

Traffic Management Technical Services Ltd

FEASIBILITY STUDY: SITE VEHICLE MOVEMENTS FOR PROPOSED WORKS IN BROADWICK STREET, CITY OF WESTMINSTER

The purpose of the exercise was to examine various routes available to heavy goods vehicles to enable them to service the proposed site in Broadwick Street.

The initial obvious route was Oxford Street, turning right into Berwick Street as the left turn was deemed impossible for a heavy goods vehicle (articulated or rigid). However, the construction of a new central reservation in Oxford Street would prohibit the turn and we must assume that these works are covered by a “Section 58” prohibiting new works for up to 5 years. For the same reason it would be impossible for an HGV to make a left turn from Poland Street into Oxford Street.

After various “false starts” we have determined that the only plausible route, in our opinion, is Shaftesbury Avenue (from either direction) into Wardour Street, then turning left into Broadwick Street where site deliveries / collections would take place. On completion of delivery / collection it would then be necessary for the vehicle to manoeuvre – with the aid of a traffic marshal – to enable a right turn into Poland Street. The vehicle would then need to turn left into Great Marlborough Street and then turn left or right into Regent Street to complete it’s journey.

It can be seen from the attached VSP drawings and reports that this is the only viable option and the only vehicle capable of making these manoeuvres is a 15m articulated lorry, therefore any tippers required to carry away waste would need to be articulated with a maximum length of 15m with “non-steer” rear axles.

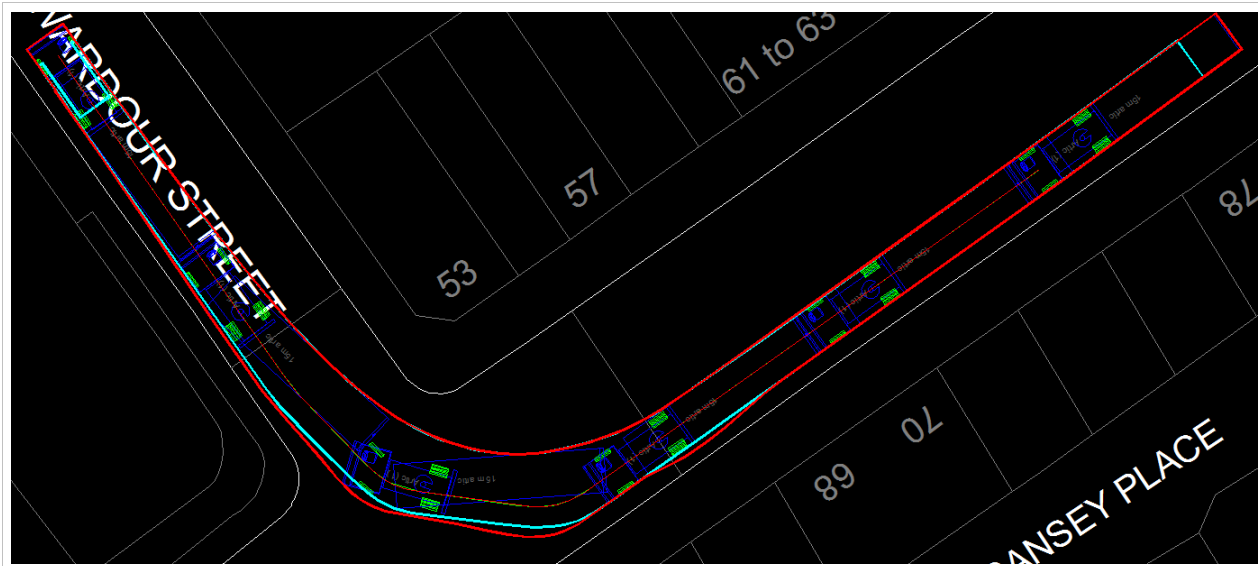
The following pages show details for the movements of such a vehicle at critical points along the suggested route. These can also be read in conjunction with the Vehicle Swept Path Analysis drawings numbered:
VSP-MG-COW-BROADWICK STREET-001 to 007.

In addition, there is also a drawing giving an overview of the route and locations of recommended parking suspensions. The parking suspensions would be necessary in order to enable a clear passage for an HGV: TM-MG-COW-BROADWICK STREET-001

Traffic Management Technical Services Ltd

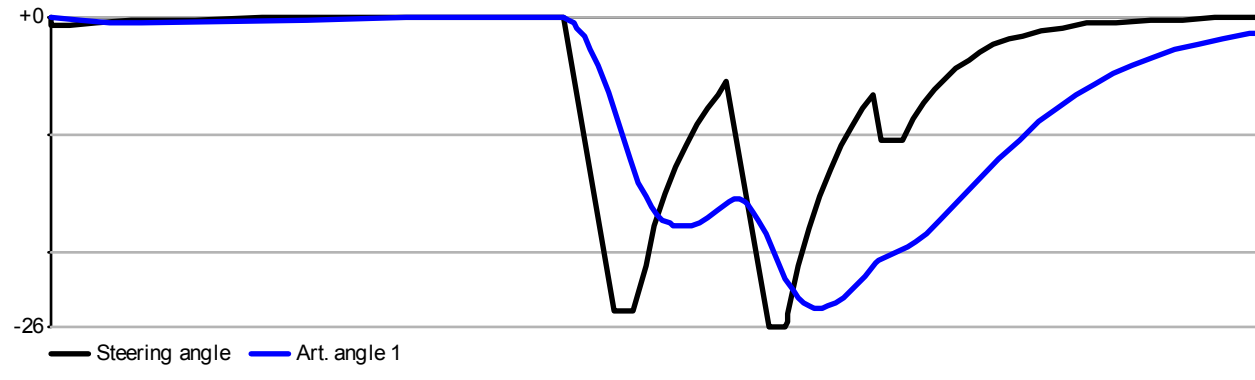
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC RIGHT FROM SHAFTESBURY AVENUE INTO WARDOUR STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-001)



Angle graph

(Degrees)



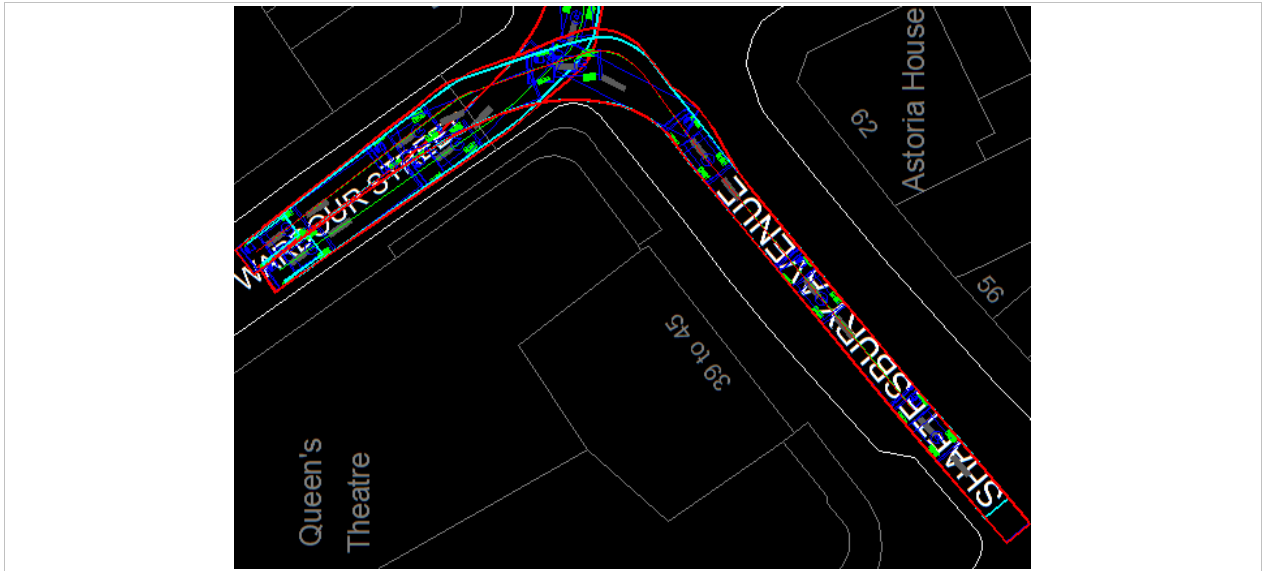
Object: 15m artic

Used steering angle:	-26.4 deg (59.7 % of 44.3 deg)
Traveled distance:	75.0 m
Travel time:	0:27 min
Average velocity:	6.2 mph
Used TTP(s):	Steering

Traffic Management Technical Services Ltd

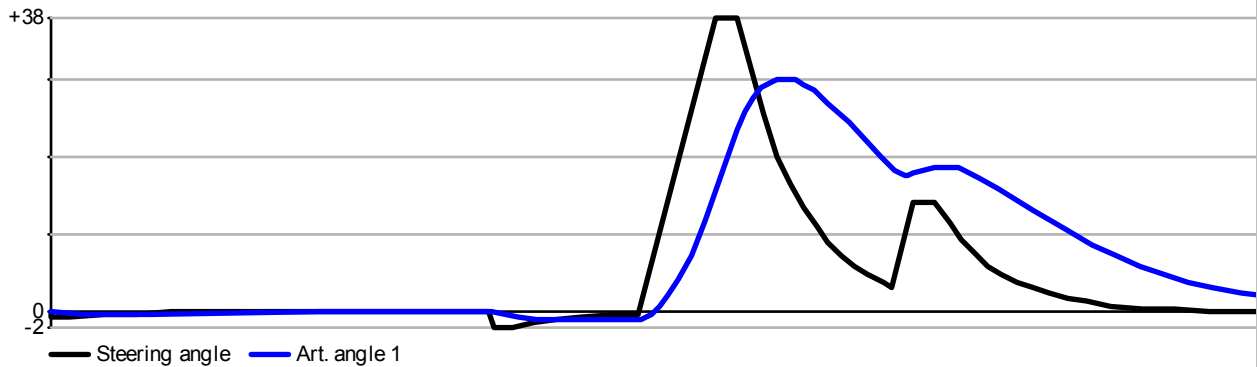
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC LEFT FROM SHAFTESBURY AVENUE INTO WARDOUR STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-001)



Angle graph

(Degrees)



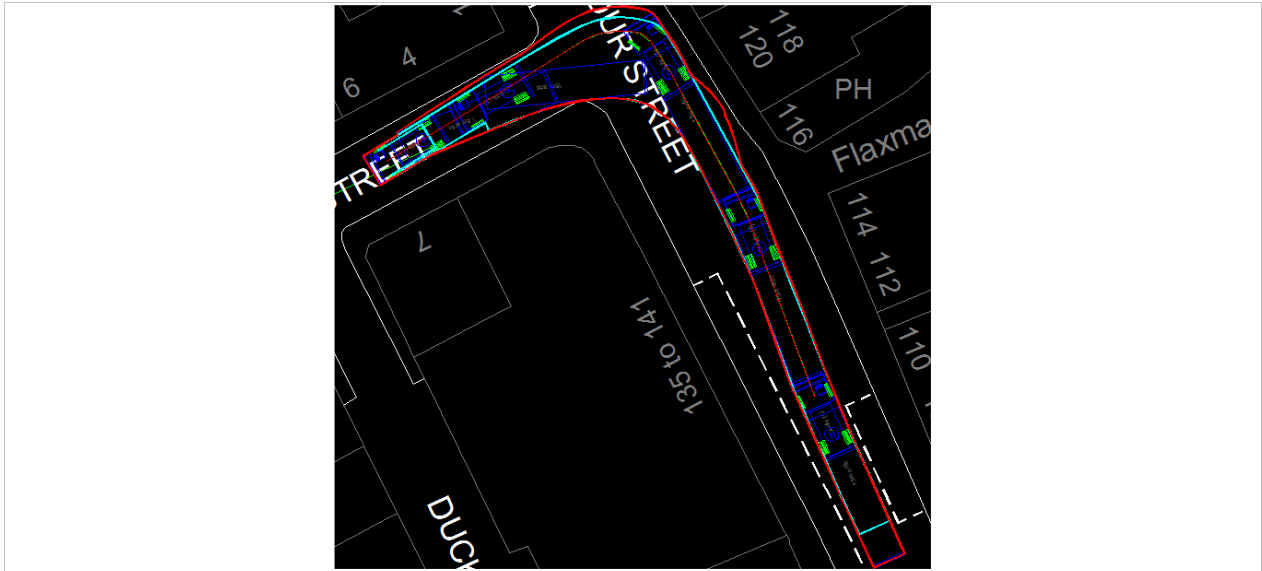
Object: 15m artic

Used steering angle:	37.9 deg (85.5 % of 44.3 deg)
Traveled distance:	73.7 m
Travel time:	0:26 min
Average velocity:	6.2 mph
Used TTP(s):	Steering

Traffic Management Technical Services Ltd

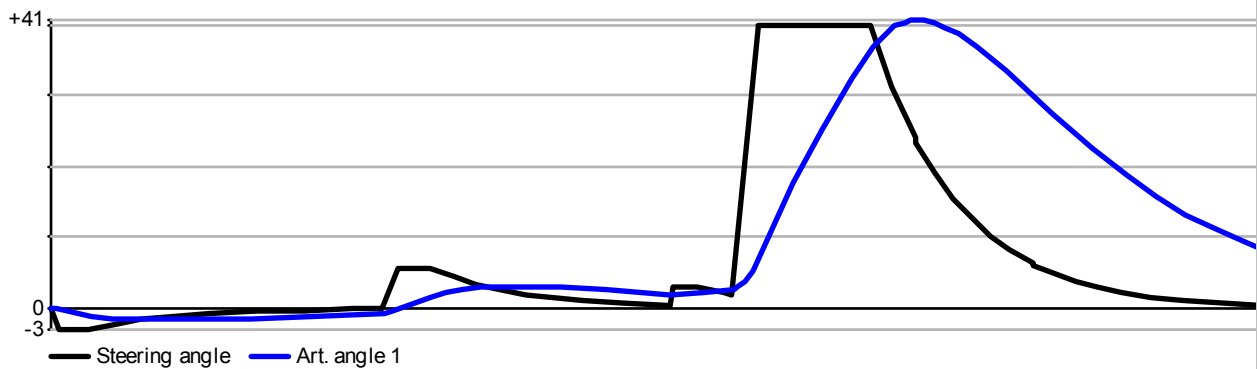
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC LEFT FROM WARDOUR STREET INTO BROADWICK STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-002)



Angle graph

(Degrees)



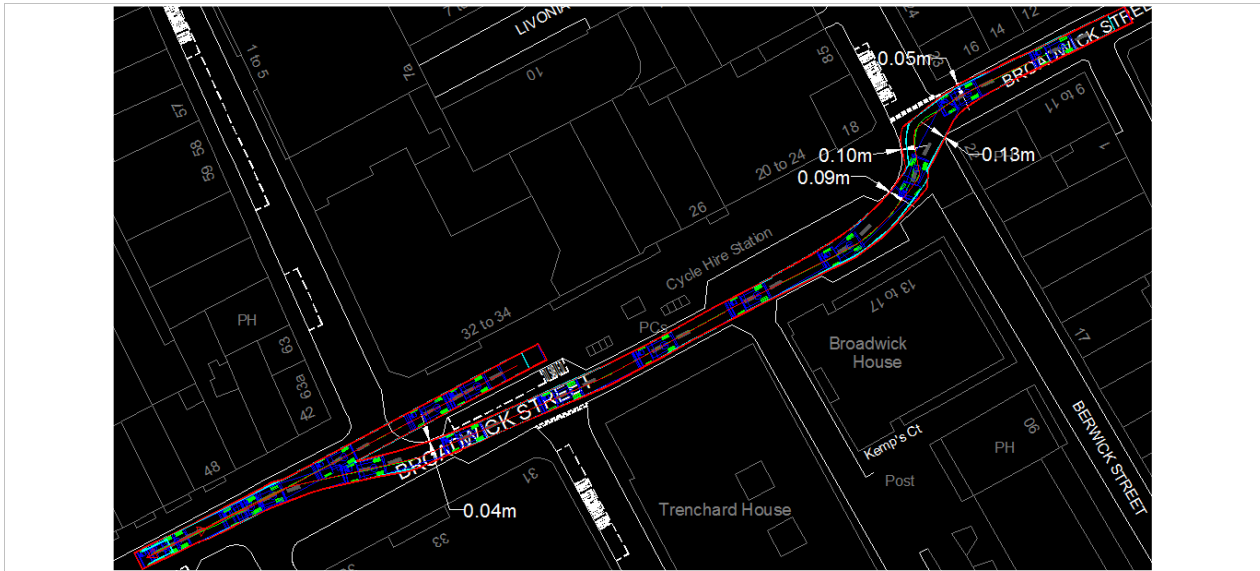
Object: 15m artic

Used steering angle:	39.9 deg (90.0 % of 44.3 deg)
Traveled distance:	52.3 m
Travel time:	0:50 min
Average velocity:	2.3 mph
Used TTP(s):	Steering

Traffic Management Technical Services Ltd

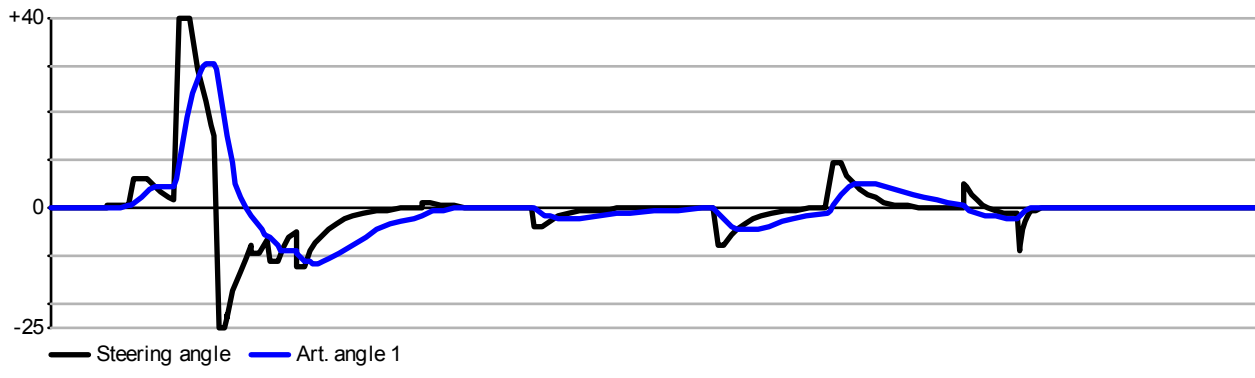
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC ENTERING SITE IN BROADWICK STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-003)



Angle graph

(Degrees)



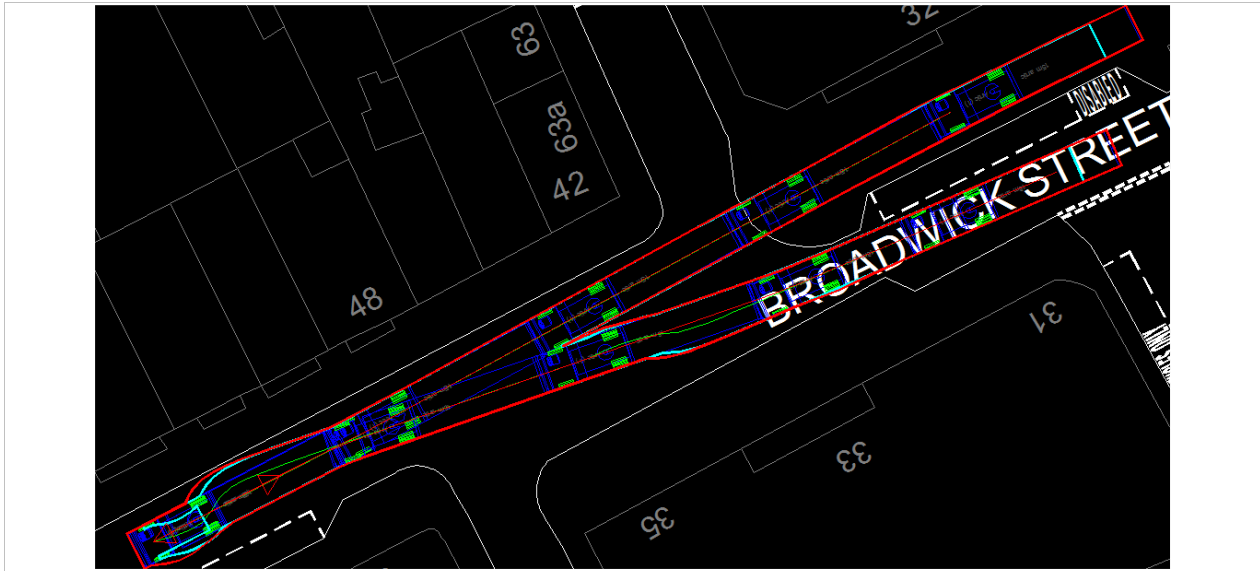
Object: 15m artic

Used steering angle:	39.9 deg (90.0 % of 44.3 deg)
Traveled distance:	201.5 m
Travel time:	2:36 min
Average velocity:	2.9 mph
Used TTP(s):	Steering, Reversing trailer

Traffic Management Technical Services Ltd

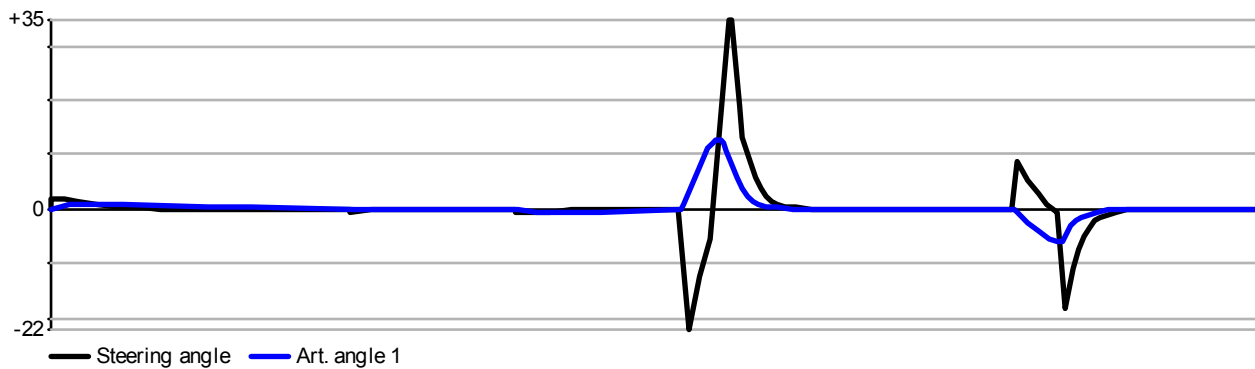
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC FORWARDS AND THEN REVERSING TO LEAVE SITE IN BROADWICK STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-004)



Angle graph

(Degrees)



Object: 15m artic

Used steering angle:	34.7 deg (78.4 % of 44.3 deg)
Traveled distance:	116.0 m
Travel time:	1:26 min
Average velocity:	3.0 mph
Used TTP(s):	Steering, Reversing trailer

Traffic Management Technical Services Ltd

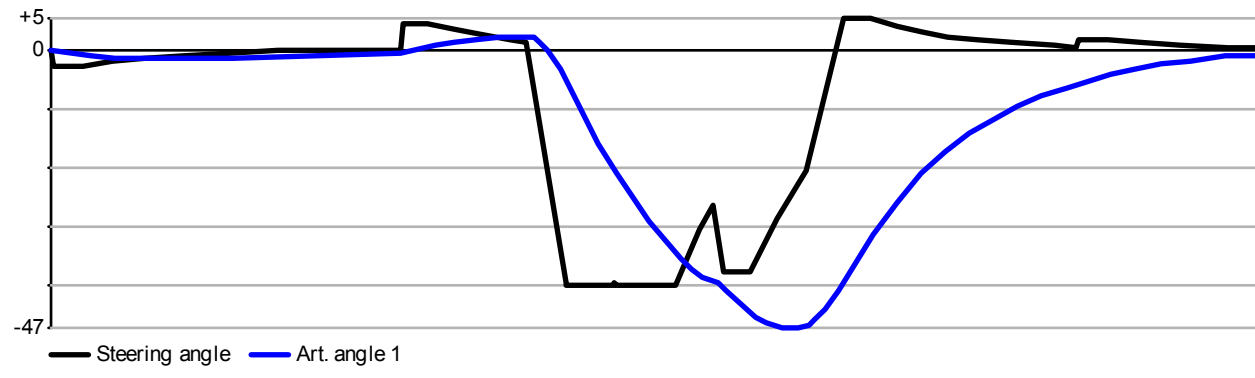
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC EXITING SITE IN BROADWICK STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-005)



Angle graph

(Degrees)



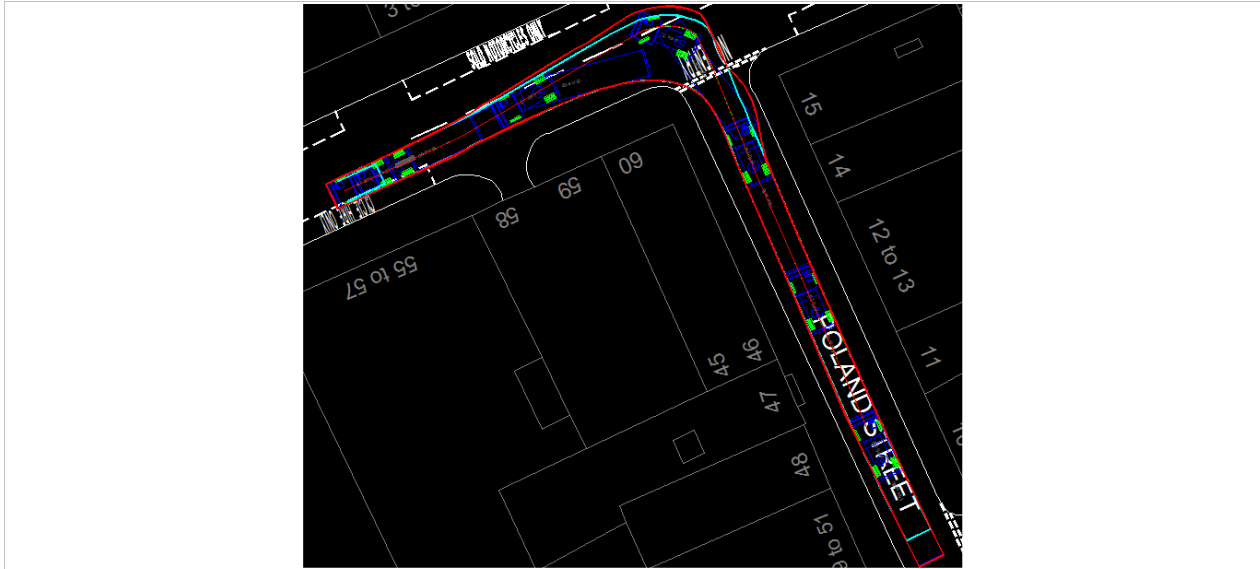
Object: 15m artic

Used steering angle:	-39.9 deg (90.0 % of 44.3 deg)
Traveled distance:	52.8 m
Travel time:	0:45 min
Average velocity:	2.6 mph
Used TTP(s):	Steering

Traffic Management Technical Services Ltd

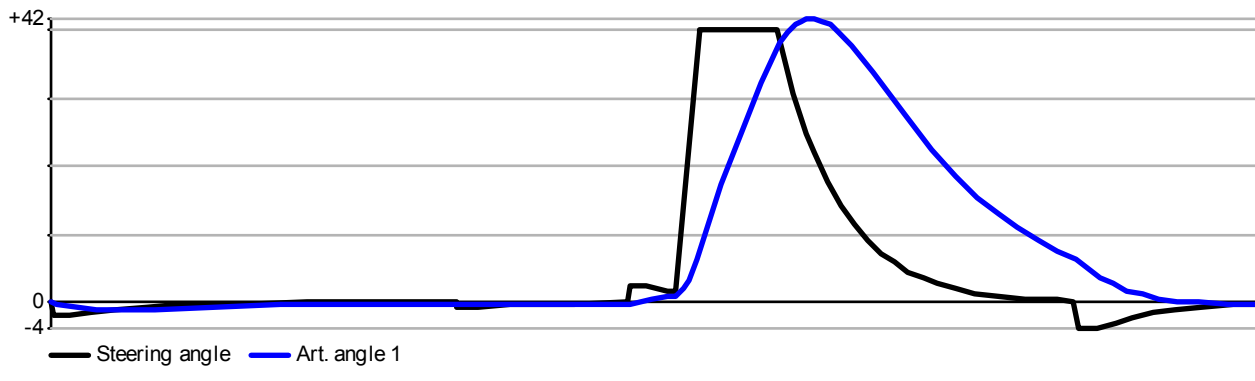
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC LEFT FROM POLAND TREET INTO GREAT MARLBOROUGH STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-006)



Angle graph

(Degrees)



Object: 15m artic

Used steering angle: 39.9 deg (90.0 % of 44.3 deg)
Traveled distance: 77.2 m
Travel time: 0:58 min
Average velocity: 2.9 mph
Used TTP(s): Steering

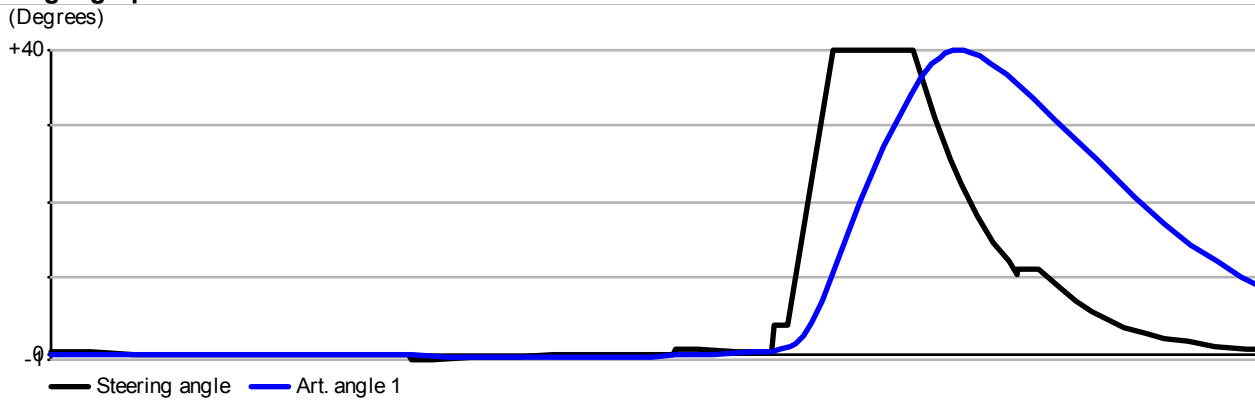
Traffic Management Technical Services Ltd

VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC LEFT FROM GREAT MARLBOROUGH STREET INTO REGENT STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-007)



Angle graph



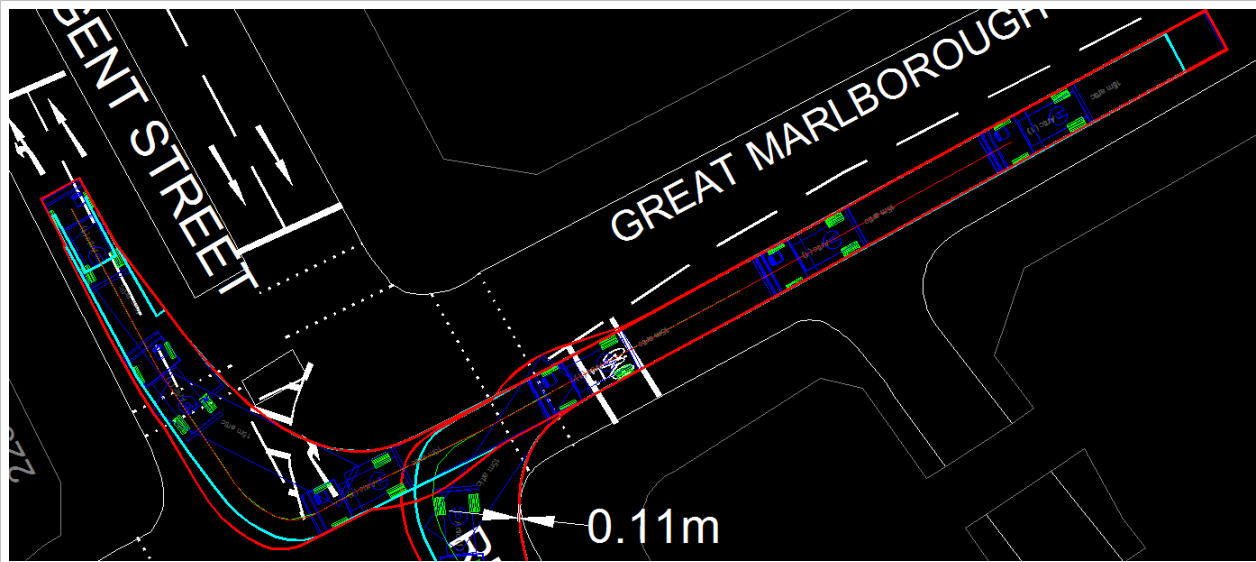
Object: 15m artic

Used steering angle:	39.9 deg (90.0 % of 44.3 deg)
Traveled distance:	60.7 m
Travel time:	0:33 min
Average velocity:	4.1 mph
Used TTP(s):	Steering

Traffic Management Technical Services Ltd

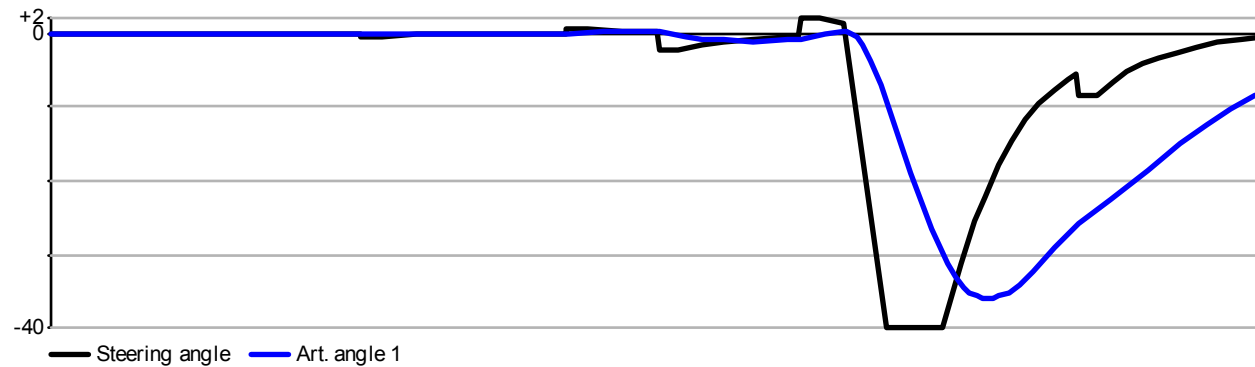
VEHICLE SWEEP PATH ANALYSIS REPORT: ARTIC RIGHT FROM GREAT MARLBOROUGH STREET INTO REGENT STREET

(SEE DRAWING: VSP-MG-COW-BROADWICK STREET-007)



Angle graph

(Degrees)



Object: 15m artic

Used steering angle:	-39.9 deg (90.0 % of 44.3 deg)
Traveled distance:	70.2 m
Travel time:	0:40 min
Average velocity:	3.8 mph
Used TTP(s):	Steering