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ADDENDUM: Operational Design Domain - Driverless Testing in California

Updated August 2023

Cruise plans to have a broad operational design domain that serves consumers throughout California at all times of day and night. Our first step on that path is an initial ODD within the City and County of San Francisco. Cruise will work closely with the California Department of Motor Vehicles as such domain constraints are updated. Within that geofence, certain conditions and other constraints further described below are also outside of the initial intended ODD.

The Cruise vehicles that operate under the driverless permit are designed not to operate outside of their approved operational design domain. For example, Cruise's software will prevent the AV from routing to locations or on streets that are outside of the vehicle's operational design domain, which has been mapped in detail.

An ODD is the specific operating domain(s) in which an automated function or system is designed to properly operate, including but not limited to geographic area, roadway type, speed range, environmental conditions (weather, daytime/nighttime, etc.), and other domain constraints.[1]

Level of Automation	Cruise AVs under this driverless testing permit meet the description of a Level 4 automated driving system under SAE International's *Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles*, standard J3016 (APR2021). Cruise's self-driving system is designed to perform the entire dynamic driving task within a defined operational design domain and has the capability to achieve a minimal risk condition without any expectation that a human driver will intervene.
Geographic Area	During driverless testing of the Cruise AVs, Cruise's initial intended operational design domain will include a geo-fenced area within the City and County of San Francisco. Cruise will communicate with the DMV as it updates the geographic areas in which it will deploy within the City and County of San Francisco, and ultimately beyond.
Roadway Type	During driverless testing of the Cruise AVs, Cruise's intended operational design domain will include local and arterial roads and will exclude steep hills, bridges, tunnels, overpasses, underpasses, and roundabouts.

[1] *See* 13 CCR § 227.02(j).

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Speed Range	During driverless testing, Cruise AVs will operate at a maximum speed of 30 miles per hour.
Weather Conditions	During driverless testing, the intended operational design domain of Cruise AVs will exclude the following weather conditions: - Heavy Fog - Heavy Rain - Heavy Smoke - Hail - Sleet - Snow
Time of Day	During driverless testing, the initial intended operational design domain of Cruise AVs will include all times of day and night.
Other Domain Constraints	When engaging in driverless testing of the Cruise AVs, Cruise may opt to further restrict certain domain constraints, such as limiting driverless deployment to: - Non-inclement weather conditions - Certain times of day - Certain routes

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Driverless Testing Adopted ODD Map

(As per CA DMV Permits)

San Francisco ODD shown in Cruise Cartographer tool