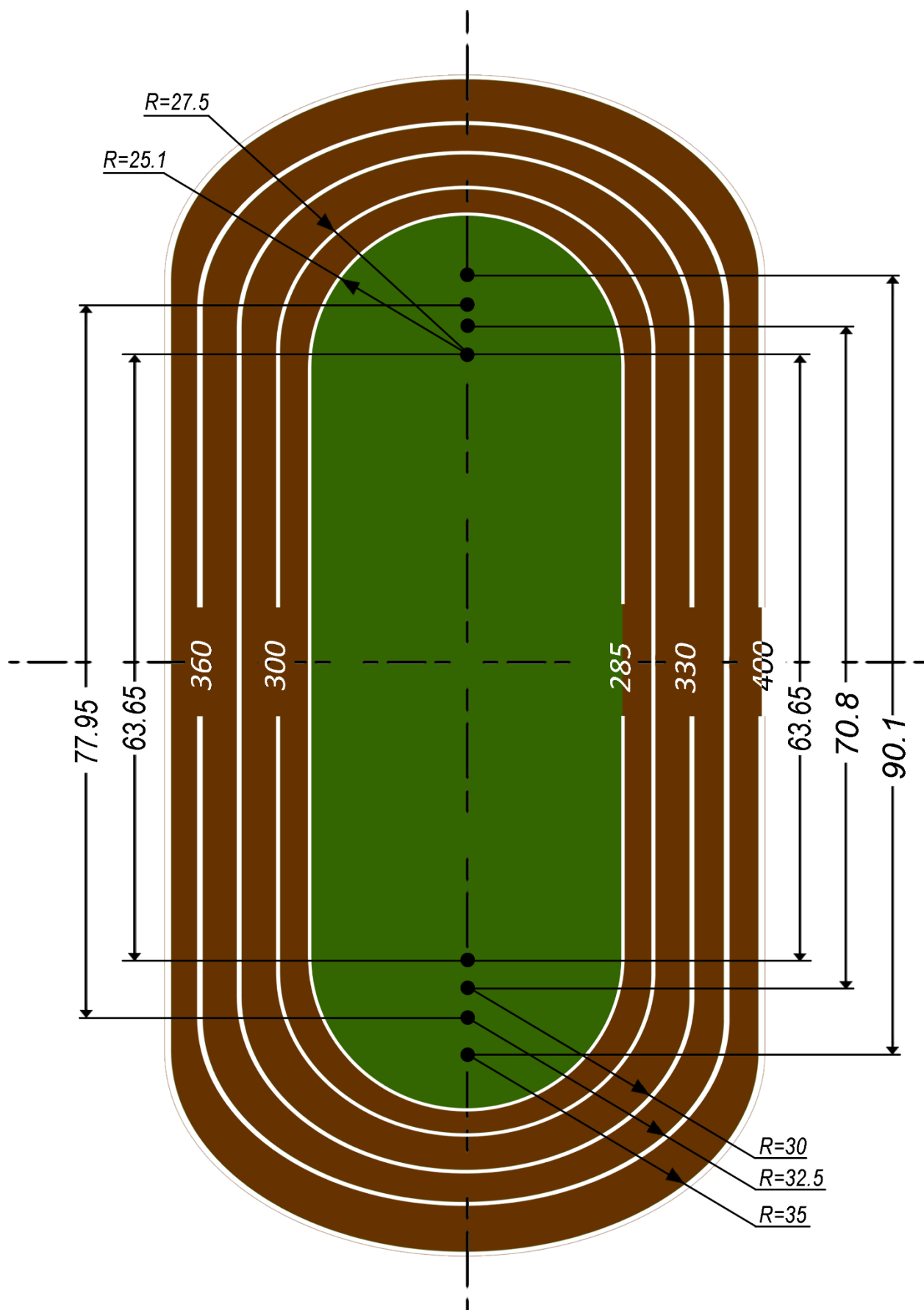
- a) The racetrack proper,
- b) The location, extent, height and construction type of the first line of protection (safety fence),
- c) The location, extent, height and construction type of the second line of protection (spectator fence),
- d) The location and extent of pit entry/exit roads,
- e) The location, extent and size of all marshal points, details of the track watering system and any other features within the racing arena,
- f) The location and number of competitor and spectator toilet/shower facilities,
- g) the location of first aid rooms/units,
- h) The location of ambulance parking site and entrance to racing arena,
- i) The GPS location of the track.

79.3.1

TRACK MEASUREMENTS – Speedway

Radius of bends to length of straights – metres

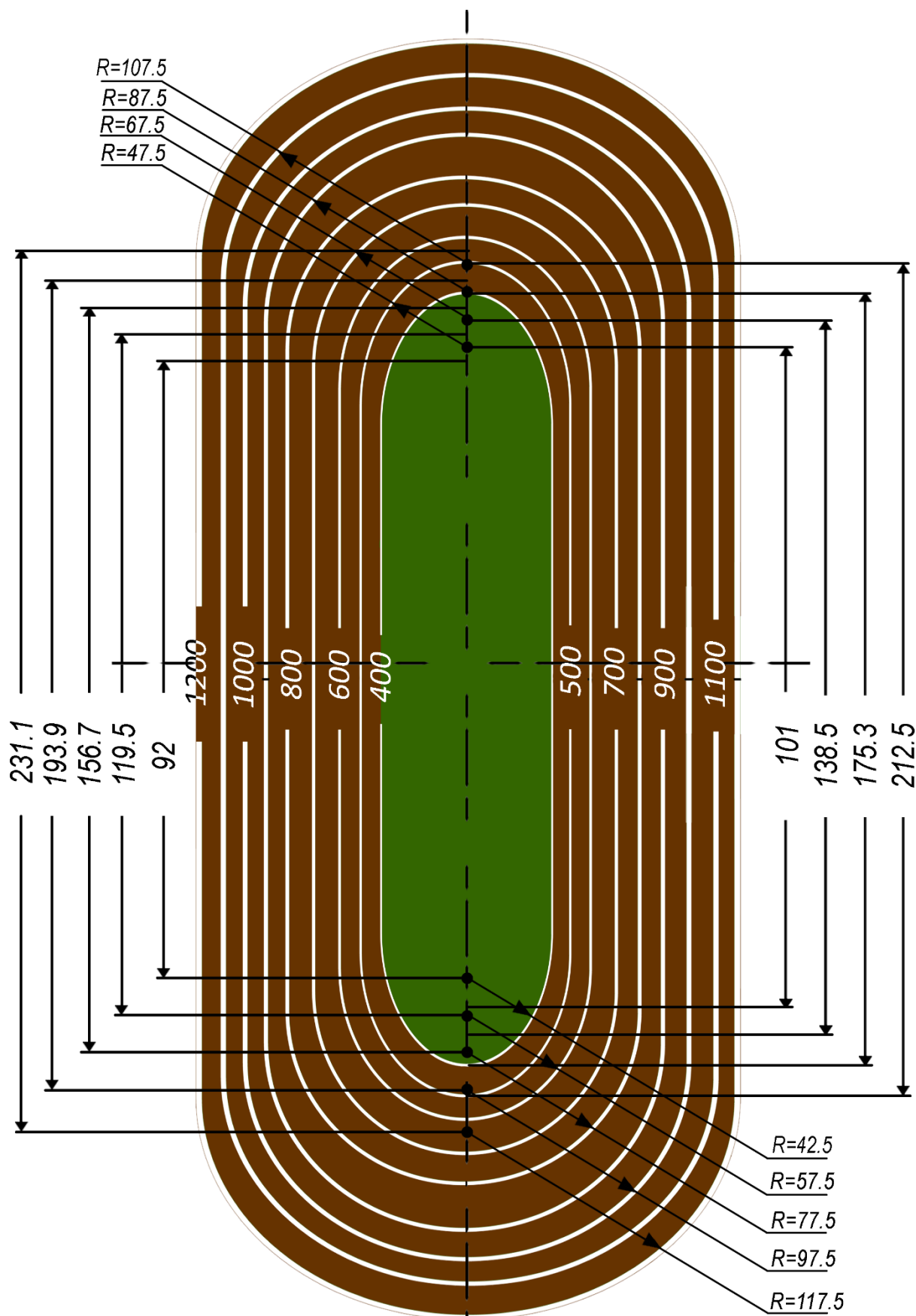
Examples but not compulsory



79.3.5

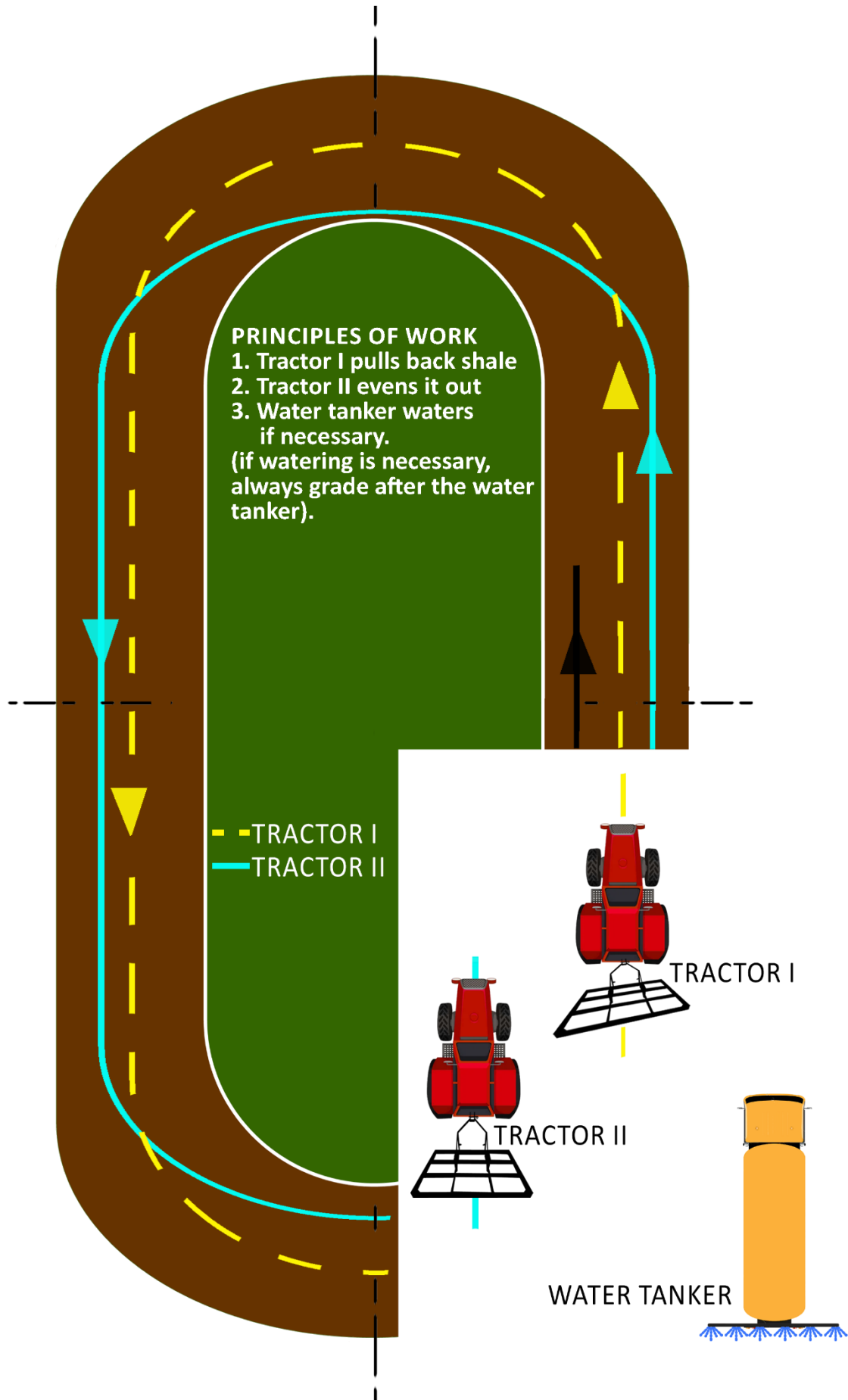
TRACK MEASUREMENTS – Long Track

Radius of bends to length of straights – metres
Examples but not compulsory



79.3.5

GRADING AND WATERING OF THE TRACK

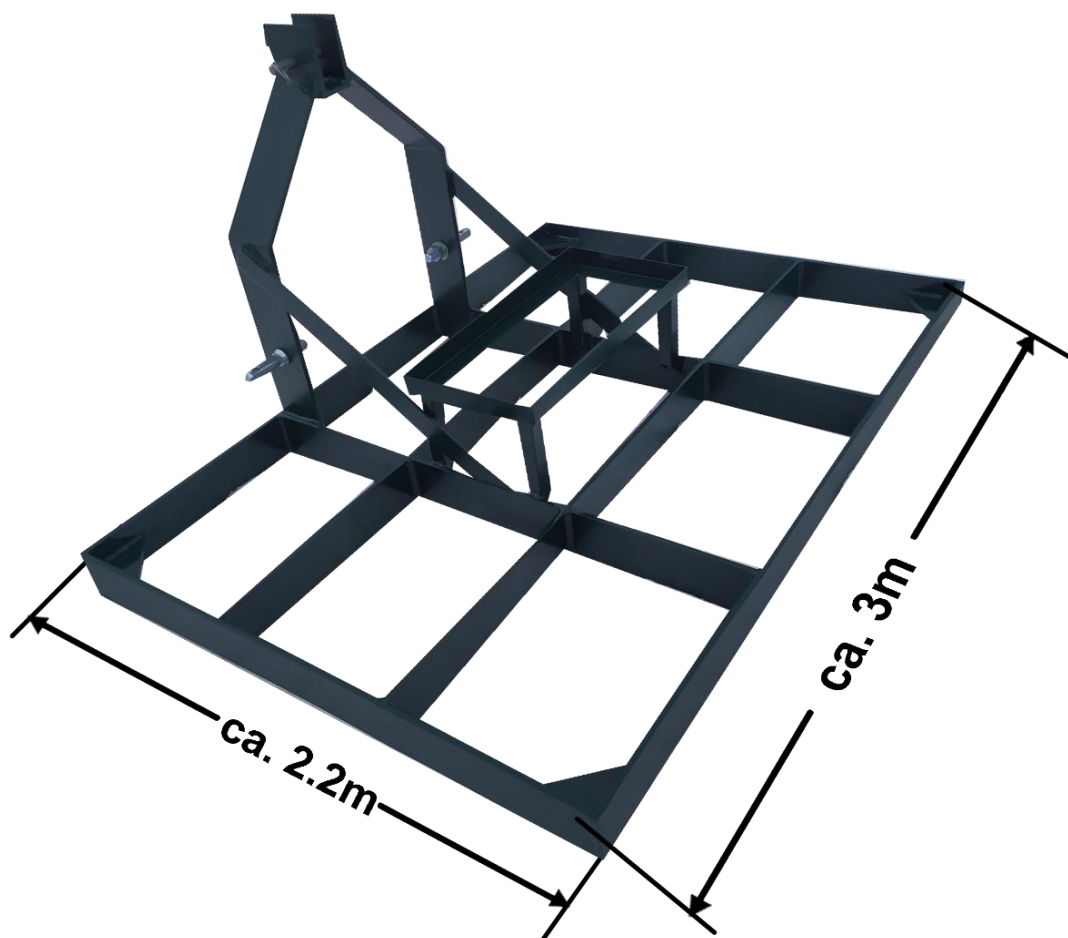


79.3.5

EXAMPLES

EQUIPMENT FOR PROPER TRACK MAINTENANCE

CONSTRUCTION OF GRADER



FIXING TO THE TRACTOR



79.3.5

TRACK MAINTENANCE

NOT SO:

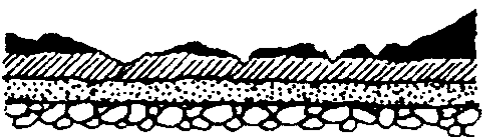
Grading after each 4th heat or less



Track before racing



Track after first race



Track after second race



Track after third race



Track after fourth race

BUT SO:

Grading after each heat



Track before racing



Track after first race



Track before second race



Track after second race



Track before third race

Result: Track foundation ruined.
Racing poor and safety jeopardize!

79.3.5

EXAMPLES

EQUIPMENT FOR PROPER TRACK MAINTENANCE

GRADER FOR RESTORATION OF LEVEL OF SUB-SOIL

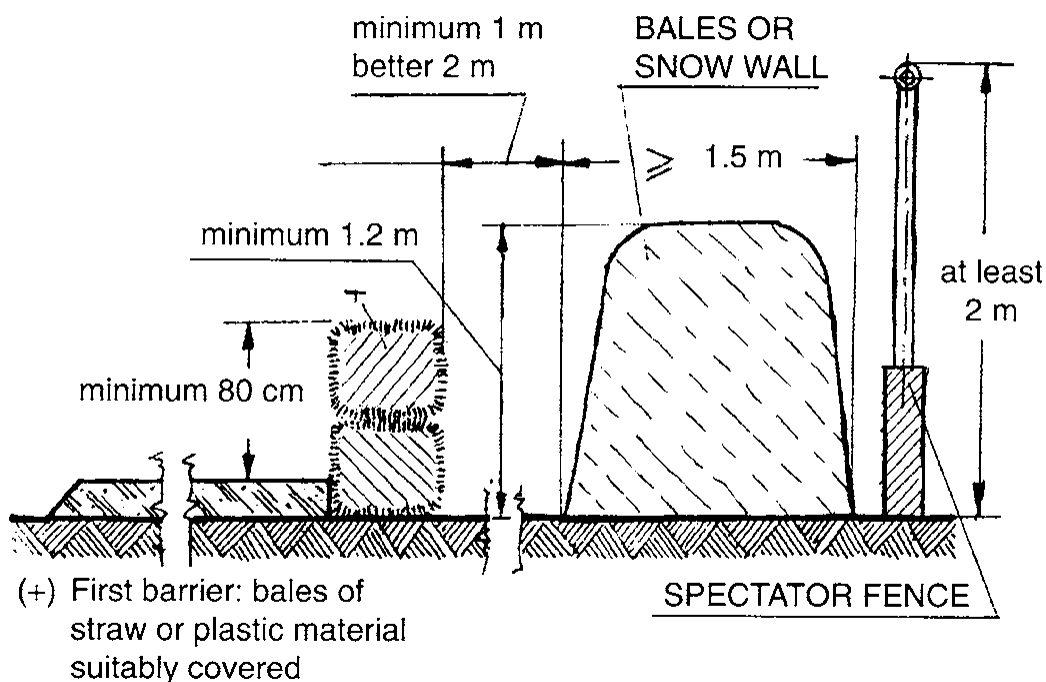


FARMING EQUIPMENT FOR WATERING BETWEEN HEATS



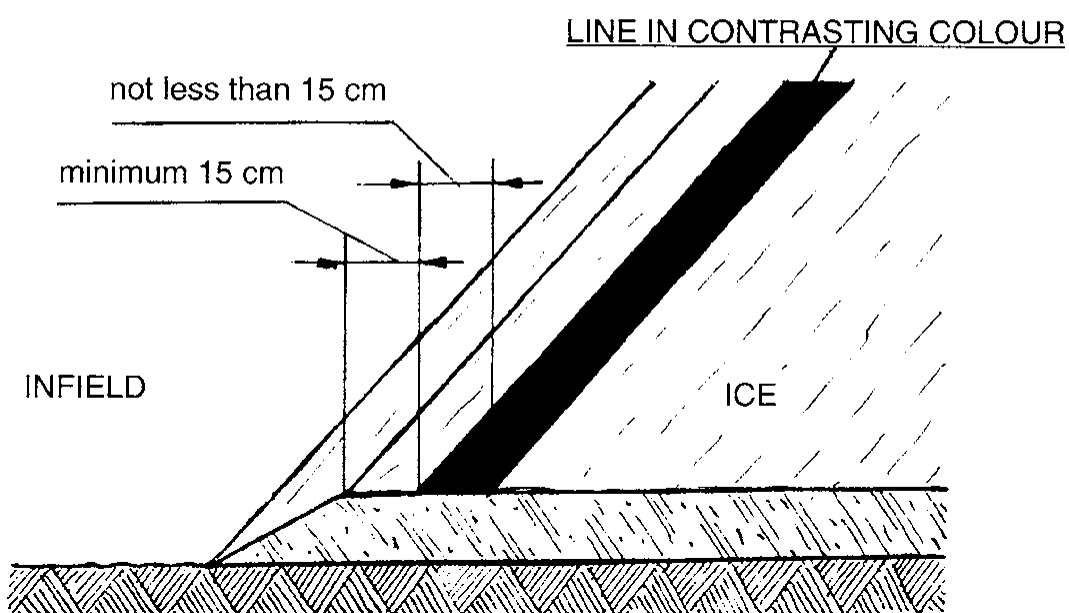
79.4.1

SAFETY BARRIERS FOR ICE TRACKS

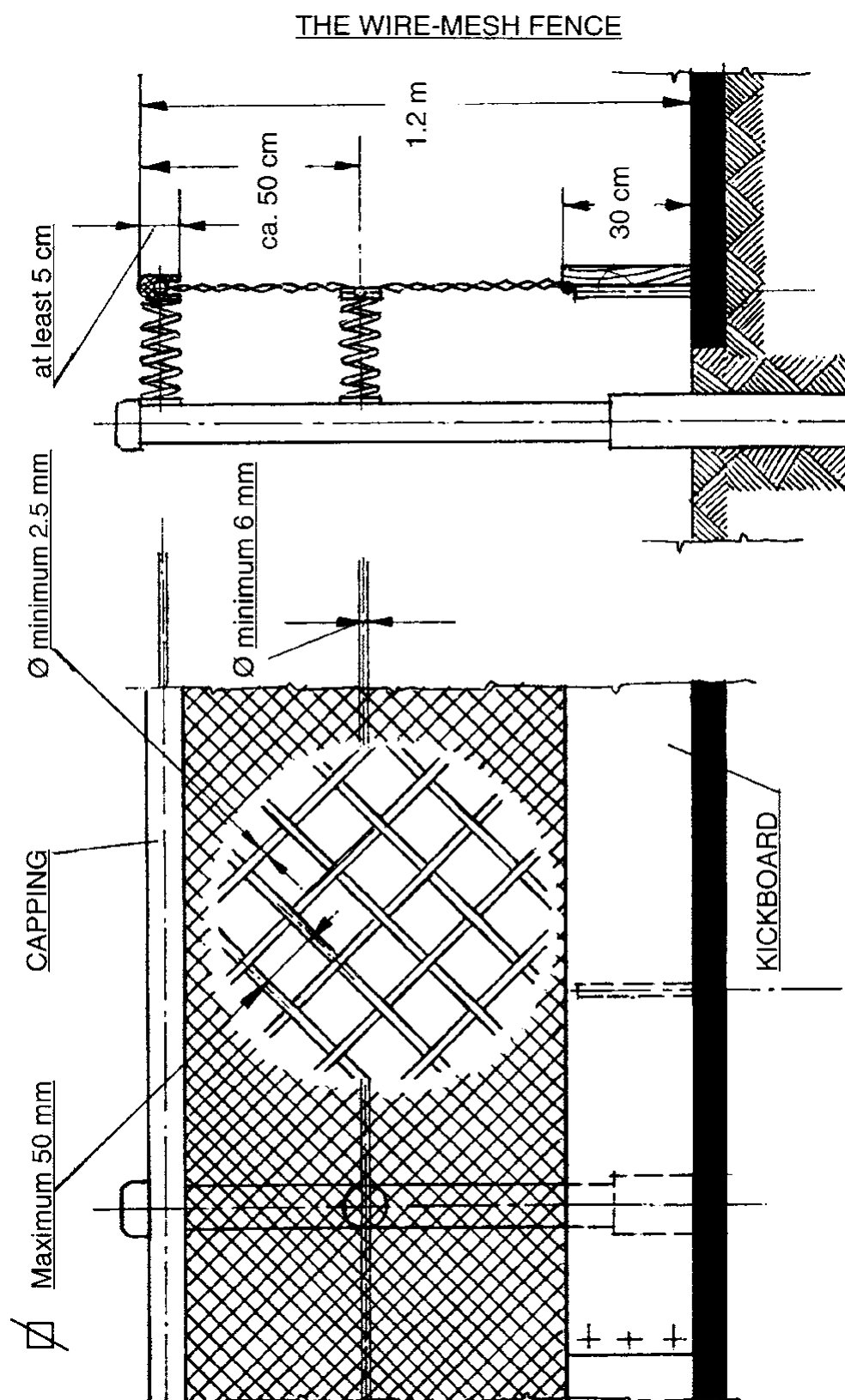


Art. 079.5.2

MARKING OF THE INSIDE EDGE OF THE BENDS ON THE ICE-TRACKS



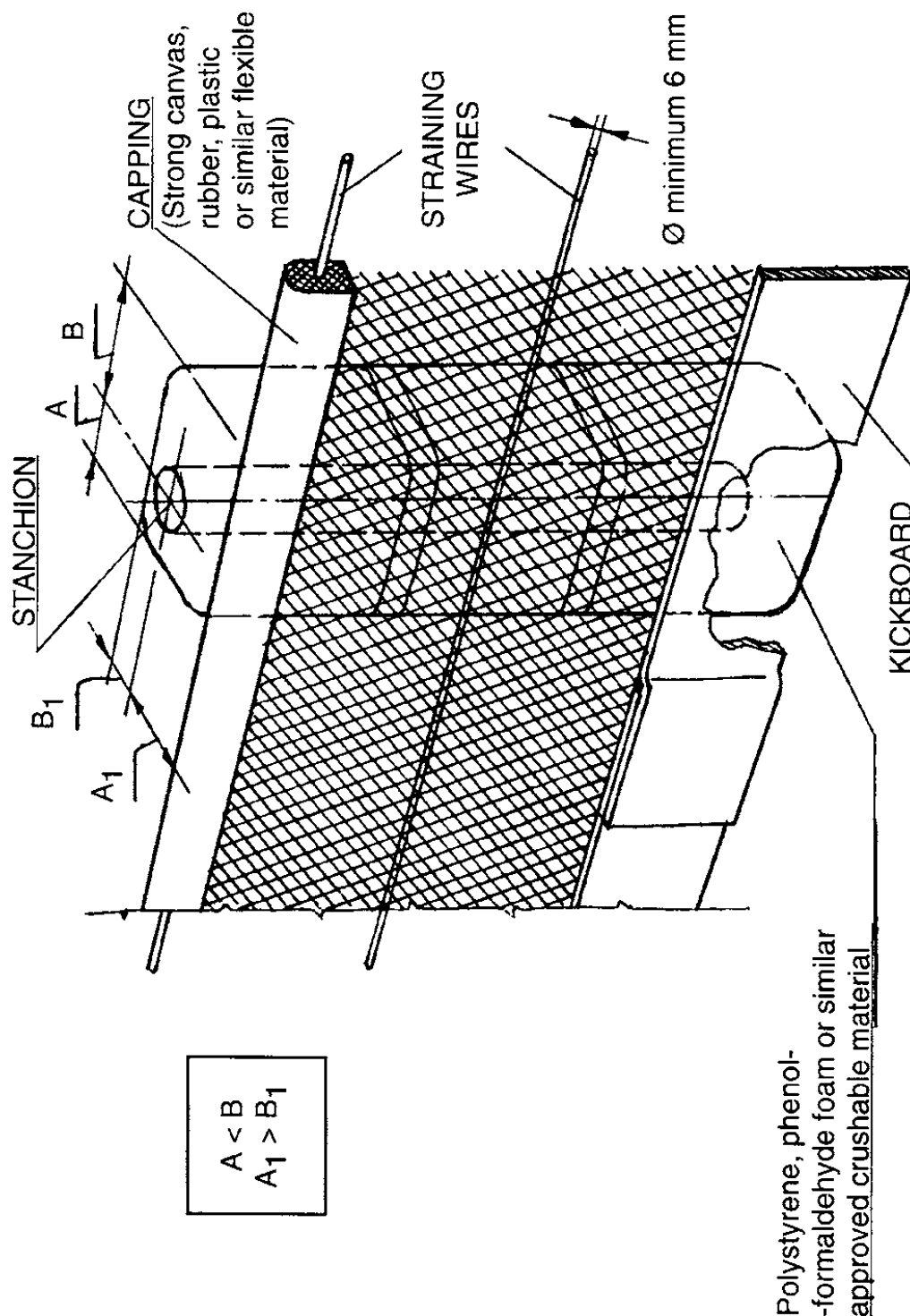
79.4.4



79.4.4

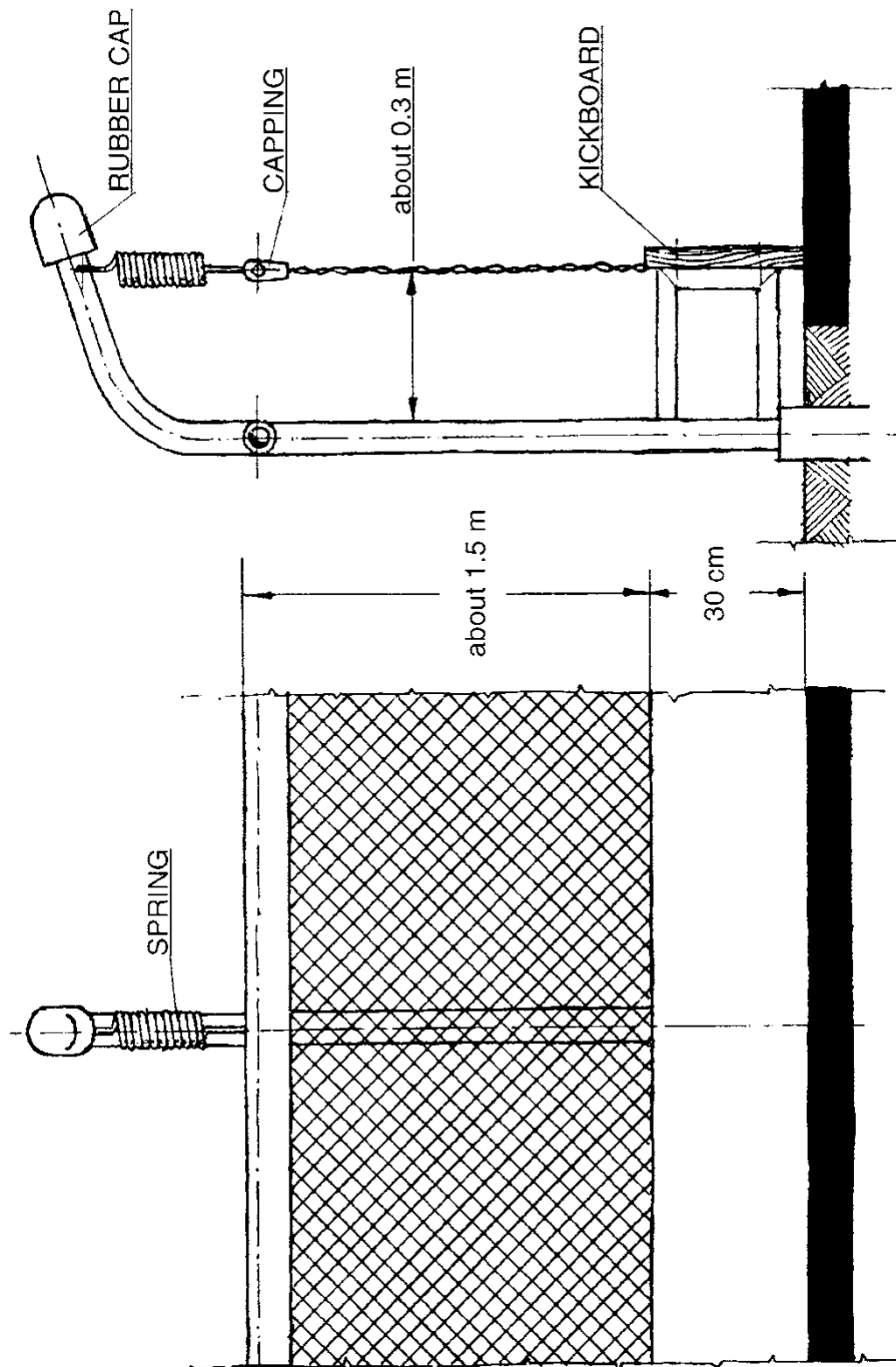
THE FENCE - OF WIRE-MESH CONSTRUCTION

(Stanchion protected)



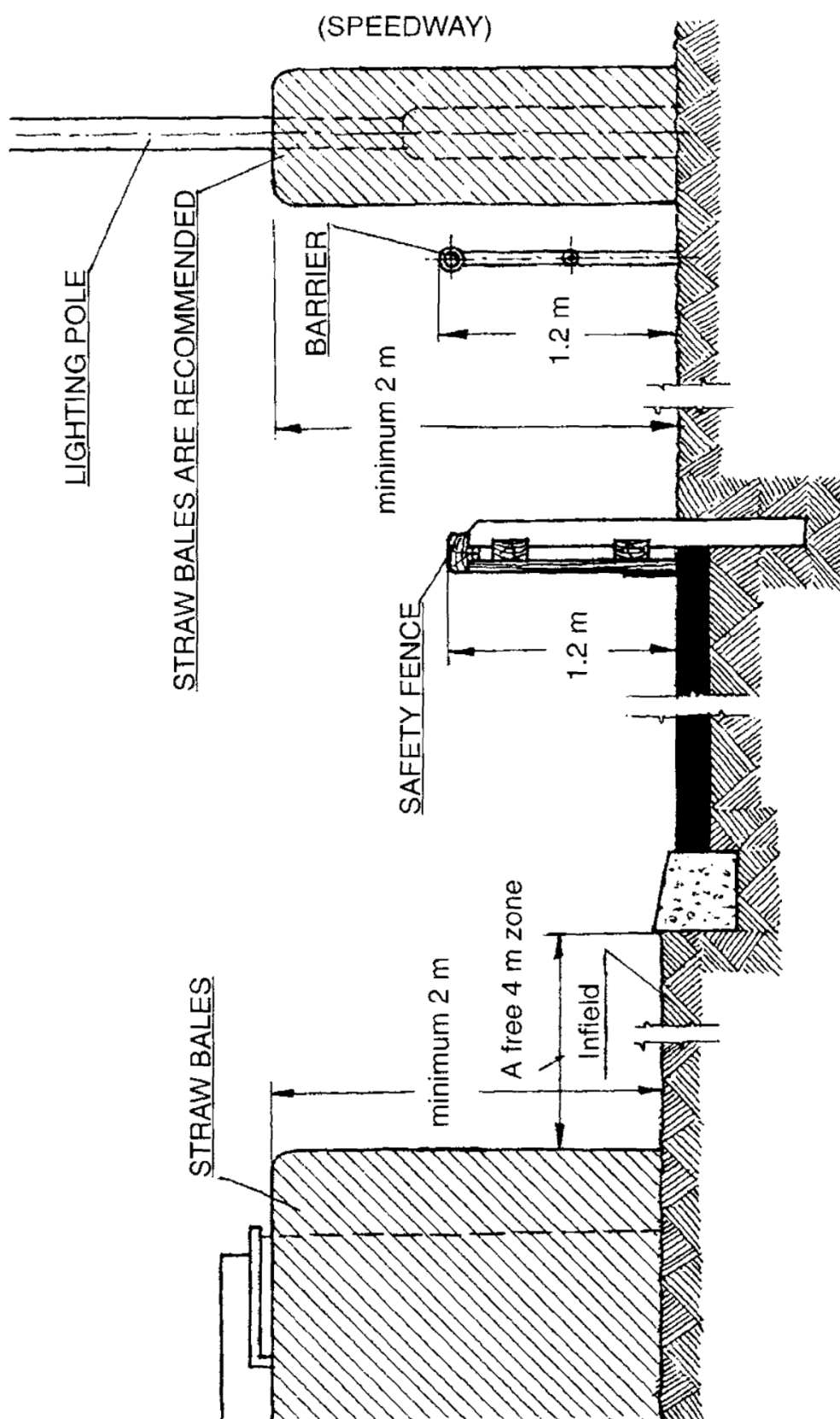
79.4.4

WIRE-MESH FENCE (SUSPENDED)



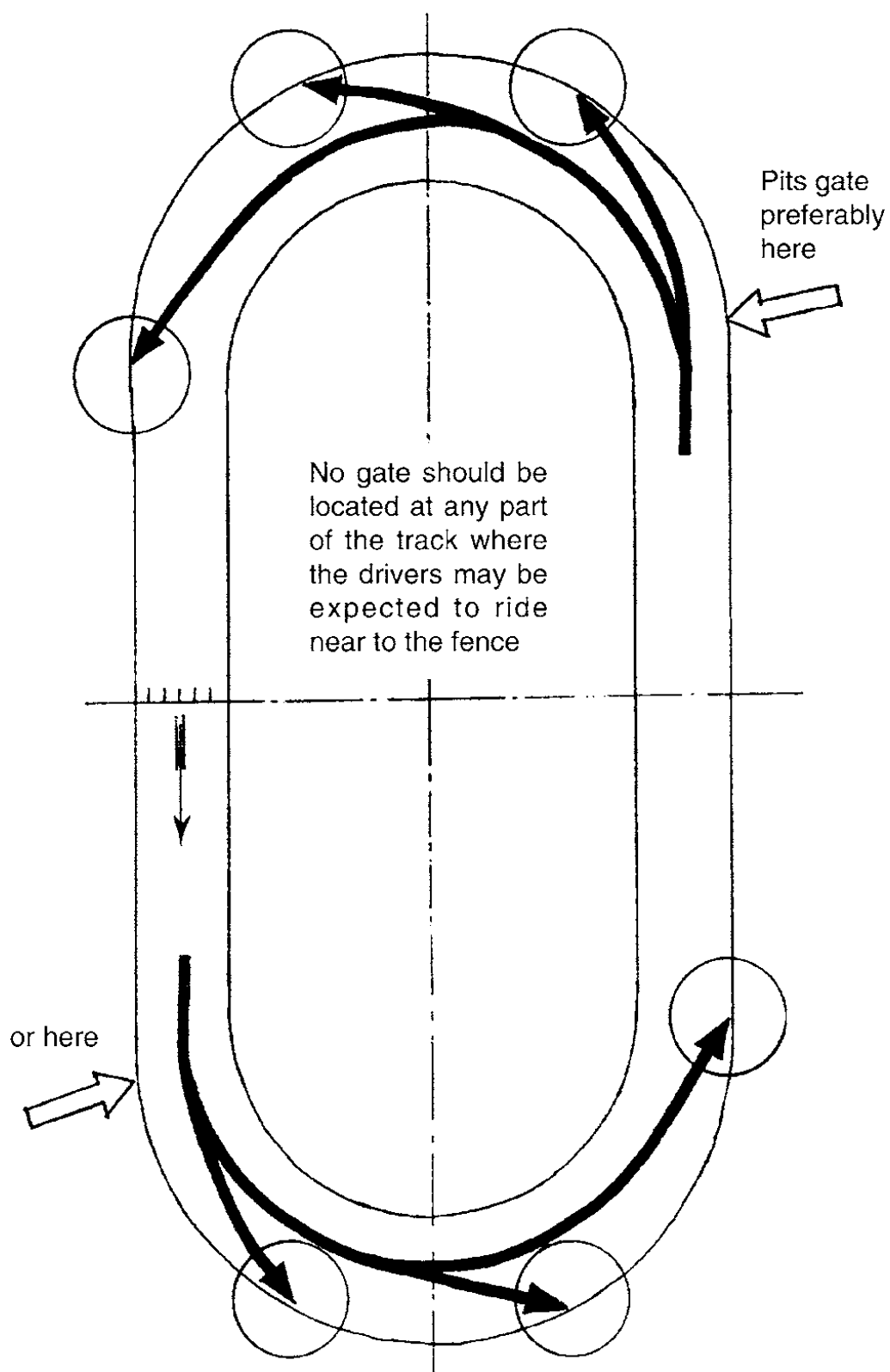
79.4.4

COVERING OF OBSTACLES ON INSIDE AND OUTSIDE OF FENCE

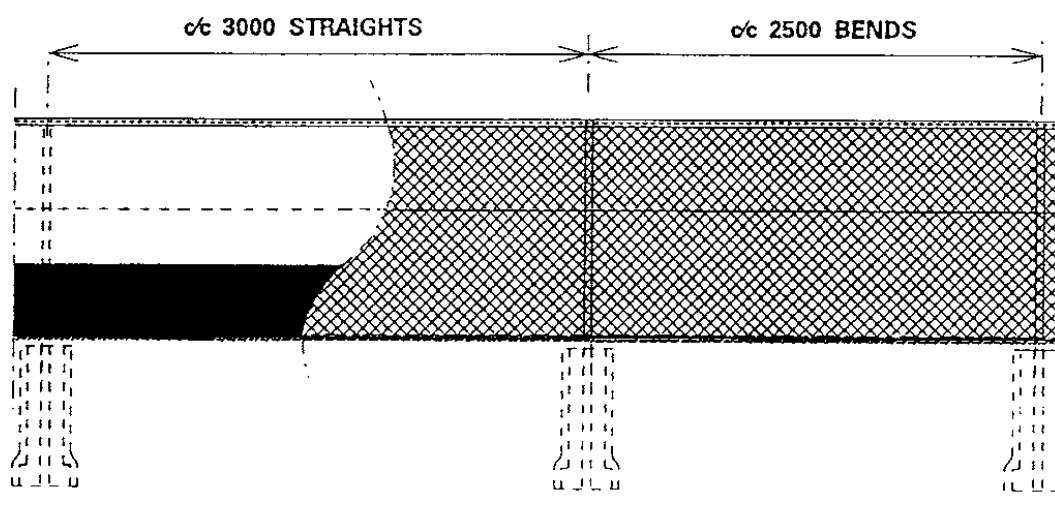
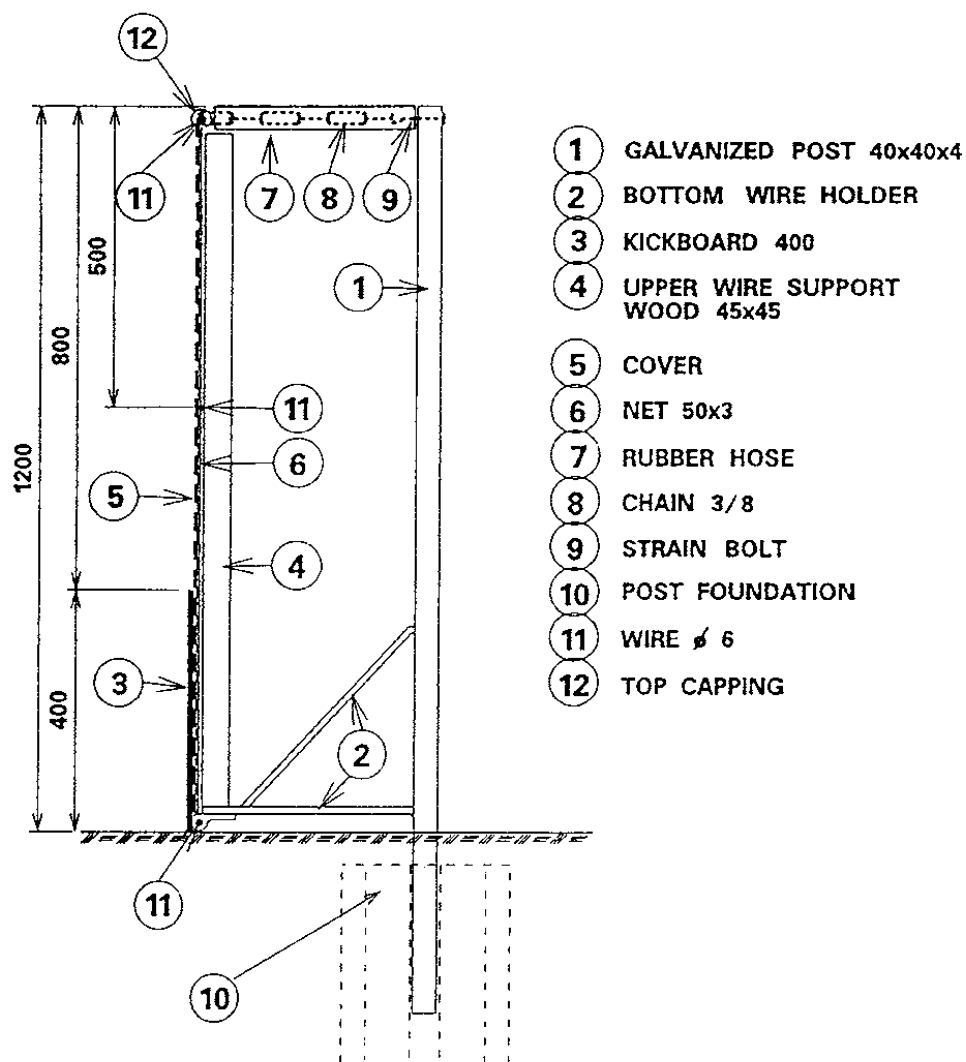


79.4.7

DANGEROUS PARTS OF THE FENCE

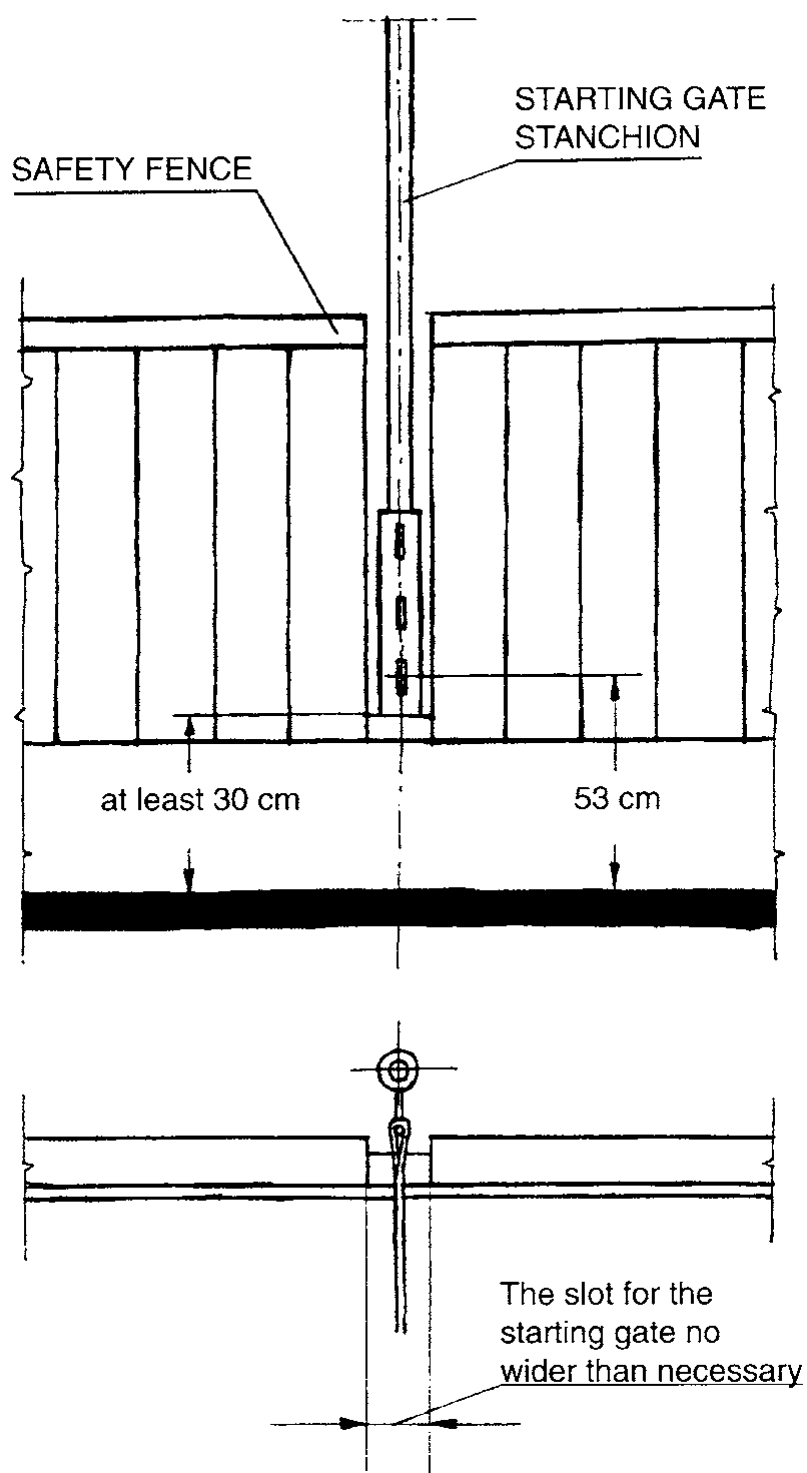


79..4.4



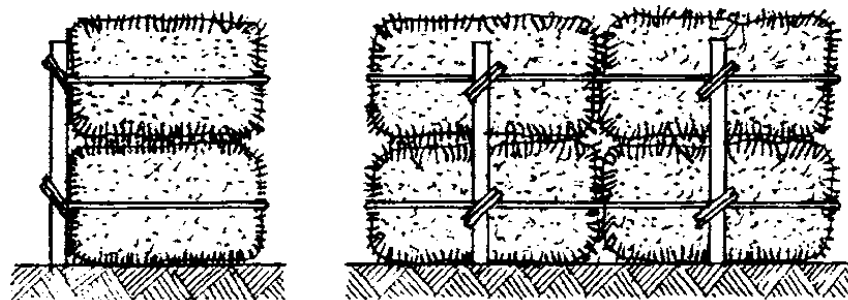
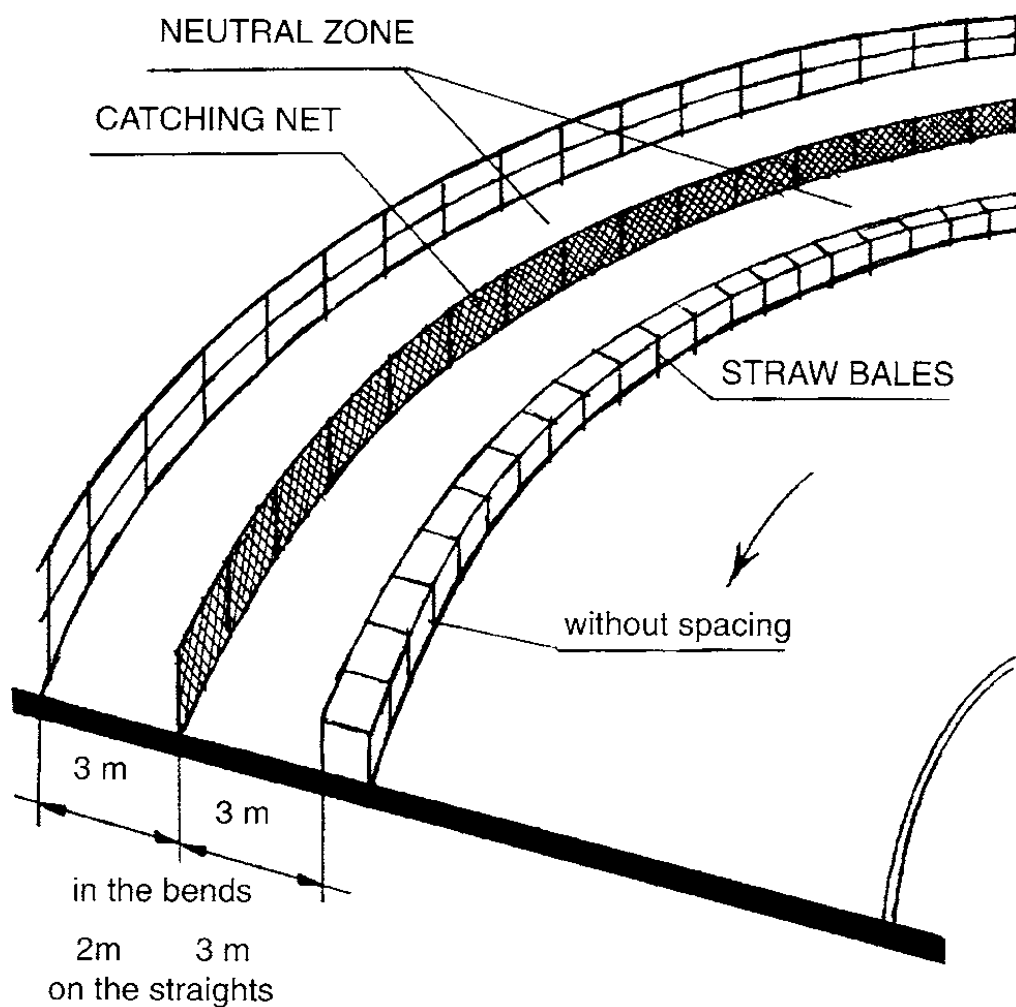
79.4.7

OPENING IN THE FENCE FOR THE STARTING MACHINE



79.4.5

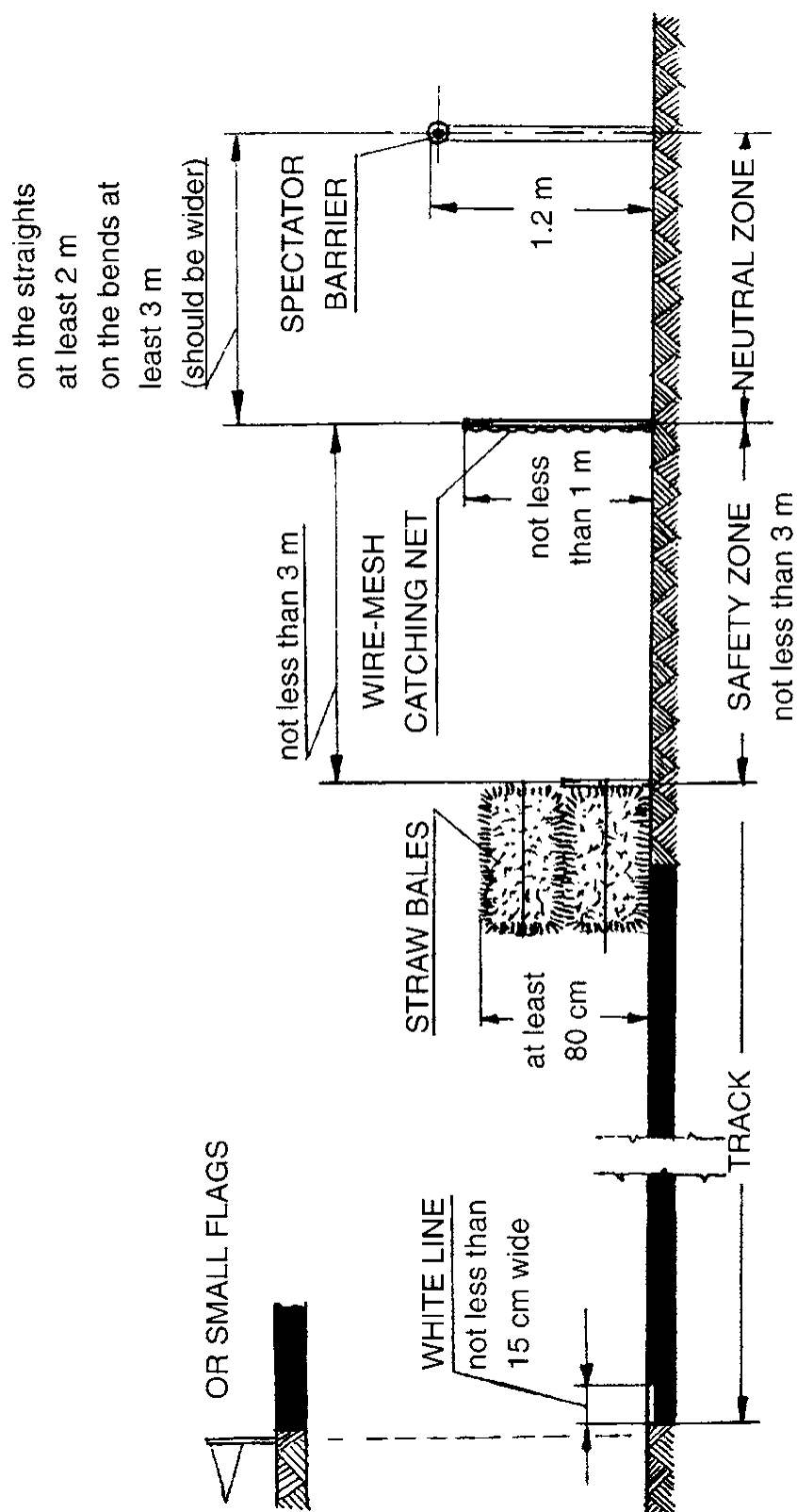
TEMPORARY FENCE OF STRAW BALES



STRAW BALES MUST BE ATTACHED TO EACH OTHER

79.4.5

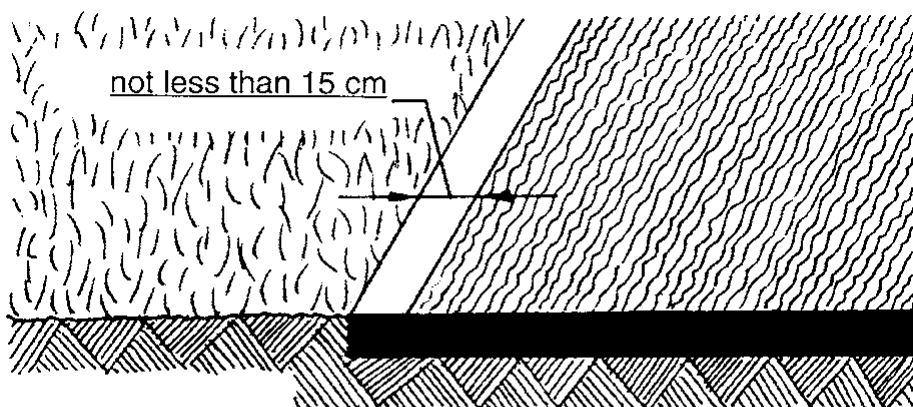
FENCE WITH STRAW BALES ON TEMPORARY TRACKS



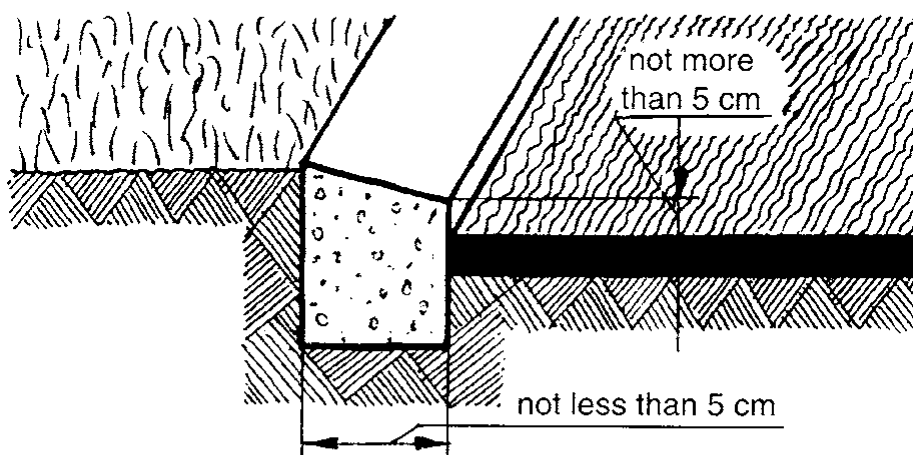
79.5.2

MARKING OF INSIDE EDGE (SPEEDWAY)

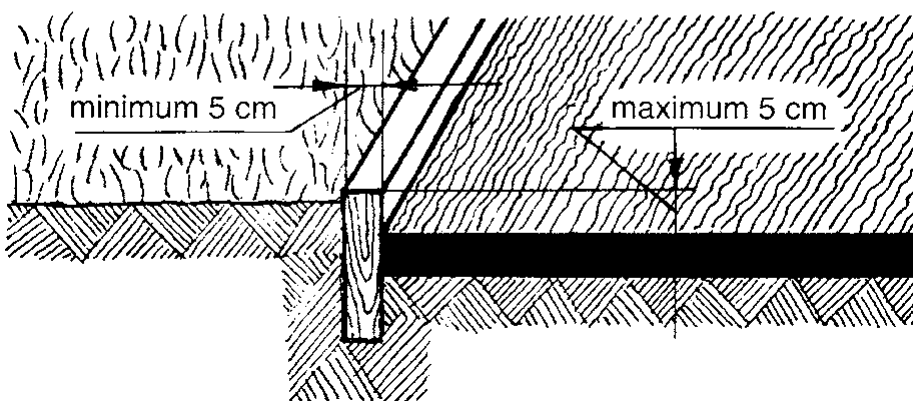
WHITE LINE



CONCRETE KERB



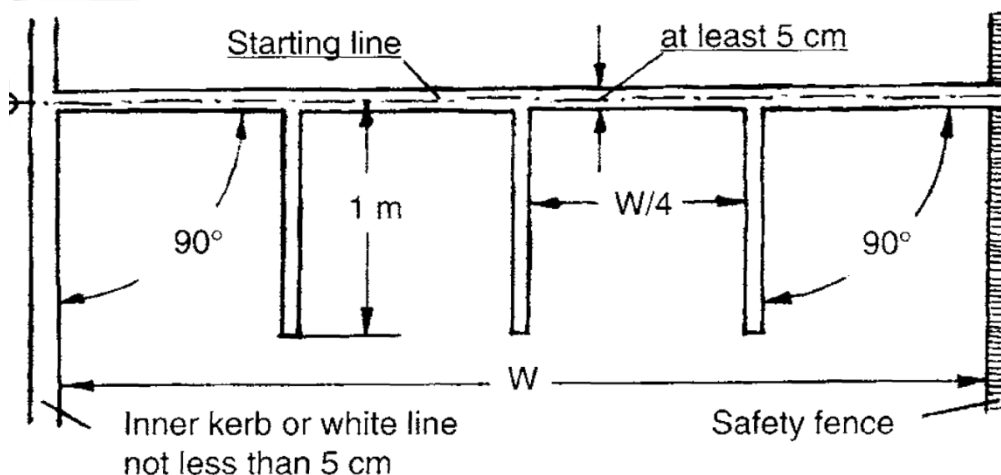
LIST OF WOOD OR SIMILAR MATERIAL



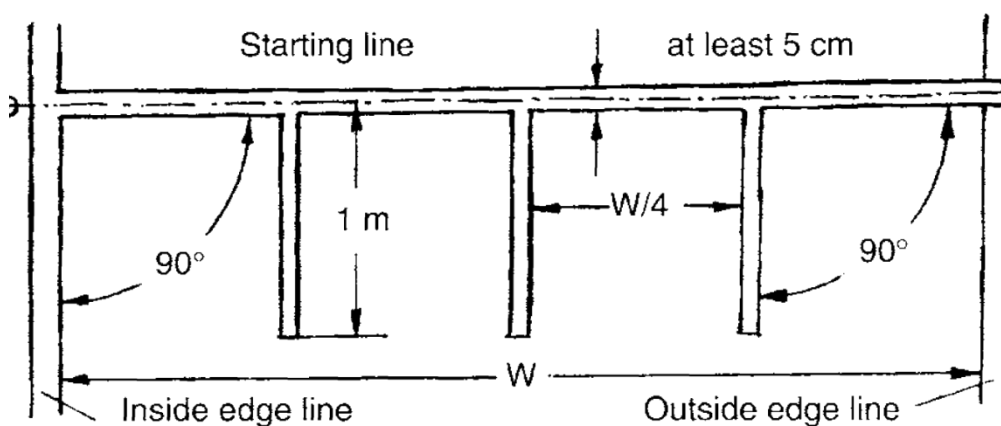
The starting line should be positioned in the middle of the straight, but never less than 35 m from the entrance to the first bend on Speedway and Ide tracks; or not less than $2/5$ of the length of the straight before the first bend and not less than $3/5$ of the length of the straight after the bend on Long and Grass tracks.

THE STARTING AREA

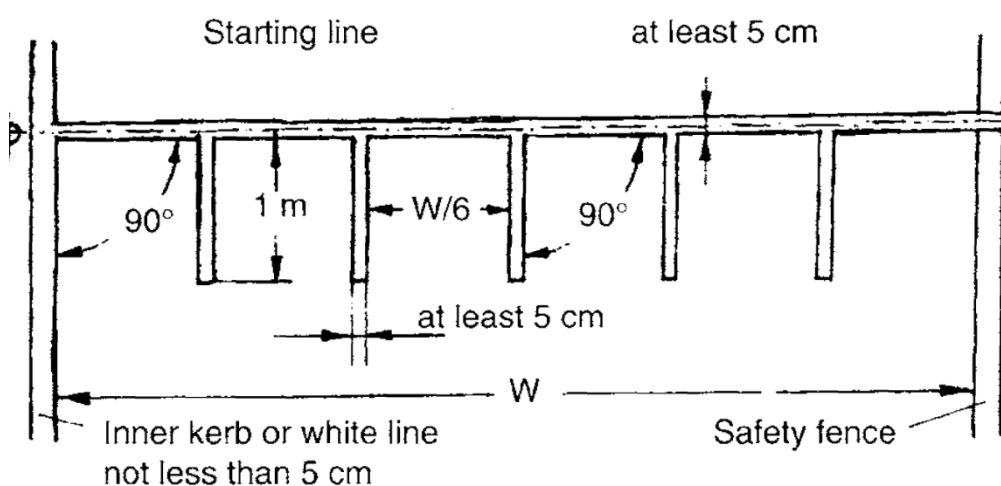
SPEEDWAY



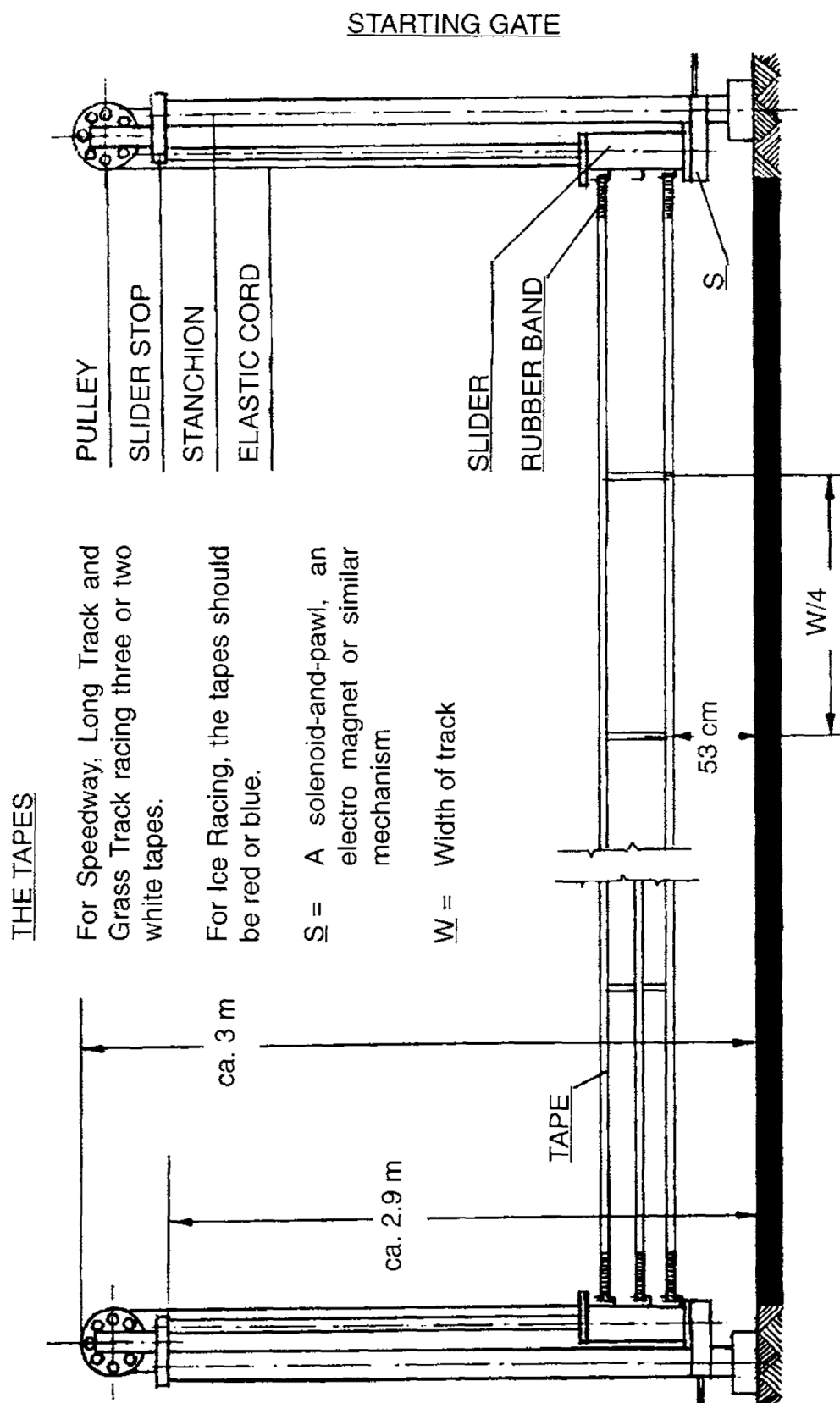
ICE RACING



SPEEDWAY, LONG TRACK AND GRASS TRACK RACING

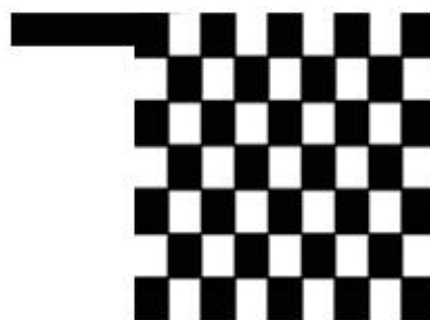
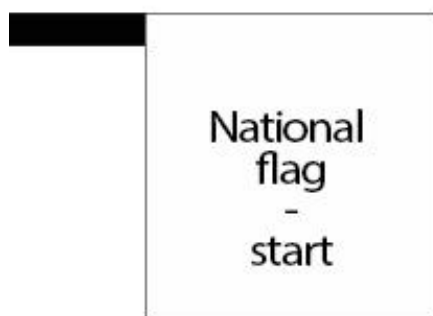


79.7.3

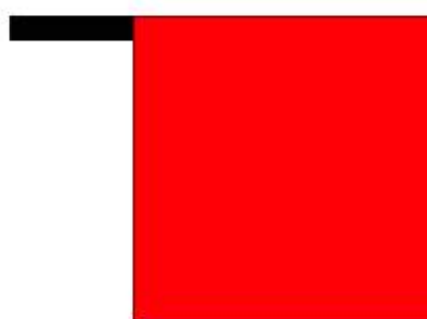


79.7.4

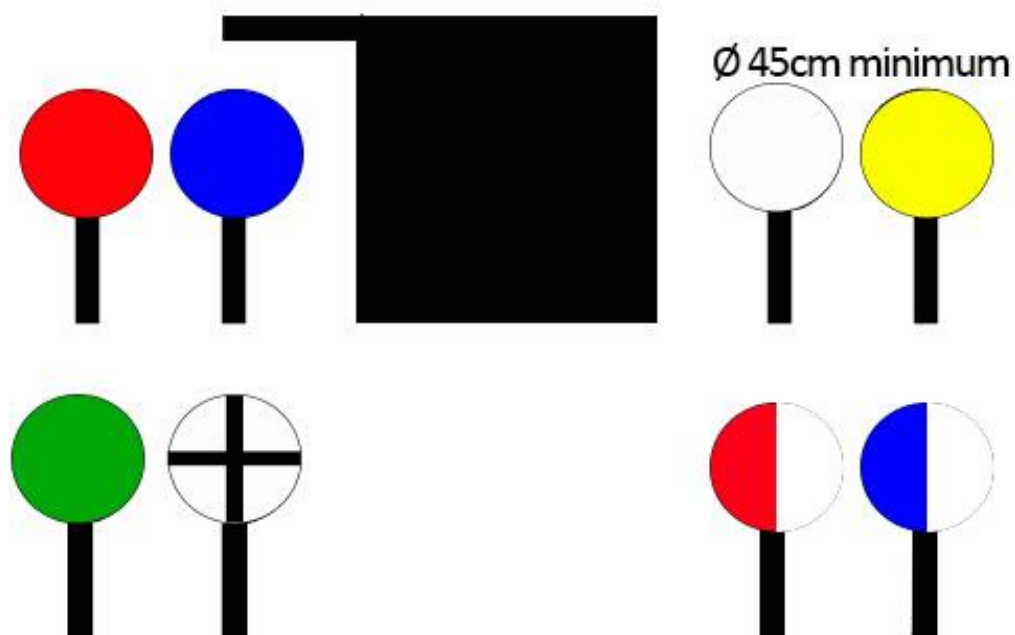
SIGNALS FLAGS & DISCS



Flags minimum size: 60 x 60cm

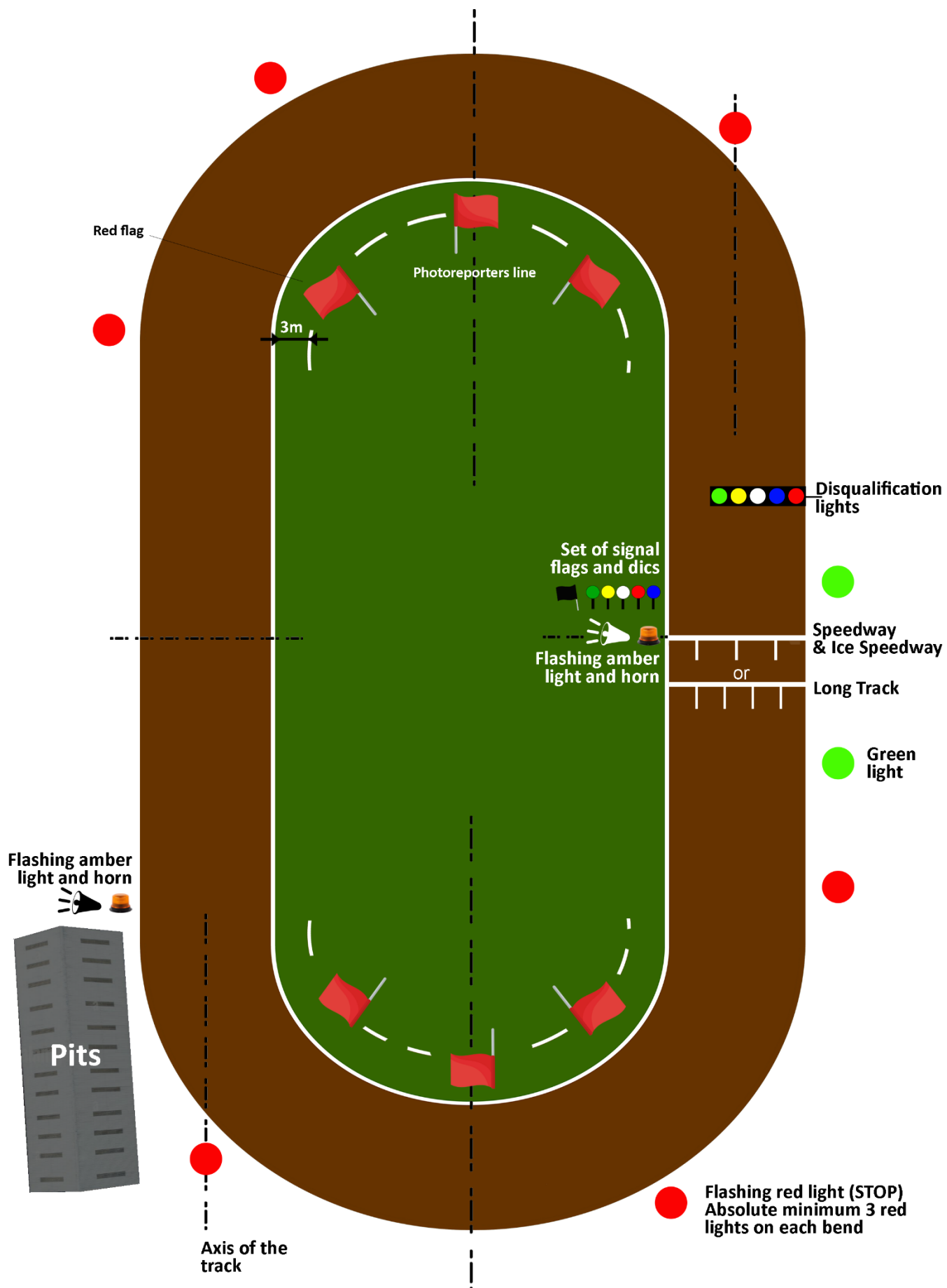


DISQUALIFICATION SIGNALS

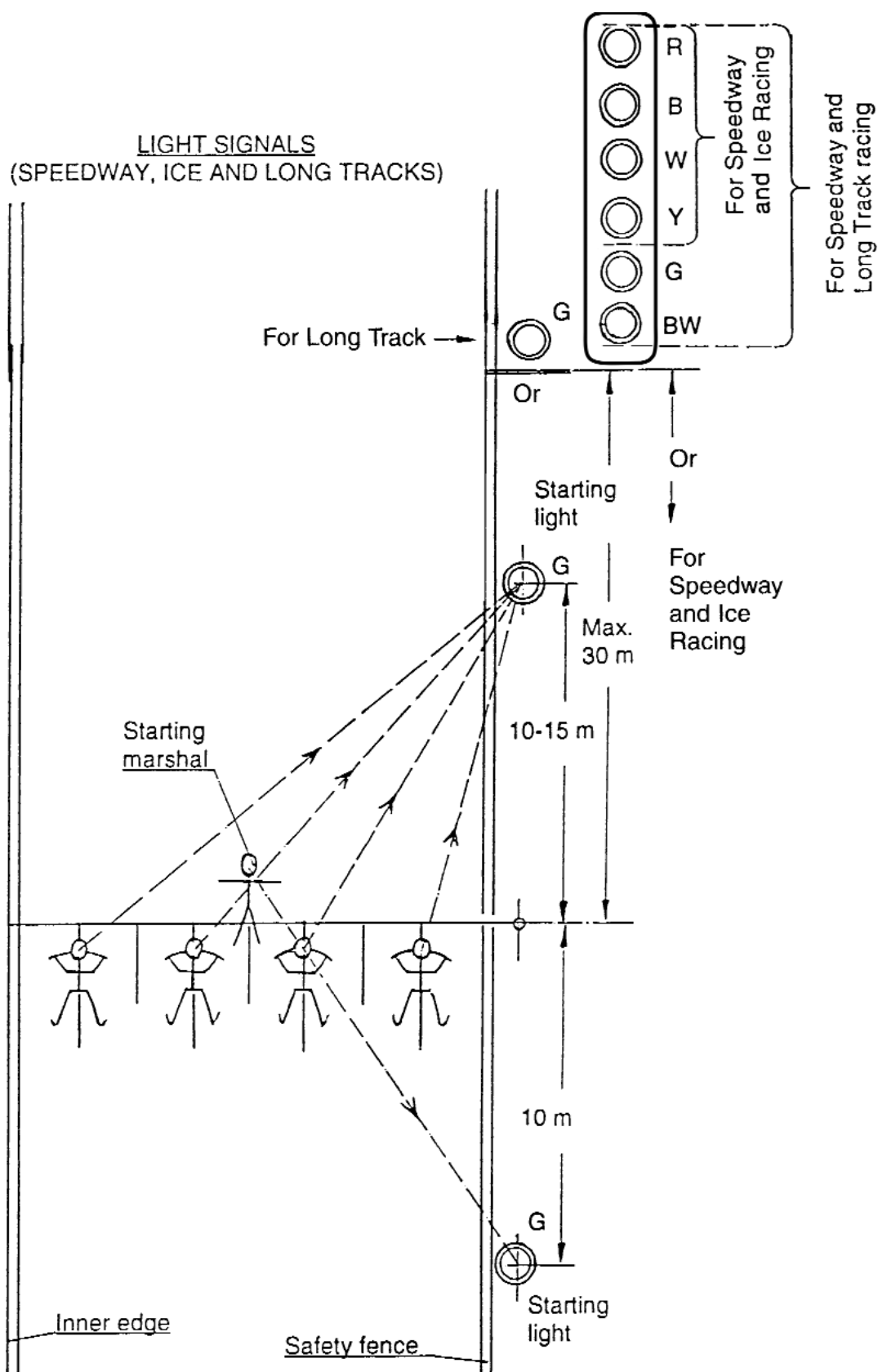


79.7.4 and 79.7.5

TRACK SIGNALS (Speedway, Ice and Long Tracks)

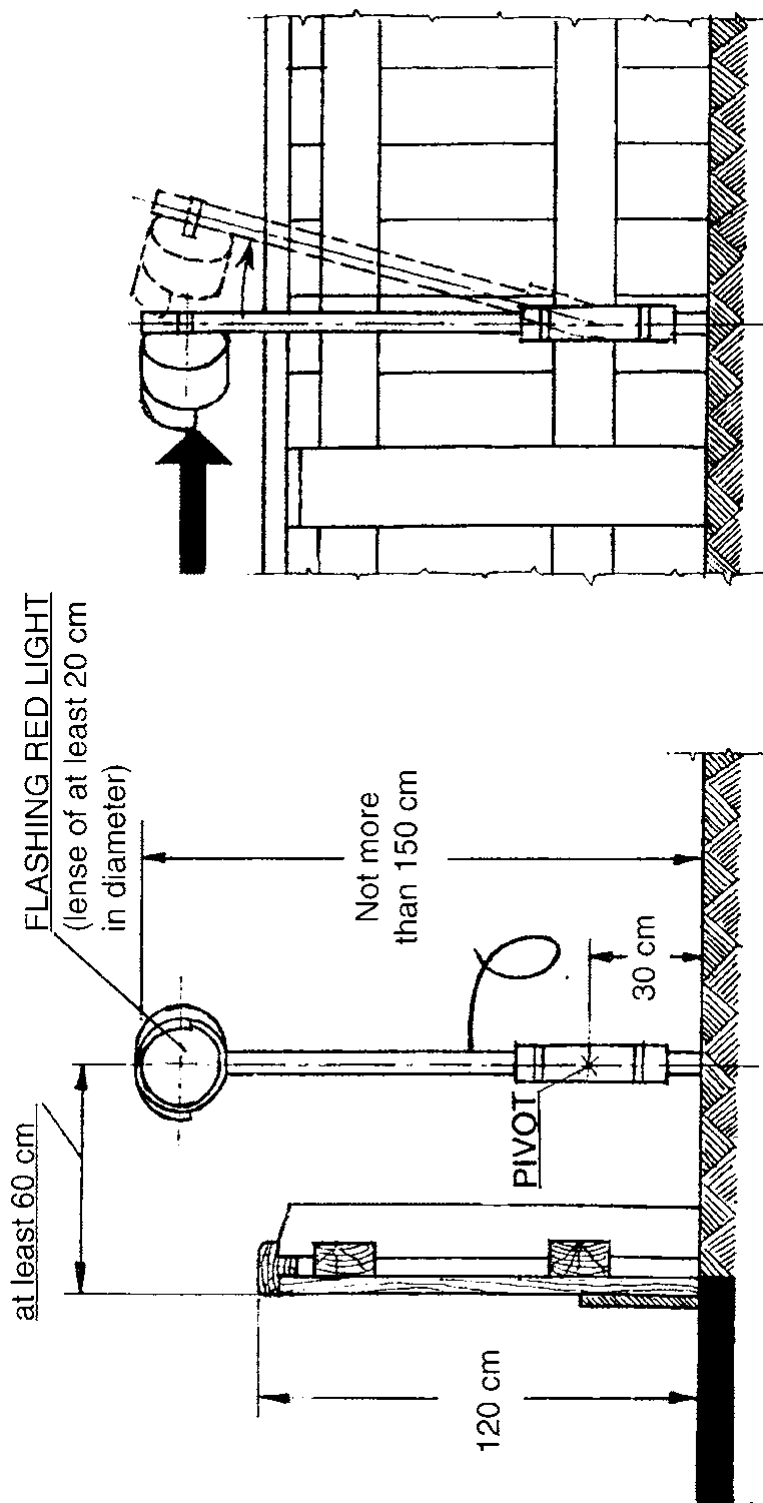


79.7.5 Disqualification Lights

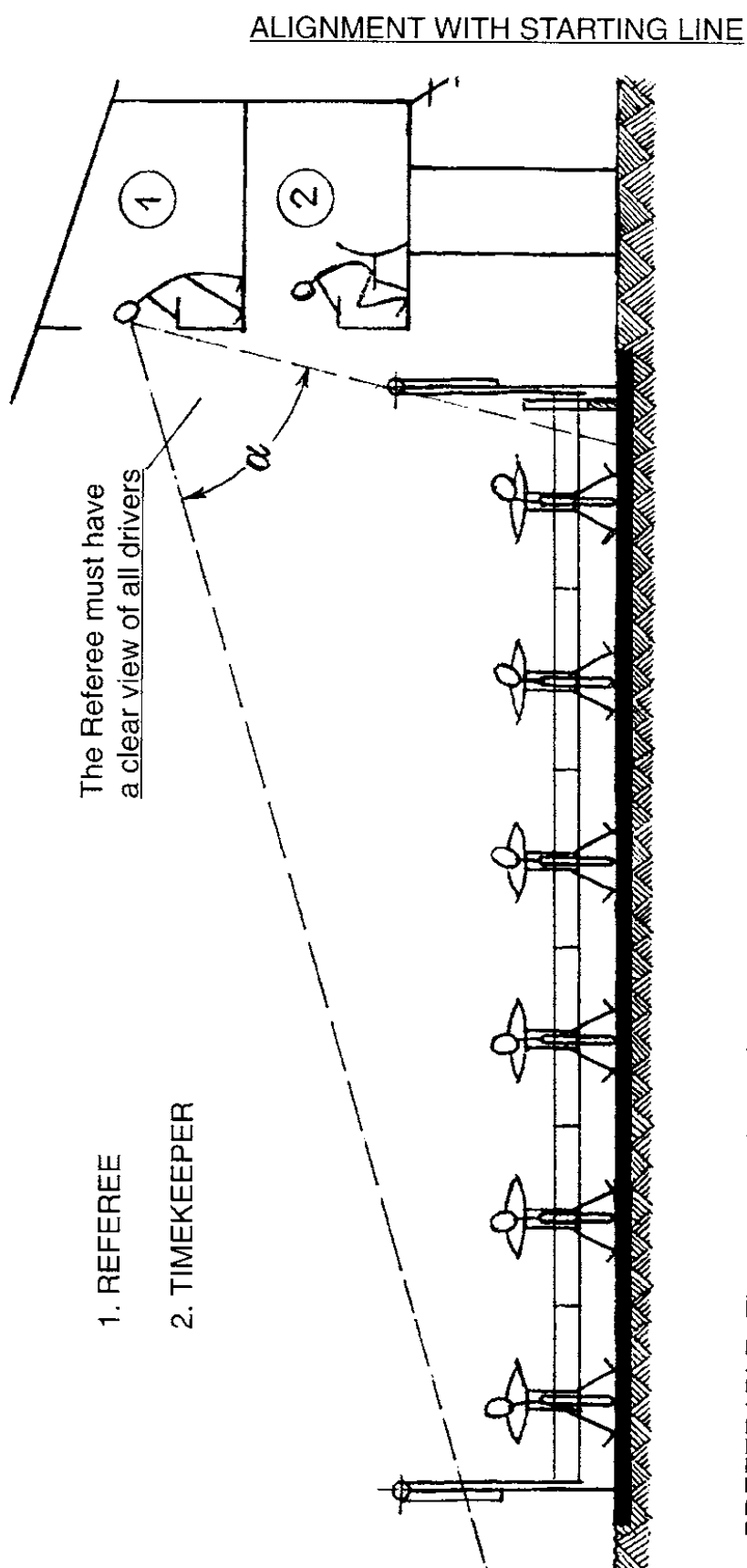


79.7.5

PIVOTS FOR RED STOP LIGHTS



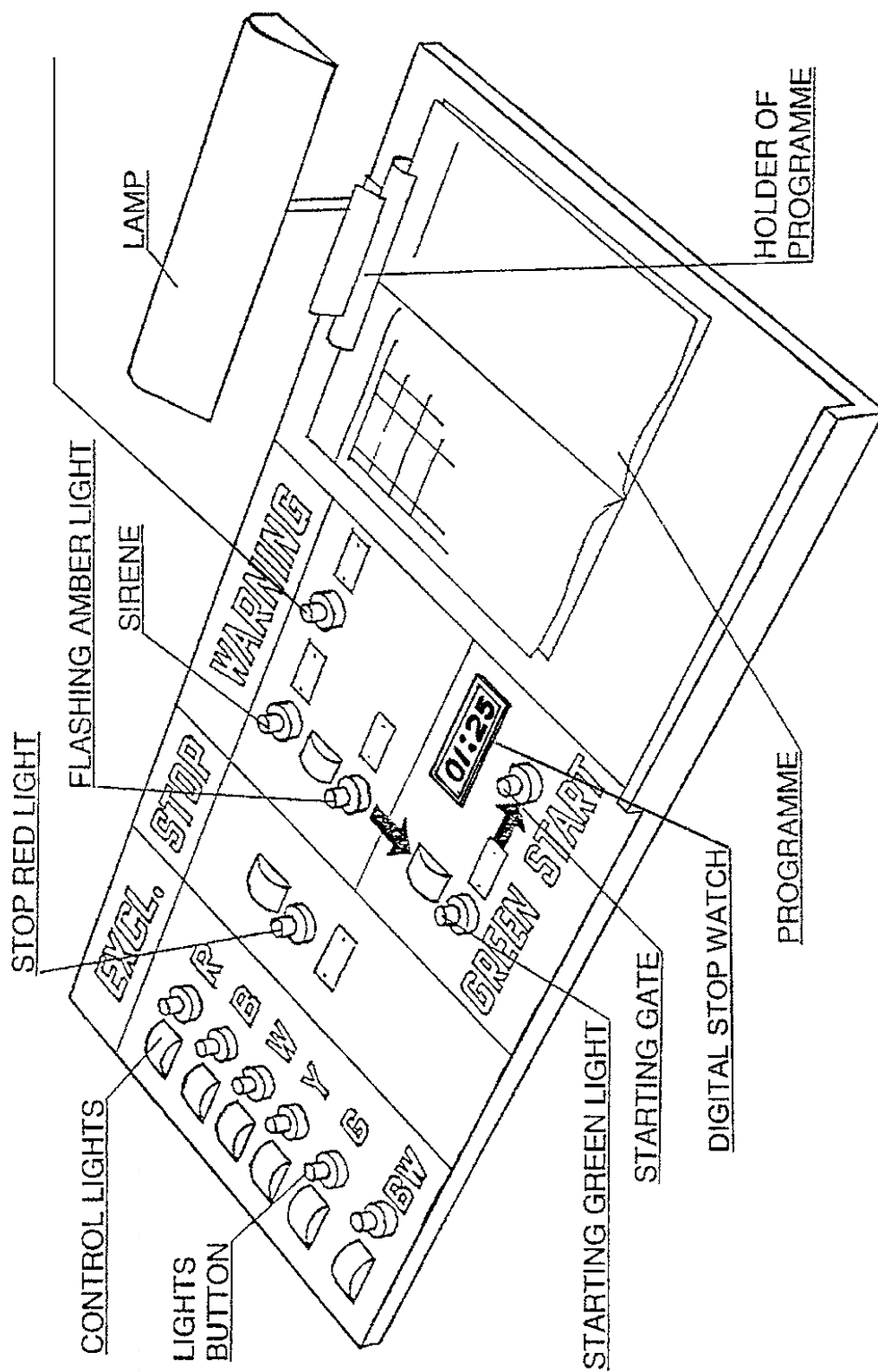
79.7.6

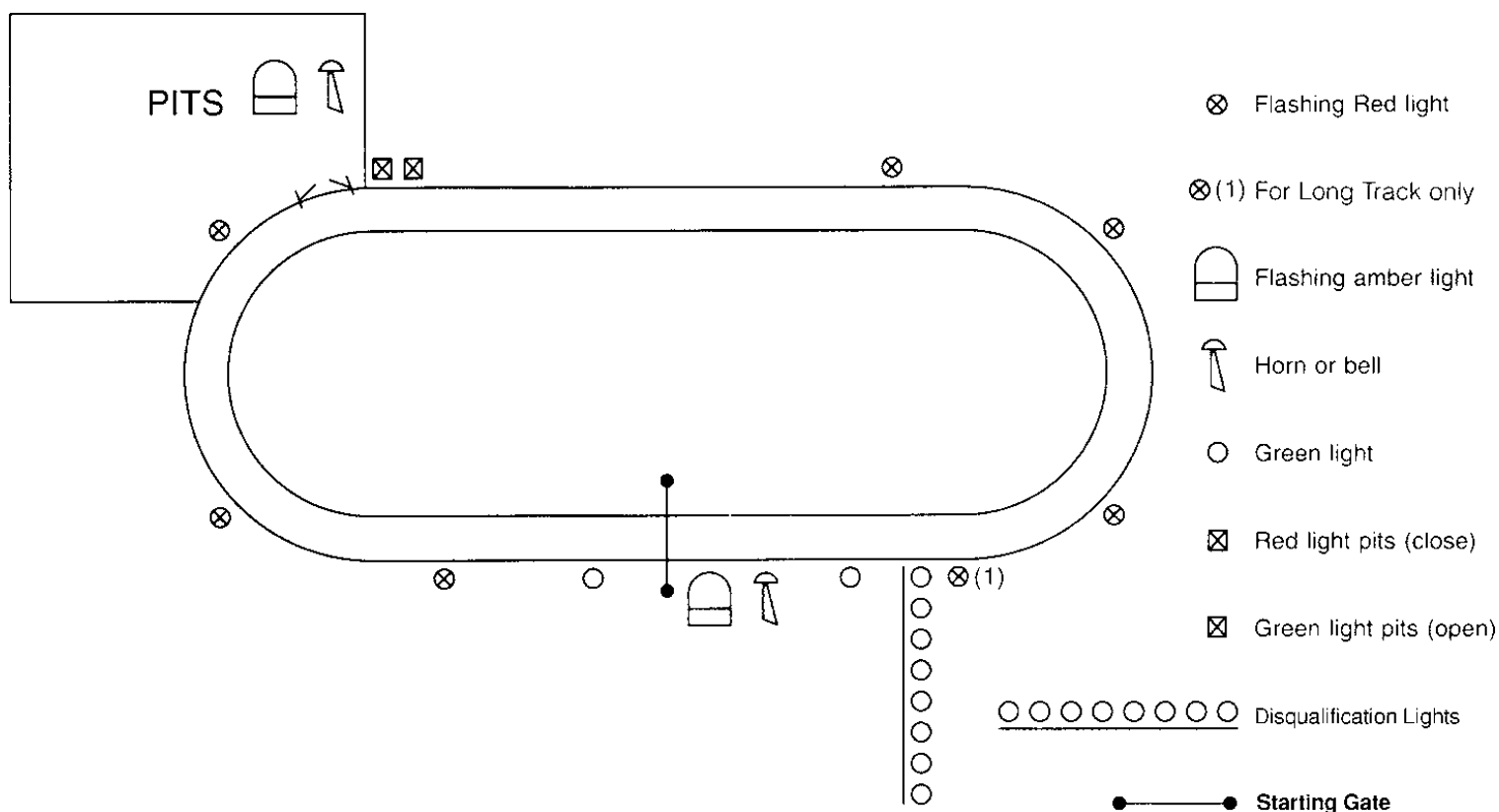


PREFERABLE: The accommodation for the Referee and the Timekeeper should be located on the starting side of the track, so that the Referee and the Timekeeper can align themselves with the starting line.

79.7.6

REFEREE'S CONTROL PANEL





The six red heat stop lights have to be independent from everything, so that they can be switched on and off independently.

Two green lights have to be switched on and off together. The starting gate can operate only when these two lights are on. When these lights are off the starting gate must not operate.

The lights have to go out 10 seconds after the start.

Two flashing amber lights have to work together, one in the pits and one in the neighbourhood of the starting gate. They have to go out when the green starting lights have been switched on.

Two horns or bells have to go on and off together, one in the pits and one in the neighbourhood of the starting gate.

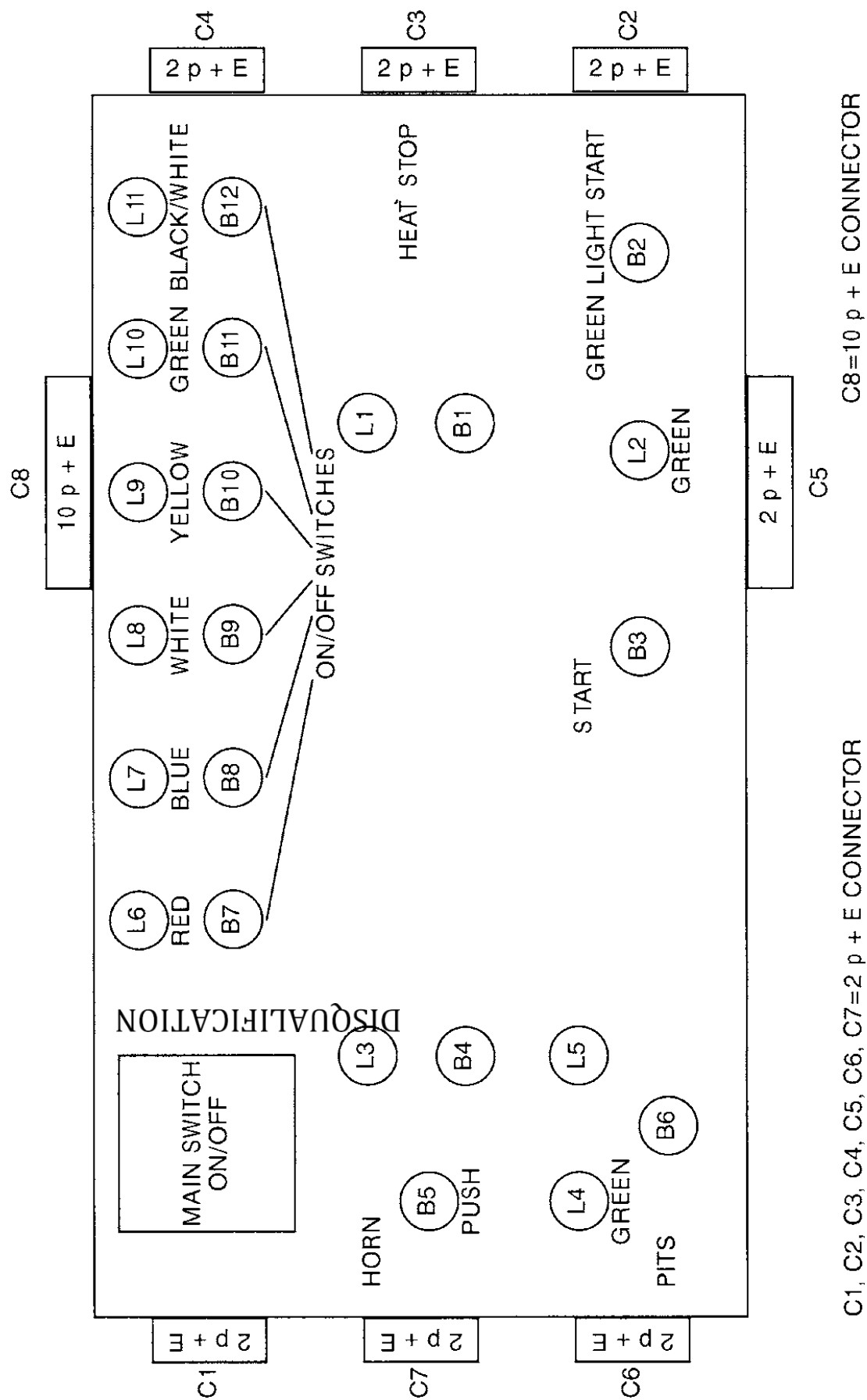
Disqualification lights have to go on and off independently from each other. The green and red lights in the pits have to go on and off independently from each other. Start: The heat can only be started when the green starting lights are on.

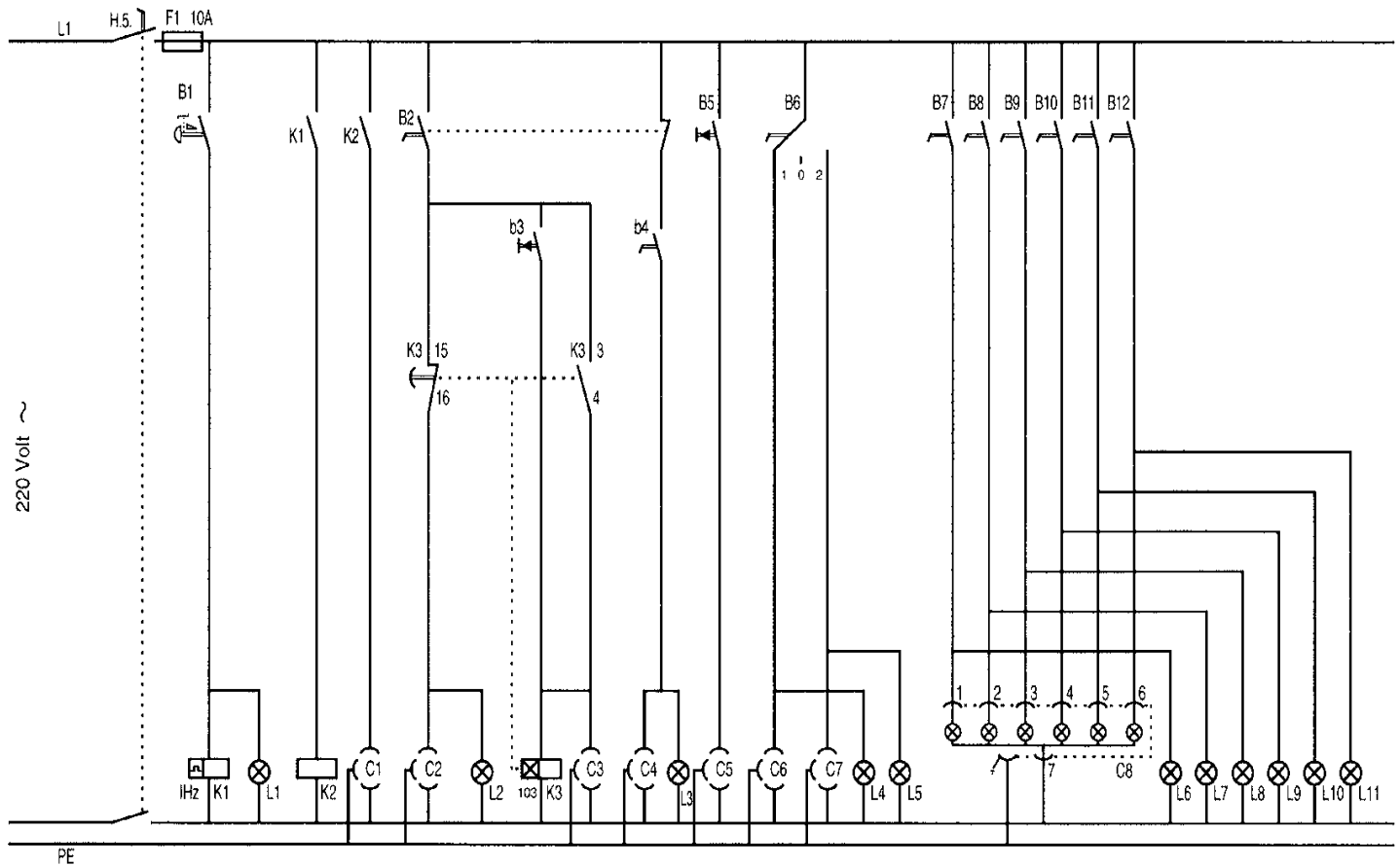
The stop watch should operate in conjunction with some of the switchboard buttons as follows:

Pressing the flashing amber light button: watch reset and start

Pressing the green light button: watch reset and start

Pressing the starting gate button: watch reset and start



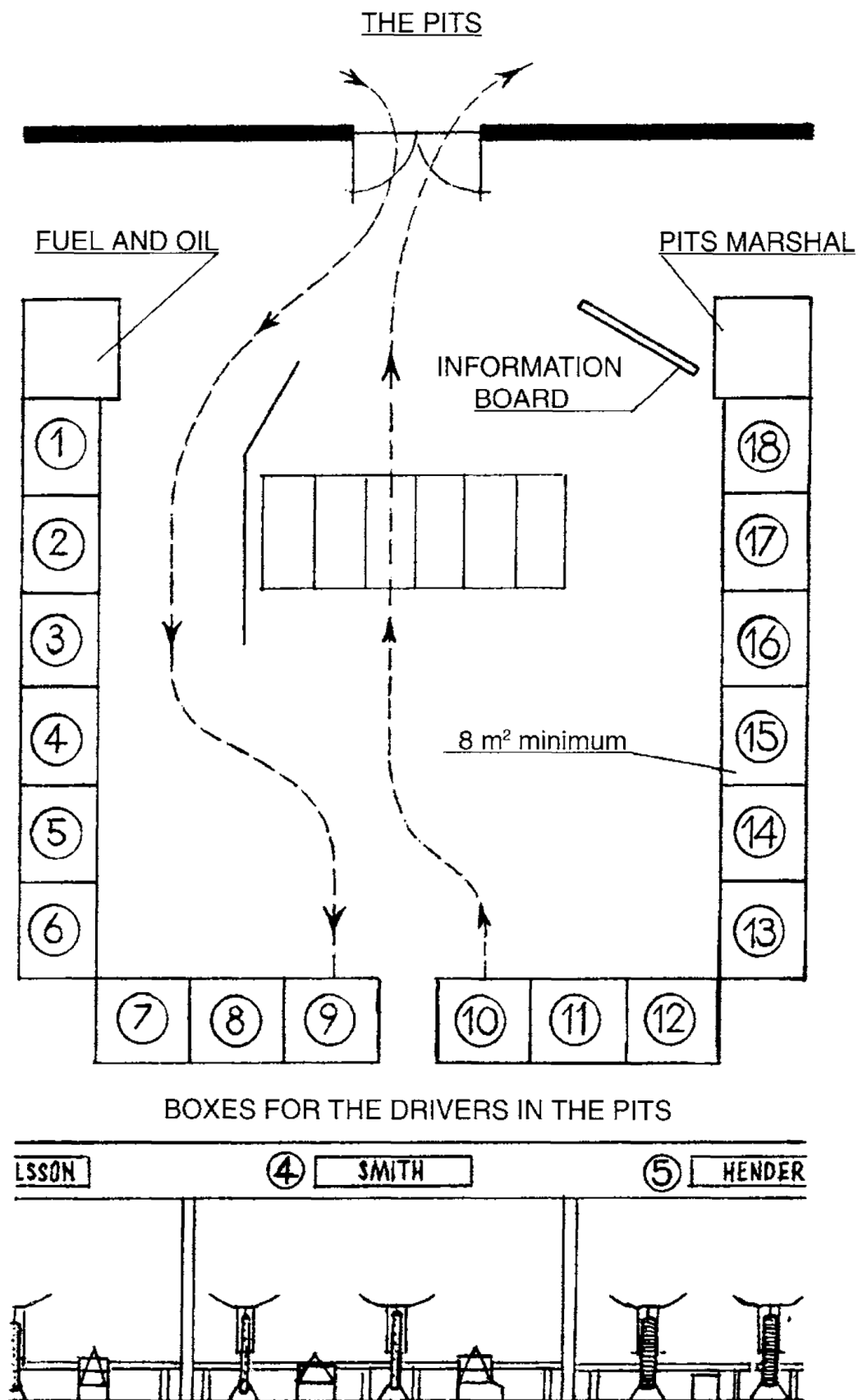


K1. Intermittent relay 0,55 sec. on 0,55 off
 K2. Relay 220 Volt 6 Amp.
 K3. Timing relay 1 directly and 1 deceleration relay 10 sec.
 C1. 2 pin female connector 6 lights heat stop red
 C2. 2 pin female connector 2 green lights start ready
 C3. 2 pin female connector starting machine
 C4. 2 pin female connector flashing amber lights
 C5. 2 pin female connector horn or bell

L1-L5-L6. Red control lights
 L9. Yellow control light
 L2-L4-L10 Green control lights
 L11. Black/White control light
 L3. Amber control light
 L7. Blue control light
 L8. White control light

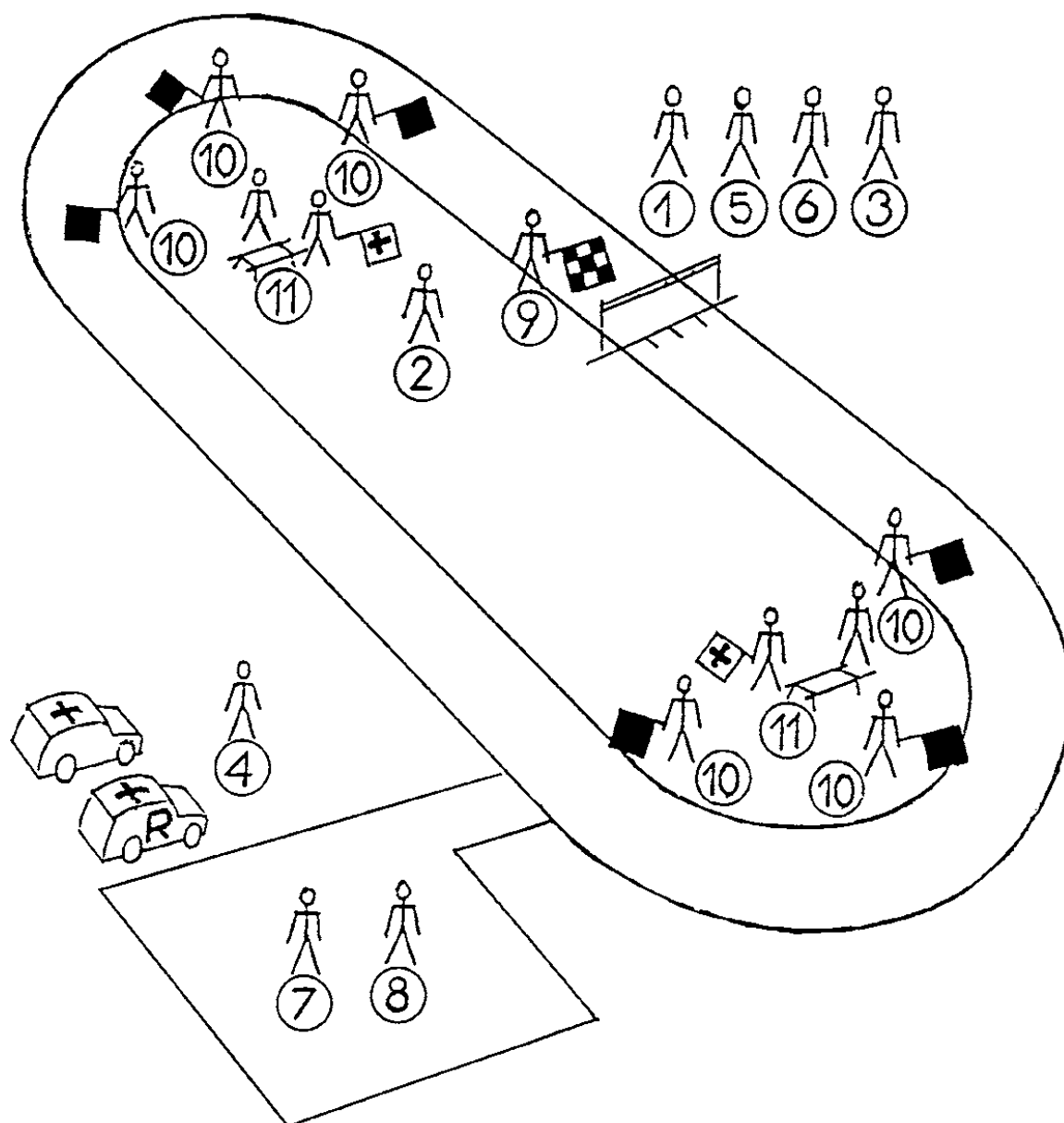
C6. 2 pin female connector green lights pits
 C7. 2 pin female connector red light pits
 C8. 10 pin female connector disqualification lights (6)
 B1. Safety push button
 B2.-B4-B7-B8-B9-B11-B12. Switch on/off
 B3- B5 Push button
 B6. Switch on-neutral-off F1. Fuse 10 Amp. 220 Volt

79.7.7



79.8

RACING OFFICIALS



- | | |
|----------------------------------|--|
| 1. REFEREE | 7. TECHNICAL STEWARD |
| 2. CLERK OF THE COURSE | 8. PITS' MARSHAL |
| 3. SECRETARY OF THE RACE MEETING | 9. STARTING MARSHALL |
| 4. DOCTOR | 10. FLAG MARSHALS |
| 5. TIMEKEEPER | (three on each bend) |
| 6. SPEAKER | 11. FIRST-AID MEDICAL STAFF (with a stretcher and a "Red- Cross" flag) |

79.9

