

Swept Path Analysis (Reverse-in): Basis, Assumptions and Open Points

Basis of the model

- Geometry from the DXF (2610-BiBO-XX-00-DR-A-7061-02 Proposed Site Plan): kerb faces, dropped kerb, boundary walls, bays and red line. Carriageway 6.15 m; footway 1.85 m; dropped kerb 0.0 to 16.4 m along the frontage.
- Traffic drives on the left. A car arriving northbound is in the nearside lane; a car arriving southbound is in the far lane and has to cross the northbound lane.
- Design vehicle: 4.80 m long, 1.85 m wide excluding mirrors, 2.80 m wheelbase, 33 degree maximum steer, kinematic (bicycle) model. Rear axle path radius 4.3 m minimum.
- Reverse-in: the car stops in its lane beyond the bay, reverses along an arc, straight, arc path and finishes nose-out in the bay. Forward exit is the car driving out and joining the nearside or far lane.
- Paths were searched over arc radius, stop position, lane position and lead-in; the path with the greatest clearance is shown. All other bays are assumed occupied, except bay 9a-2 when 9a-1 is used (the tandem front bay has to be empty).
- Wheels cross the footway only where the kerb is dropped and stay inside the opposite kerb. Body may overhang the footway.

Findings

- All four bays can be reversed into and left in forward gear, from either direction of approach, with the geometry as drawn. Tightest reverse-in clearance: 0.46 m. Tightest exit clearance: 0.46 m.
- Reversing in is easier than driving in forwards for the 9a bays (compare the earlier forward-in sheets, where the tightest clearance was 0.22 m).

Project	New Dwelling
Client	Mrs S Large
Location	Land to Rear of 9 Westfield Road
Title	Swept Path: Reverse-in Notes
Date	13th October 2026
Issue	Planning
Scale	n/a @ A3
Drg No.	2610-SWP-PL04-01