

2021 UNITED STATES GRAND PRIX

21 - 24 October 2021

From	The FIA Formula One Race Director	Document	40
To	All Teams, All Officials	Date	24 October 2021
		Time	11:40

Title Race Directors' Event Notes Version 4

Description Event Notes Version 4

Enclosed 2021 United States F1 Grand Prix Event Notes V4 Doc 40.pdf

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The FIA Formula One Race Director

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EVENT NOTES VERSION 4 **General Instructions**

1) Pit lane map

- 1.1 Safety Car lines.
- 1.2 The location of the pit entry and the pit exit.
- 1.3 Designated garage areas.
- 1.4 Safety Car position for first lap and rest of race.
- 1.5 Blue flag marshal at the pit exit.
- 1.6 Track light panels displaying pit entry status.

2) Pirelli Event Preview

- 2.1 With reference to Article 24.4(a) of the Sporting Regulations see the attached document provided by the official tyre supplier.

3) Red zones for photographers in the pit lane during practice sessions

- 3.1 See the attached drawing.

4) Track light panels

- 4.1 The FIA track light panels have been installed in the positions shown on the circuit map. In accordance with Appendix H to the ISC the light signals have the same meaning as flag signals.

5) Track light panel displaying pit entry status

- 5.1 The light panel indicated on the pit lane map will display a flashing yellow arrow if cars are required to use the pit lane once the Safety Car has been deployed during the race.
- 5.2 The light panel indicated on the pit lane map will display a flashing red cross if the pit lane is closed at any point during the race.

6) Drivers leaving their pit stop position in the pit lane

- 6.1 For safety reasons, no car should be driven from its pit stop position at any time unless:
 - a) It has first been driven into the pit stop position having just entered the pit lane from the track, and;
 - b) It is then driven immediately back onto the track from the pit stop position.

7) Observing yellow flags during free practice and qualifying

- 7.1 Double waved: Any driver passing through a double waved yellow marshalling sector must reduce speed significantly and be prepared to change direction or stop. In order for the stewards to be satisfied that any such driver has complied with these requirements it must be clear that he has not attempted to set a meaningful lap time, for practical purposes any driver in a double yellow sector will have that lap time deleted.
- 7.2 Single waved: Drivers should reduce their speed and be prepared to change direction. It must be clear that a driver has reduced speed and, in order for this to be clear, a driver would be expected to have braked earlier and/or discernibly reduced speed in the relevant marshalling sector.
- Drivers should not overtake any car in a single waved yellow marshalling sector unless it is clear that a car is slowing with a completely obvious problem, e.g. obvious accident damage or a deflated tyre.

8) In laps during qualifying and reconnaissance laps

- 8.1 In order to ensure that cars are not driven unnecessarily slowly on in laps during and after the end of qualifying or during reconnaissance laps when the pit exit is opened for the race, drivers must stay below the maximum time set by the FIA between the Safety Car lines shown on the pit lane map.
- You will be informed of the maximum time after the first day of practice.

9) Parc Fermé Cameras

- 9.1 To assist with the revised FIA Event procedures, the Parc Fermé cameras must be uncovered and operational at all times during the Event.

10) Operational personnel curfew

- 10.1 Boards warning anyone attempting to enter the paddock that the curfew is in operation will be placed immediately before the turnstiles at the appropriate times.
- 10.2 At this Event, Personnel will be permitted to enter the Paddock 30 minutes prior to the curfew to assist social distancing. No work is permitted to be undertaken until the curfew has ended.

11) Tyre Blanket Usage during Pit Stops in the Race

- 11.1 For reasons of safety, tyre blankets are not permitted in the Pit Lane at any time during the race.

12) Lapping during the race

- 12.1 The ISC requires drivers who are caught by another car about to lap him to allow the faster driver past at the first available opportunity. The F1 Marshalling System has been developed in order to ensure that the point at which a driver is shown blue flags is consistent, rather than trusting the ability of marshals to identify situations that require blue flags.

As it was at the end of last season the system will be set to give a pre-warning when the faster car is within 3.0s of the car about to be lapped, this should be used by the team of the slower car to warn their driver he is soon going to be lapped and that allowing the faster car through should be considered a priority. When the faster car is within 1.2s of the car about to be lapped blue flags will be shown to the slower car (in addition to blue light panels, blue cockpit lights and a message on the timing monitors) and the driver must allow the following driver to overtake at the first available opportunity.

It should be noted that the aim of using F1MS is to ensure consistent application of the rules, additional instructions may also be given by race control when necessary.

Event Specific Instructions

13) Formula 1 Sporting Regulations Article 21.6

13.1 In accordance with the provisions of Article 21.6a)ii), this Event is an Open Event.

14) Changes to the circuit

14.1 The circuit has been resurfaced in the following locations following the 2019 event:

- a) The end of the pit straight, including the pit lane exit road from the end of the pit signaling wall through to the exit of Turn 1;
- b) The exit of turn 9 through to the exit of Turn 10
- c) The exit of Turn 11 through to the exit of Turn 12
- d) Turn 15.5 through to Turn 19.5

14.2 **The orange bumps behind the Turn 1 exit kerb have been removed.**

14.3 The following milling of the track surface will take place in the following location prior to the event:

- a) Depression in the track between Turn 2 and Turn 3
- b) Depressions in the track in the vicinity of Turn 4, Turn 6, Turn 10 and Turn 14.

15) Specific Technical Procedures

15.1 The provisions of Technical Directive Ref: TD012 Issue A and TD003 Issue F must be complied with at all times during the Event.

15.2 Any tyres that are removed from a car and could be re-used during a session should be presented for scanning before being rewrapped and reheated. If time constraints do not permit this then all tyres used during a session must be presented to the tyre checker at the front of the garage at the end of any session. This applies to dry, wet and intermediate tyres.

15.3 Both TD012 Issue: A and TD003 Issue F will be amended after the Event to reflect any additional operational requirements as required.

16) Weighing and weighing platform

16.1 The FIA weighing platform will be available for teams to use at the following times, however, no more than 8 team personnel may be present during any visit. Each visit should last no more than 10 minutes unless no other team is waiting in the pit lane:

- a) From 11:30 on Thursday until 10:30 on Friday.
- b) From 12:30 on Friday until 15:30 on Saturday (between 14:00 and 15:30 on Saturday each visit will be restricted to five (5) minutes).
- c) From when the cars are returned to the teams after qualifying until 20:30 on Saturday.
- d) From 09:00 until 10:00 and 12:00 until 13:20 on Sunday.

Any team found to be abusing the time limits set out above, which will be enforced by FIA security personnel and our own CCTV, will not be permitted to use the weighbridge again during the Event.

16.2 Whilst waiting in the pit lane, the use of tyre blankets is not permitted

17) Support Races

17.1 Team Barrier placement

- a) Team barrier placement prior to and during all support category practice sessions and races: On the white line on the second break in the concrete apron. Approximately ten (10) metres from the garages.
- b) It is not permitted to push cars to the weighing area at any time a support category is in pit lane.

17.2 Support Category Movements

- a) Support Crews and Trolleys will be released into Pit Lane no earlier than 20 minutes prior to the opening of Pit Exit for their respective sessions.
- b) Support Category competition vehicles will be released from the marshalling area no earlier than 15 minutes prior to the opening of Pit Exit for their respective sessions.

18) Practice starts

- 18.1 Practice starts may only be carried out on the asphalt on the left-hand side of the fast lane at the pit exit and, for the avoidance of doubt, this includes any time the pit exit is open for the race.
- 18.2 Drivers should take no more than five seconds to prepare for their car for a practice start if any cars are waiting behind them.
- 18.3 For reasons of safety and sporting equity, cars may not stop in the fast lane at any time the pit exit is open without a justifiable reason (a practice start is not considered a justifiable reason).
- 18.4 For reasons of safety and sporting equity, at any time the pit exit is open and when practice starts are permitted to be carried out, any car who wishes to perform a practice start must form up in a line and leave in the order they got there unless another car is unduly delayed.

19) Lines or bollards at the Pit Entry and Pit Exit

- 19.1 In accordance with Chapter 4 (Section 5) of Appendix L to the ISC drivers must keep to the left of the solid white line at the pit exit when leaving the pits.
- 19.2 For safety reasons, drivers must keep to the left of bollard at the pit entry when they are entering the pits.
- 19.3 There is a small warning light panel on the left-hand side at the pit entry which will be operated if a car is stopped or going slowly around the corner of the pit entry.
- 19.4 Except in the cases of force majeure (accepted as such by the Stewards), the crossing by any part of the car, in any direction, of the painted area between the pit entry and the track, by a driver who, in the opinion of the Stewards, had committed to entering the pit lane is prohibited.
- 19.5 The dotted white line across the pit entry is the track edge line.

20) DRS

- 20.1 DRS Detection will be automatically disabled in each individual zone if any of the light panels in that particular zone are displaying yellow. The zone and corresponding light panels are as follows:
 - a) Zone 1: Panels 11, 12, 13, 14
 - b) Zone 2: Panels 20, 1, 2 and 3

21) Track Limits

21.1 Turn 1 Exit

- a) A lap time achieved during any practice session or the race by leaving the track on the exit of Turn 1, will result in that lap time being invalidated by the stewards.

21.2 Turn 6 Apex

- a) The track limits at the apex of Turn 6 are defined as when no part of the car remains in contact with the red and white kerb.

21.3 Turn 9 Exit

- a) A lap time achieved during any practice session or the race by leaving the track on the exit of Turn 9, will result in that lap time being invalidated by the stewards.

21.4 Turn 19 Exit

- a) A lap time achieved during any practice session or the race by leaving the track on the exit of Turn 19, will result in that lap time being invalidated by the stewards.

21.5 General – Turn 1 Exit, Turn 9 Exit and Turn 19 Exit

- a) A driver will be judged to have left the track if no part of the car remains in contact with the track.
- b) Each time any car fails to negotiate Turn 1 Exit, or Turn 9 Exit, or Turn 19 Exit by using the track, teams will be informed via the official messaging system.
- c) On the third occasion of a driver failing to negotiate Turn 1 Exit and/or Turn 9 Exit and/or Turn 19 Exit by using the track during the race, he will be shown a black and white flag, any further cutting will then be reported to the stewards. For the avoidance of doubt this means a total of three occasions combined not three at each corner.
- d) In all cases detailed above, the driver must only re-join the track when it is safe to do so and without gaining a lasting advantage.
- e) The above requirements will not automatically apply to any driver who is judged to have been forced off the track, each such case will be judged individually.

21.6 Article 27.3

- a) Other than in the case detailed in 21.1 above, drivers are reminded of the provisions of Article 27.3 of the Sporting Regulations.

22) Fire extinguishers around the circuit

- 22.1 Indicated by white boards with a red letter “F” attached to the debris fences and barriers.

23) Places to remove cars from the track

- 23.1 Indicated by fluorescent orange panels on the barriers.
- 23.2 Should a car stop on the track during a session, the driver must keep all of their protective clothing (Helmet, Gloves, etc) on until they have returned to their garage.

24) Access to the grid prior to the Start Procedure

- 24.1 To assist social distancing in accessing the grid prior to the commencement of the start procedure, Team personnel and equipment will be granted access to the grid from 1300hrs on Sunday 24th October.

25) Removing cars from the grid

- 25.1 Through the gates in the pit wall, the first located adjacent to grid position 2 and the second adjacent to grid position 14.

26) Car number light panels for the start

- 26.1 On the left-hand side of the grid.

27) Post-race parc fermé

- 27.1 All cars must enter the pit lane and, with the exception of the first three (3), should be driven directly to the weighing area at the pit entry.
- 27.2 The first three (3) cars must follow the post-race procedure which will be distributed prior to the start of the race.

28) Any other business

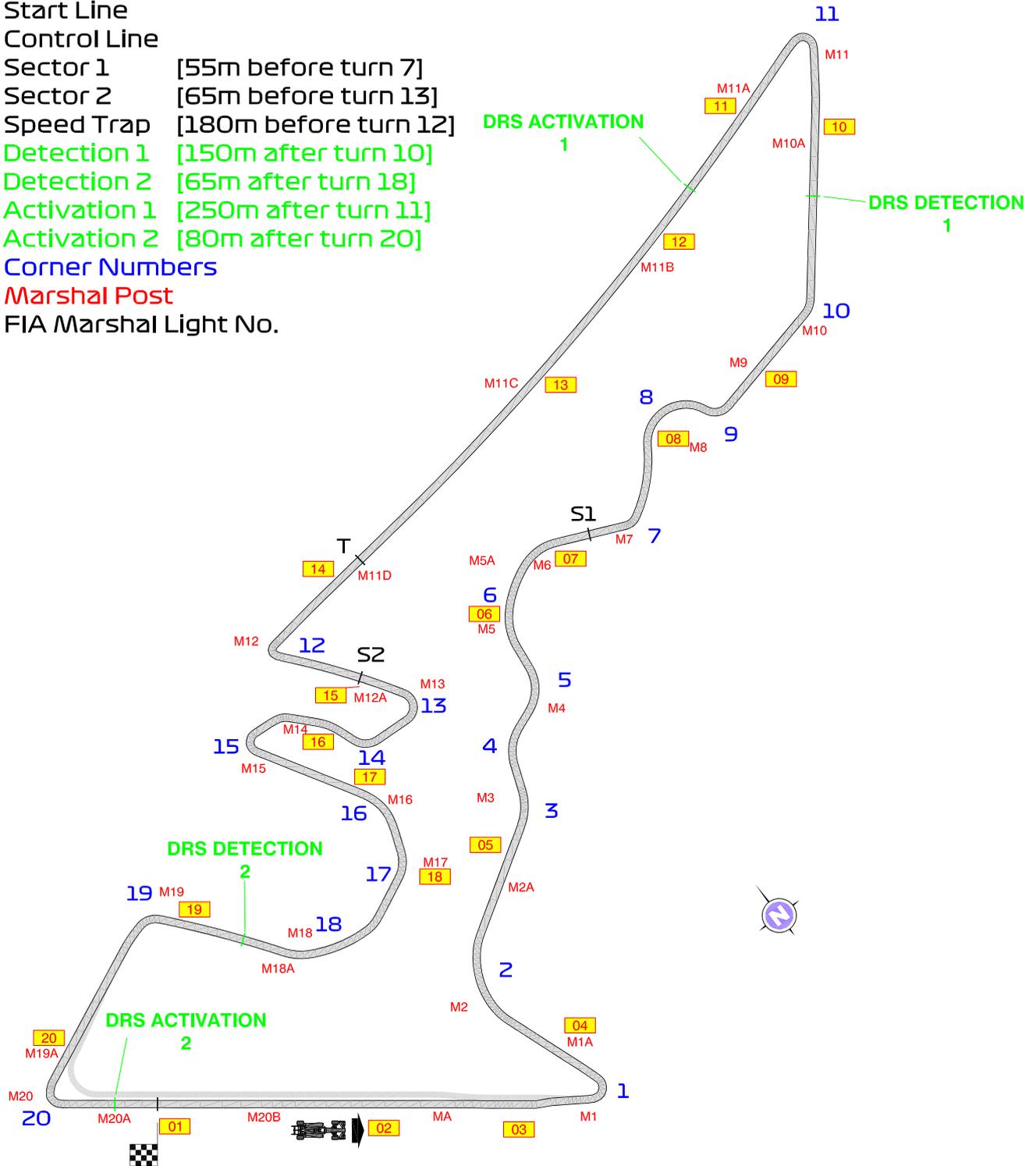
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FIA Formula One Race Director

FORMULA 1 ARAMCO UNITED STATES GRAND PRIX 2021 - Austin

Circuit Map

-  Start Line
-  Control Line
- S1 Sector 1 [55m before turn 7]
- S2 Sector 2 [65m before turn 13]
- T Speed Trap [180m before turn 12]
- DRS Detection 1 [150m after turn 10]
- DRS Detection 2 [65m after turn 18]
- DRS Activation 1 [250m after turn 11]
- DRS Activation 2 [80m after turn 20]
- 15 Corner Numbers
- M22 Marshal Post
-  FIA Marshal Light No.

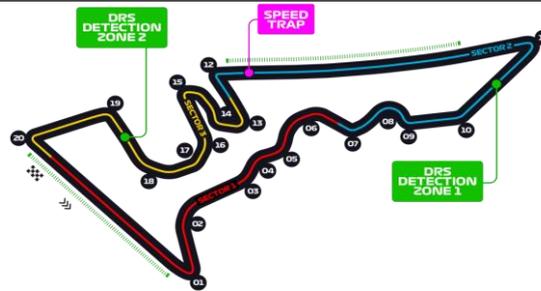


Circuit Centreline Length = 5.513km

In agreement with the FIA and in accordance with Article 24.4 a) of the F1 Sporting Regulations, this document contains the prescriptions for the operation of tyres during the following event.

Document version: 1.1 issue: A

Grand Prix of United States 22/10-24/10/2021 (21R17TEX)



Compounds selection

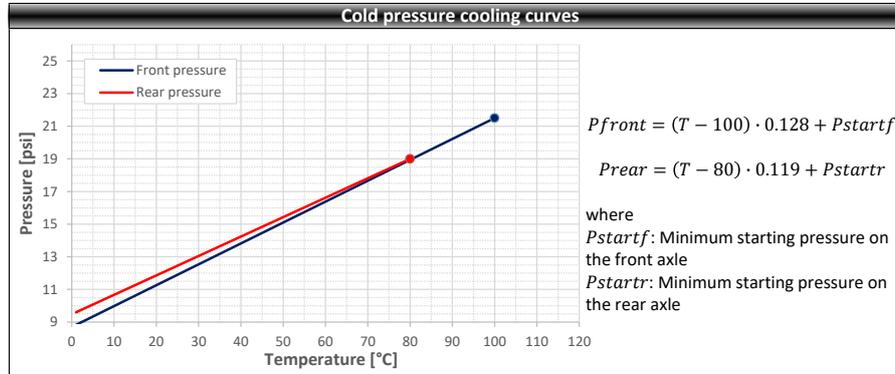
Compound	FL	FR	RL	RR	Mandatory race tyres
C2	2W1	2W2	6W3	6W4	C2
C3	3Y1	3Y2	7Y3	7Y4	C3
C4	4R1	4R2	8R7	8R8	C4
Intermediate	33X	35X	37X	39X	Q3 tyre
Wet	34Y	36Y	37Y	39Y	C4

Prescriptions

Pressures, camber & blistering sensitivity

	Minimum Starting P			Expected stabilized running pressure	Camber limit	Blistering sensitivity
	Slicks	Inter	Wet			
Front	21.5 psi	22.0 psi	21.0 psi	≥22.5 psi	-3.50 °	Low
Rear	19.0 psi	20.0 psi	19.0 psi	≥20.0 psi	-2.00 °	Medium

Cold pressure cooling curves



Maximum heating times and temperatures (tread & sidewall)

Temperature	0	60	80	100 (°C)
Slicks (front axle)	max. 3h			
Slicks (rear axle)	max. 3h			
Intermediate	max. 2h		max. 30'	
Wet	max. 2h			

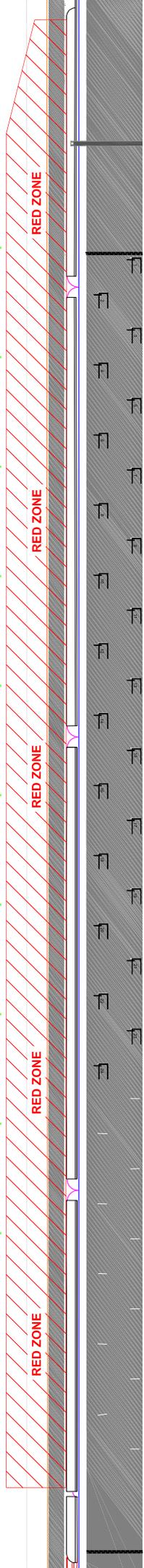
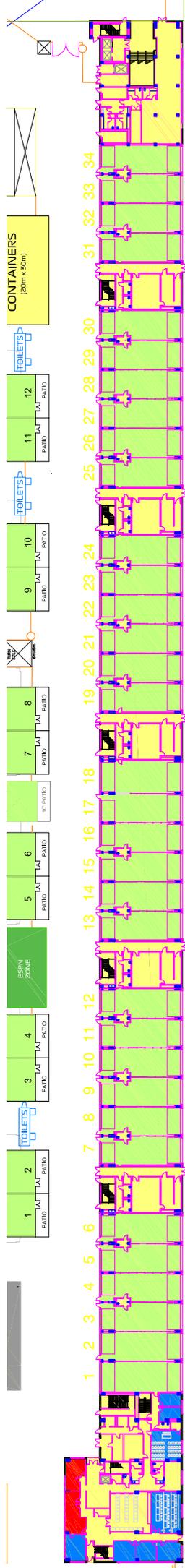
- Temperatures refer to tyre tread and side wall temperatures, not blanket or controller set-point temperatures.
- Tyres may only be heated prior to the session in which they are intended to be used.
- The temperatures apply at all times during the event.

Tyres notes

- Not permitted to switch tyres from their originally allocated position.
- Do not subject tyres to large deformation or heavy impact.
- Do not leave fitted tyres exposed at an air temperature lower than 15°C and/or any UV emission.
- Revised prescriptions could be issued during the race weekend in accordance with TD003.
- Heating time temperature limits apply to the actual tyre surface temperature measured with the IR gun as detailed in the TD003
- Cold cooling curve temperature limits apply to the tyre side wall temperature measured with the probe as detailed in TD003
- **BLANKET HEATING TIME** for each temperature range to be counted from the moment the blanket control unit is set to reach its targeted temperature within its correspondent interval.

General notes

- Teams are kindly reminded that the following will be subject to FIA checks during the event:
- Starting pressures
 - Cold pressures (according to the cold pressure cooling curves)
 - Re-heat pressures
 - EOS Camber
 - Maximum tyre temperatures in blankets
 - Tyre swapping



PHOTOGRAPHERS EXCLUSION RED ZONE

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