



**The Federation of Motor Sports Clubs of India**

# **2017 FMSCI GENERAL PRESCRIPTIONS & 4W TECHNICAL REGULATIONS**

## **DRAG RACING**

## DOCUMENTATION / INFORMATION

- Name and Status of the Event
- 2W / 4W or only 2W or only 4W
- Sporting Regulations and Classes being run
- Risk Analysis document duly filled in and signed by the Organizer and COC
- Safety & Medical Document duly filled in & signed both by the CMO & COC.
- Associate Hospital close by, Distance by Road and Hospital confirmation letter for acceptance of any injured participant if required for treatment.
- Track Layout Drawing, Barricading Drawing, Pits Location drawing, Assembly Area Drawing, Scrutiny Area Drawing, COC and Stewards Area drawing.
- List of permissions applied for and acknowledgement of application from the department.
- 3rd party event Insurance copy.
- List of Officials sheet
- Program Sheet
- Preferred date for track inspection by FMSCI delegate
- Event timings are 0900 to 1800 which have to be respected .(in daylight only)
- Details of Timing Equipment being used.

## TRACK INSPECTION

- CAD drawing & proper, accurate sketch to be submitted.
- track inspection can be done minimum 1 week before the event. 2 days prior to the event, an observer/inspector will be deputed to ensure conformance of arrangements at venue and suggest any corrections to the organiser. The same official will then serve as the second steward for the event.
- In the event it is a restricted area, the organisers will send a visual for inspection.
- Barricading inspection by Steward at least 1 Day before the event
- In case track inspection is not possible, then the CAD drawing & proper, accurate sketch must come to FMSCI and will be given to the stewards to ensure that the organiser has carried out all the requirements.
- 1<sup>st</sup> line permitted barricading – Bamboo / casuarinas/ metal pipes fabricated as barriers must have rounded edges and should not be riveted with any form of metal sheets and the metal barriers may or may not be interlocking. Advertising material made from either flex or sunboard may be glued or securely fastened onto these barriers, ARMCO, concrete blocks, water-filled plastic barrier (minimum 1 metre height), concrete wall, MOJO barriers (minimum 1 metre height)
- 2<sup>nd</sup> line barricading - same as permitted for 1<sup>st</sup> line barricading. In addition sheets are permitted provided they are facing the spectator side.
- Cones or haybales must be placed at the end of the braking distance.
- In case the event is run on track where there is an elevation of min 1 % , the event will be allowed to run provided the runoff is uphill.

### WIDTH OF THE TRACK

- As our current race tracks are 11 mts wide. It was decided that the minimum width should be 11 metres. For temporary drag strips the minimum width should be 12 meters.
- Centre line will have double cones (non metallic) upto 5 metres from Start Line.
- Outer edge to be defined by cones.

### EXPERIENCE OF OFFICIALS

- Officials such as the Clerk of the Course, Chief Medical Officer, Chief Safety Officer,, Competitor Relations Officer, Chief Marshall, Chief Starter, Chief Scrutineer & 1 assistant, Time Keeper to have had sufficient experience and to be approved by the FMSCI Secretariat.
- Technical Delegate from the FMSCI Pool to be appointed for every Drag event in addition to the appointed and approved Scrutineer (who also has to mandatorily be an FMSCI licenced scrutineer)
- List of CMOs available with Dr. Udaykumar Balakrishna.
- For an entry of 100 vehicles & more (2 or 4w) a minimum of 2 scrutineers & 3 assistants will be required to be provided for by the Organisers.

### NUMBER OF RUNS PERMITTED PER DAY

- Mandatory practice for each participant. If the participant has entered in more than 2 classes, then he/she will have to do a minimum of two practice sessions in the two fastest vehicles entered in. Organiser to schedule accordingly .
- If the competitor does not do practice he should report to the stewards (their discretion)
- The Maximum number of runs per day will be 175 Runs which includes practice.
- An additional 25 runs per day may be granted by the Stewards if they are satisfied that the program can be completed in daylight.
- The practice run will also be counted as part of the Maximum number of runs per day.
- Thus, if the Maximum runs post the Stewards approval is 200 runs per day, the Organizers need to calculate their cut off for the entries after taking into account that each entrant will also be given a compulsory practice run. If the entries are more than the maximum runs permitted, then either the event has to be for 3 days or the number of entries restricted to the maximum number of runs permitted over 2 days.

### MINIMUM SAFETY REQUIREMENTS FOR DRAG RACING ON A GRADE C DRAG STRIP

- Distance from edge of track to 1st barrier - 10 meters
- Gap between 1st barrier and 2nd barrier - 5 meters.
- Distance of barricading will be 50 meters from start line and then will be closed giving spectators no access to go beyond that.
- The Braking Distance for a 1/8th Mile Drag race should be 400 meters from the Finish Line.
- The Braking distance for a 1/4th Mile Drag Race should be 500 meters from the Finish Line.

- If there is a non movable obstacle at the end of the braking distance, then the braking distance should be increased by 100 meters for a 1/8th mile and by 200 meters for a 1/4th mile drag race.
- If Top Fuel and Twin Engine Bikes are used, then the braking distance for a 1/8th mile should be 500 meters and for a 1/4th mile be 600 meters and if there is a non movable obstacle at the end of the braking area, then the additional run off area for a 1/8th mile should be 200 meters for the 1/8th mile as well as the 1/4th mile.
- Width : as per FIA/UEM Specs but waiver can be granted based on FMSCI discretion
- fastened wooden barricading is the minimum criteria

#### FIRE EXTINGUISHERS – MINIMUM REQUIREMENTS

- 2 Nos 25 Kg on a pick up truck
- 4 Nos of 6 Kg extinguishers at the start
- 2x2, 6 kgs extinguishers every 100 meters.
- Water mist fire system is a must

#### SAFETY GEAR FOR DRIVERS / RIDERS TO BE SPECIFIED IN THE SRS

##### Safety Gear for 2 Wheelers

- Full riding gear for all classes such as overalls, racing helmet , gloves & boots as defined in the 2 W Racing Regulations.
- Helmet as per DOT or EC approvals. No Poly Carbonate Helmets are permitted. , Knee guards and Elbow guards are compulsory if the overalls do not have them in built.
- 2 piece overall is permitted if both the pieces can be fastened together by means of a zipping system.

##### Safety Requirements for 4 Wheelers

###### DRIVER COMPARTMENT

Both doors must be functional from inside and outside on all full-bodied cars. All interior panels (firewalls, floors, wheel tubs, doors, etc.) within the driver compartment of enclosed-cockpit cars where the driver is located behind the engine must be constructed of materials other than magnesium. Driver compartment of any enclosed or full-bodied car must be totally sealed from engine and transmission. All holes in firewall must be sealed with aluminium or steel. Openings around all linkages, lines, wires, hoses, etc. must be minimized.

## FIREWALLS

Each car in competition must be equipped with a minimum .032-inch (.8 mm) aluminum or .024-inch (.6 mm) steel firewall, extending from side to side of the body and from the top of the engine compartment's upper seal (hood, cowl, or deck) to the bottom of the floor and/or bellypan. Firewall must provide a bulkhead between the engine and/or fuel tank and driver compartment. In certain instances fiberglass, carbon fiber or other composites may be used. All holes in firewall must be sealed with aluminum or steel. Use of magnesium prohibited.

## ROLL CAGES :

- *Super Cars :*
- Super Cars running at 9 seconds and faster or at 240 kmph and above : Roll cage and parachutes is mandatory
- Super Cars running at 9.99 seconds and faster : Roll Cage is mandatory.
- Super Cars running at 10 seconds and slower : Roll cage not mandatory.
- Cars with roll cages – 4 point harness mandatory. *STOCK-BODY VEHICLES, ALTERED-BODY VEHICLES*
- Cars running at 9 seconds and faster or at 240 kmph and above : Roll cage and parachutes is mandatory
- Cars running at 11.99 seconds and faster : Roll Cage is mandatory.
- Cars running at 12 seconds and slower : Roll cage not mandatory.
- *Indian Homologated Open Wheel Single Seater Vehicles (without any modifications) :* Roll cages specified in the FMSCI Racing Regulations & Vehicle Homologation.
  - *Open Wheeled Single Seaters not approved by the FMSCI :*

Transverse front Engined and Front Engined rear wheel drive cars of unit built construction not allowed (i.e. non series-production cars)

Rear engined rear wheel drive dragsters allowed

Cars faster than 7.5 seconds not allowed

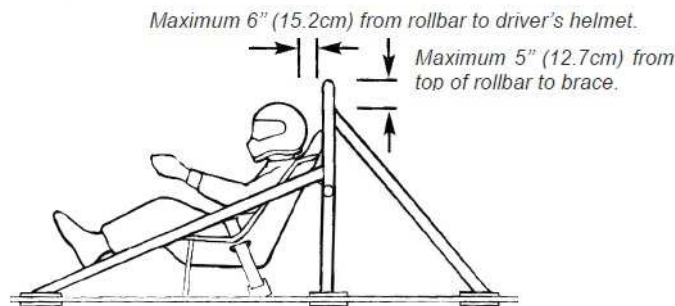
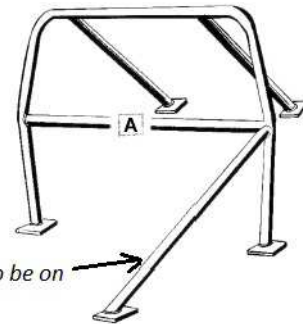
Roll cage specifications:

1. Series production saloon cars and convertibles – as below or as per FMSCI standards for Group N cars

All cars with an OEM frame must have rollbar attached to frame.

Cars without frame use 6" (152mm) square 1/8" (3.2mm) steel plates on top and bottom of floor, securely bolted together with at least four 3/8" (9.53mm) bolts, or top plate welded to rocker sill.

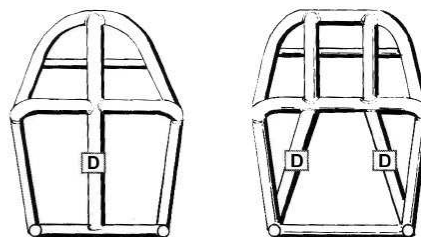
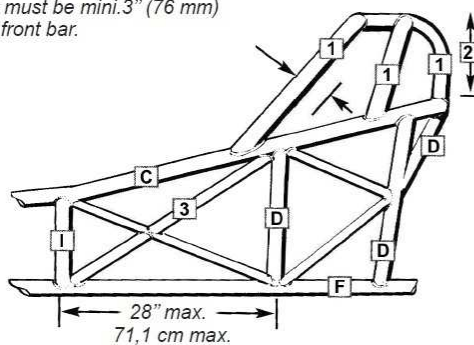
All materials must be 1.75" OD x .118" (44.5 x 3.02mm) mild steel or .083" (2.11mm) 4130 chrome moly tubing, except for **A** which is 1.25" OD x .118" (31.8 x 3.02mm) mild steel or .083" (2.11mm) 4130 chrome moly tubing.



2. Specials and Open wheel cars:

**ALTEREDS**  
7.50 seconds (\*4.50) E.T. and slower  
(tubing dim. according to table 1)

Helmet must be mini.3" (76 mm) behind front bar.



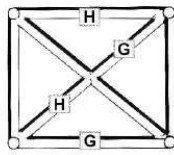
Rear views

- 1 5 point attachment, use tube code B. For 6 point attachment use tube code A1. If using 5 point attachment, C will become tubing code A1
- 2 If over 18" (45.7cm), dimension C becomes A1
- 3 If an X or K is used then G, otherwise E

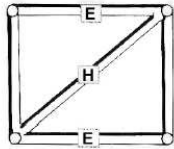
**REAR ENGINE DRAGSTERS**  
**7.50 seconds (\*4.50) E.T. and slower**

(tubing dim. according to table 1)

All dimensions apply to driver compartment only.

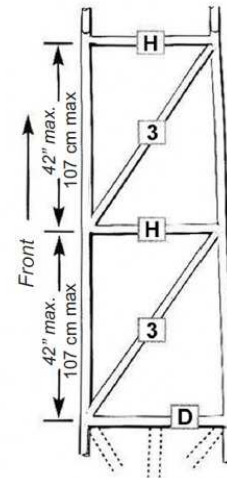
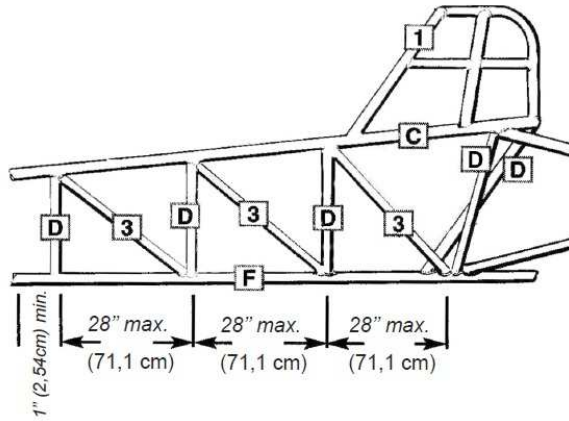


opt.#1



opt.#2

Front views



Bottom view

(\*4.5) refers to 1/8 mile (201 m)

FOR ANY OTHER CONFIGURATION PLEASE CONSULT WITH FMSCI

TABLE 1 - TUBING CODE / TABLEAU 1 - CODE DES TUBES

	Outside diameter Diamètre extérieur	Wall thick. (Chrome Moly) Épaisseur (Chrome Molybdène)	Wall thick. (Mild Steel) Épaisseur (Acier doux)
A - 1	1 <sup>1</sup> / <sub>2</sub> " (3.81cm)	.065" (1.65mm)	.118" (3.02mm)
B	1 <sup>5</sup> / <sub>8</sub> " (4.13cm)	.065" (1.65mm)	.118" (3.02mm)
C	1 <sup>3</sup> / <sub>8</sub> " (3.49cm)	.058" (1.47mm)	.118" (3.02mm)
D	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.058" (1.47mm)	.118" (3.02mm)
	1 <sup>1</sup> / <sub>8</sub> " (2.86cm)	.065" (1.65mm)	.118" (3.02mm)
E	3/4" (1.91cm)	.058" (1.47mm)	.118" (3.02mm)
	1" (2.54cm)	.049" (1.22mm)	.118" (3.02mm)
F	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.058" (1.47mm)	.118" (3.02mm)
	1 <sup>3</sup> / <sub>8</sub> " (3.49cm)	.049" (1.22mm)	.118" (3.02mm)
G	5/8" (1.59cm)	.058" (1.47mm)	.118" (3.02mm)
H	1" (2.54cm)	.058" (1.47mm)	.118" (3.02mm)
I	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.049" (1.22mm)	.118" (3.02mm)

- HELMETS :
- All cars running at 11.99 seconds and faster, drivers need to wear Helmets as per specifications defined in the FMSCI Racing Regulations.

- All cars running at 12 seconds and slower, drivers need to wear Helmets with either DOT or EC Approvals. Poly Carbonate Helmets are not permitted.

#### OVERALLS, GLOVES, SHOES, ETC

- All cars running at 11.99 seconds and faster, drivers will need to wear overalls, shoes and gloves as specified in the FMSCI Racing Regulations.
- All cars running at 12 seconds and slower, following needs to be adhered to : Full-length pants; short or long-sleeved shirt; closed shoes; and socks. No shorts. No tank tops. No open-toe or open heel shoes or sandals. Synthetic clothing not recommended.
- Competitors ID Tag must have name / photo / Blood Group

#### MEDICAL REQUIREMENTS

- Minimum requirement is 1 no Advanced Trauma Care ambulance & 1 normal ambulance.
- Confirmation from hospital and COC that the Doctor on duty has experience in Trauma / Emergency care.
- If there is no full-fledged medical center at the site, the nearest hospital should be a maximum of 30 minutes' drive away.
- Safety & Medical Questionnaire to be filled up & signed by both CMO / COC
- Ambulance – B1 mandatory & C1 recommended if hospital is far away

#### First Intervention Vehicle

#### DUTIES

- To reach the site of the accident in the least possible time
- Assess the accident and report back to race control
- Extrication or Fire fighting if required.
- Assess injuries and provide preliminary first aid.
- Facilitate evacuation of the injured to the ambulance. (Only to be done if Doctor decides that it is safe to transport the injured in the FIV. If the Doctor decides otherwise the Ambulance should be moved to the accident site for evacuation of the injured to a hospital)
- If evacuation to a hospital is required then the Doctor on board the FIV should accompany the injured in the Ambulance

#### CREW ON BOARD



- An experienced driver
- A Doctor skilled in resuscitation
- A helper to assist in Fire fighting and or extrication.

#### MANDATORY EQUIPMENT ON BOARD

- A Radio transmitter/receiver
- Two 4 Kg fire extinguishers (dry chemical powder type)
- Tow chain/ Thick Nylon rope (20 feet)
- One Crowbar
- One large Hammer
- One Metal cutting shears
- One Cutting pliers
- One Spanner for battery terminal
- Water
- Chisel

#### DRAG RACING CLASSES

The following classes are the approved classes which can be technically scrutineered by the FMSCI and protests on technical grounds can be investigated. Organisers are free to run any other classes on closed basis only ( a maximum of 4 classes each in 2 wheelers and 4 wheelers) . However, class names should not have the word "stock" embedded in the name.

No merging of classes even if there are less entries in the case of a Championship.

In the case of a Championship where points are awarded for each round, then full points will be given if there are 6 or more entries in each class and half points will be given if there are less than 6 entries in any class.

#### 4 wheelers:

##### Pro Stock Petrol

- upto 1150 cc
- 1151 – 1450 cc
- 1451 to 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc and above

Only one of Turbo charging / Super charging / Nitrous allowed, with a multiplication factor of 1.7 on the cubic capacity.

## Pro Stock Diesel

- upto 1150 cc
- 1151 – 1450 cc
- 1451 to 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc and above

For Pro-stock Diesel and Petrol, the shell should be a production shell with engine block, head and gearbox casing of production type. All internals are free. After market forced Induction / Nitrous allowed subject to only one of Turbo charging / Super charging / Nitrous allowed, with a multiplication factor of 1.5 on the cubic capacity for Diesel and 1.7 for Petrol.

### Unrestricted Class.

This class is open to all *Indian cars with Indian /Foreign engines, Foreign cars and Specials, single seater and non-production vehicles, including Dragsters.*

The drivers equipment will have to comply with the FMSCI Racing Safety Regulations.

### Indian Open

1. Indian Series Production cars with an engine and drive train from an Indian series production car (no Completely Built Unit power plant allowed). CBU Cars not allowed. Cars assembled in India is allowed.
2. Any body shell of an Indian Series Production car. The chassis or unitary construction must remain to the manufacturer's original specification including suspension mounting points and design (e.g. Monocoque should remain a Monocoque and a McPherson Strut should remain a McPherson strut).
3. The origin of the block, head and gearbox casing are to be from an Indian series production car. The internals for the engine & drive train are free. Gear shift pattern has to be the same as original.
4. Turbo charging and Super Charging is allowed but not in combination. Nitrous is allowed only for naturally aspirated engines.
5. Engine relocation permitted, provided the Technical Delegate / Scrutineer are satisfied with the safety of the vehicle particularly with regard to directional stability. Roll Cage to be the same as Group N Rally car. Firewall and Driver compartment as defined earlier in the General Prescriptions (pages 4 - 5). The engine should be from an Indian series production car.
6. Any cars with modifications beyond what is allowed above can only take part in the Unrestricted category.

## Safety Compliances as per FMSCI Racing Safety Regulations

In all the approved classes, Pre-event scrutiny will be for safety, and post event will for technical compliance. All vehicles entering in the above approved classes undertake to permit opening of their vehicles, engines, gearboxes and any other subsystem for post-event scrutiny.

Irrespective of whether the approved classes are run or not, the safety requirements as specified by the FMSCI from time to time shall be met without exception.

Please note that the intention is to shift to regulations modelled on FIA regulations for the year 2019. Hence competitors may keep this in mind while making new investments on their vehicles.

### 2 wheelers:

2 stroke:

- upto 130 cc
- 131 – 165 cc
- 350 cc and above

4 stroke:

Open classes, no restriction of number of cylinders:

- upto 165 cc
- 166 – 225 cc
- 226 – 360 cc
- 361 – 550 cc
- 551 – 850 cc
- 851 – 1050 cc
- 1051 cc and above
- Single / Twin 551 – 850 cc
- Unrestricted class

2 wheeler technical regulations as in 2 wheeler Drag Racing Technical Regulations.

### PERMISSIONS FROM LOCAL AUTHORITIES

- Police permission is mandatory for public roads. Owners permission is mandatory for private property. Intimation of event is mandatory with acknowledgement in all cases.
- Confirmation / consent letter from nearest hospital that they are aware of the event and willing to provide the medical services.
- Any other permission/s

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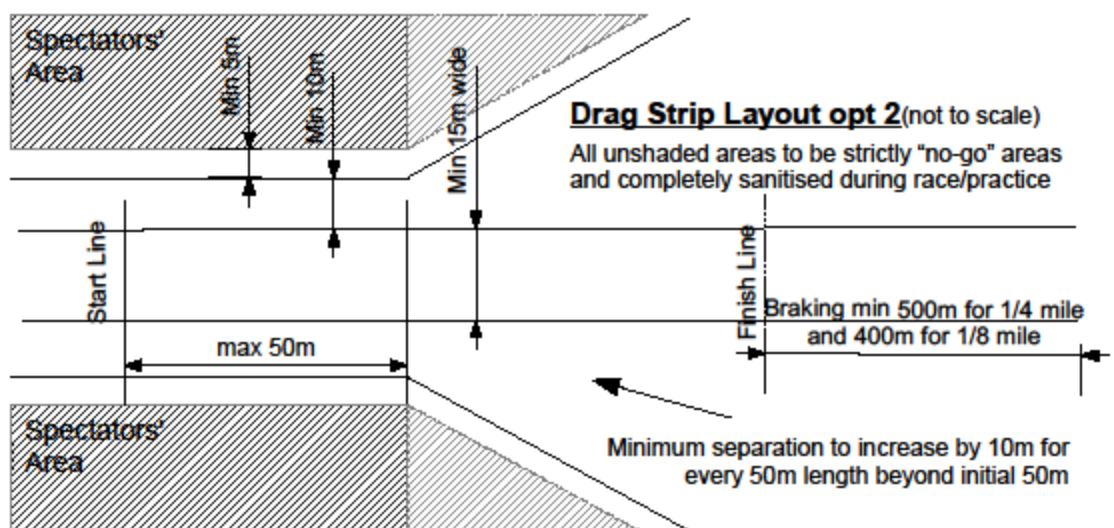
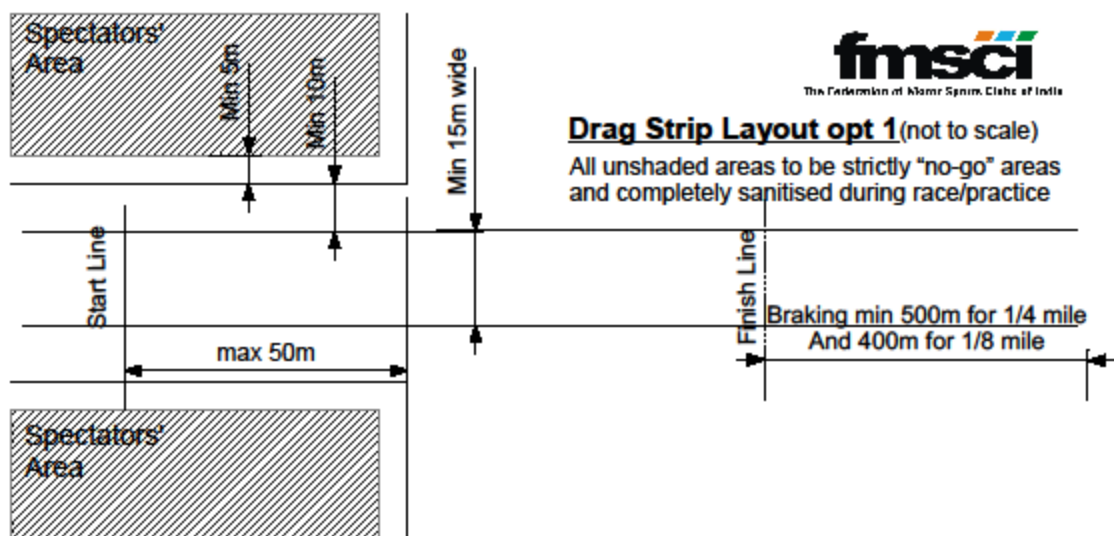
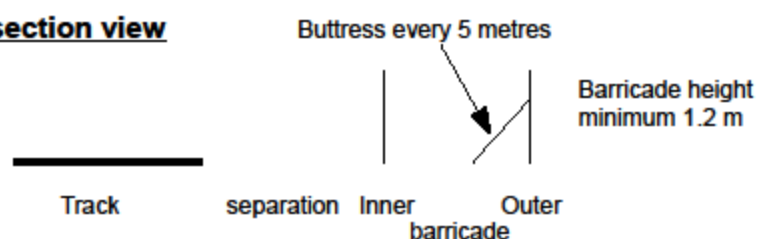


Illustration of separation: For a total spectator area length of 100m from starting line, the minimum separation between track edge and inner barricade will be  $10\text{ m} + 10\text{ m} = 20\text{ m}$

**Cross - section view**



- Notes: (i) Double barricading recommended, not mandatory for spectator area beyond run off area;  
(ii) barricades not required in case of masonry wall.  
(iii) In case braking area ends in an unmovable object, an additional 200m braking length required for 1/4 mile and 100m for 1/8 mile.