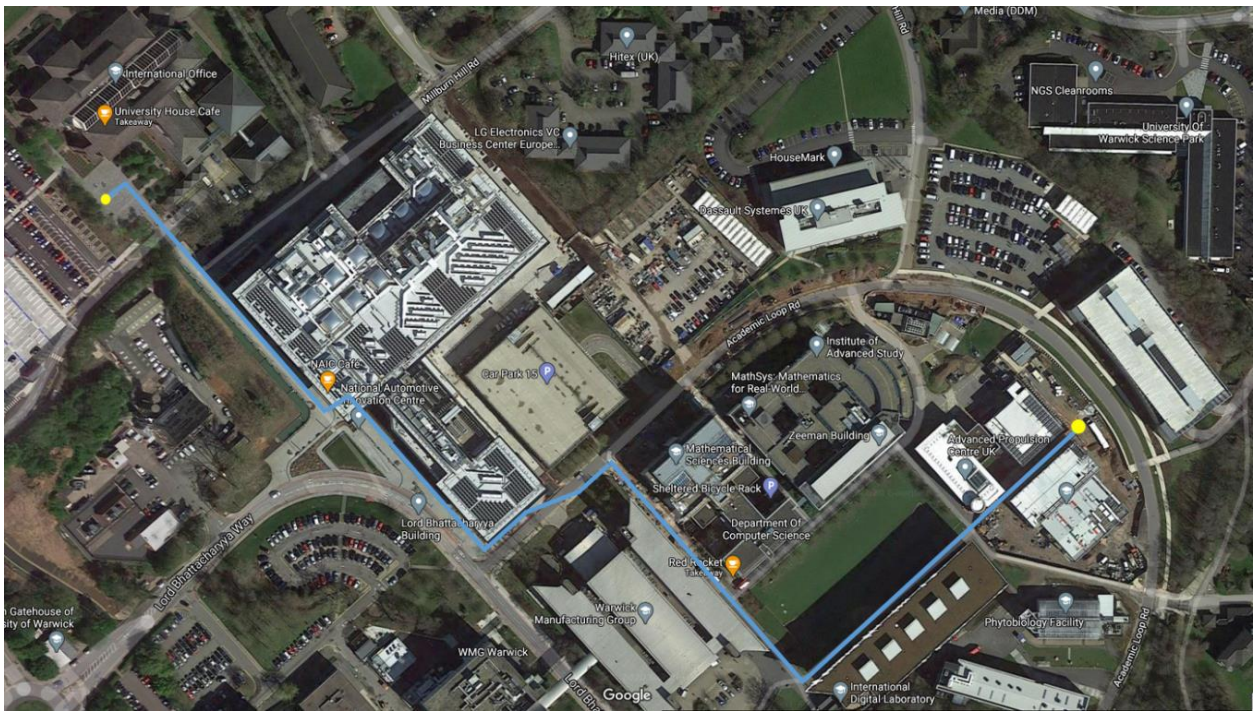
MIDLANDS FUTURE MOBILITY

Midlands Future Mobility Driveable Route:

Urban, Inter-urban, Rural and Highways Route Sector Overviews

Route Name/ID:	University of Warwick Campus. Low Speed Autonomy Showcase Route
Location:	University of Warwick, Coventry, West Midlands, CV4 7AL. United Kingdom (UK)
Road Authority/Land Owner:	University of Warwick (private land).
Route/Sector Length:	0.65 km (~0.4 miles)
Suitability:	Suitable for low-speed connected and automated vehicles designed to operate in shared space environments
Examples of other road user (not exhaustive):	Pedestrians, cyclists, e-scooter riders, vehicle traffic e.g. passenger cars, motorcycles, light and heavy goods vehicles, site traffic etc.

Route/Sector Map:



Route

Route start/end point

Route/Sector Description:
The University of Warwick Showcase route for low speed connected and automated vehicles links the National Automotive Innovation Centre (NAIC), International Digital Laboratory (IDL) and Advanced Propulsion Centre (APC) buildings on the Central Campus. The route has been designed as a viable cross-central campus transport route and potential future events service route. The route, between University House and the Lynchgate Car Park on the Central Campus, measures 0.64km (~0.4 miles) in length. A site speed limit of 20mph is in force for Central Campus main roads, which reduces to 10mph in certain areas. The pedestrian, cycle and other road user traffic on these paths and roads is very time of day dependent, with factors such as staff commuting hours, student lecture start/finish times, lunch, on campus events and latterly, COVID-19 restrictions, all influencing the level of pedestrian and cycle movement on campus. Under normal circumstances, peak movement times are expected to be between 08:00-09:30, 12:00-13:00 and 16:00-17:30.
Route Complexity:
The route is located on a publicly accessible University Campus and as such, the route is a shared space that is heavily used by a range of other road users. The route comprises paved, tarmac, and textured 'high friction' surfaces along predominantly straight sections, adjoined by both left and right turns (up to ~90°). There are no lane markings present on the route. The end-to-end gradient change along the route is minimal. Features of note include: • A traffic light controlled crossing installed on Academic Loop Road (triggered automatically via Radio Frequency Identification (RFID)) to stop other vehicle traffic in support of the safe crossing of the trial vehicle. • RFID controlled traffic warning lights and vehicle access barrier • Raised 'Pod Stops' at each end of the route for passenger access/egress. There is a large wildlife population on campus. For this route, wildlife such as birds (e.g. Canadian Geese) should be expected, in particular around the IDL lake area.
Connectivity and Key Infrastructure:
Infrastructure has been installed along this route as part of the Midlands Future Mobility Programme, to support the safe trialling and operation of low speed autonomous vehicles through additional monitoring of the trial activity. This includes the following: • End-to-end dedicated Closed Circuit Television (CCTV) coverage, with subject tracking, secure data storage and redaction software. • A Control Room for monitoring of the vehicle on trial via the CCTV and communicating with the trial team • Dedicated radio communications, with base units in the Control Room and portable handheld radios. There is good cellular data coverage on campus and a BT 5G network, the latter of which can be used for research purposes. Radio coverage is good, both locally between handheld units and from the control room base unit to handhelds on the route. Customers can access a full LIDAR (Light Detection and Ranging) scan of the route and photogrammetry data.
Comments/Further Information:
Vehicle charging and storage facilities can be made available on campus. The Met Office regional climate information for the West Midlands can be found here.