



Regulating Vehicle Access
for improved Livability

City of London zero emission zone

Samantha Tharme – October 2020



This project has received
funding from the European
Union's Horizon 2020 research
and innovation programme
under grant agreement No
815008.



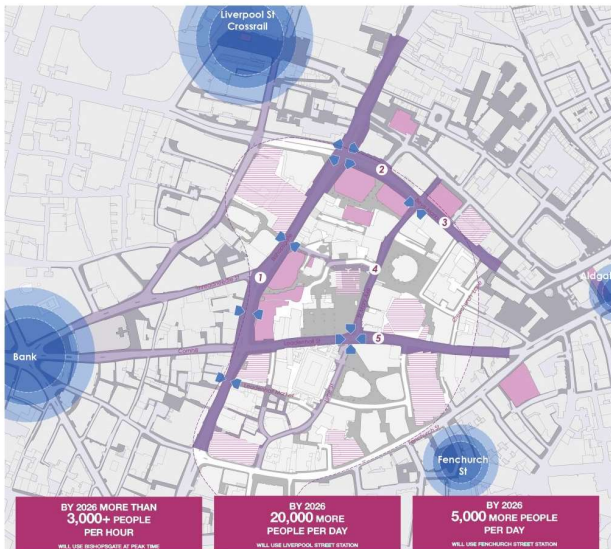


Fig. Predicted busy streets and pedestrian pinch points (* predicted figures from Fluid Architects Stage 1 Audit 2017)

90%

of on-street journeys that start or finish in the City are entirely or partially walked, including walking to and from public transport

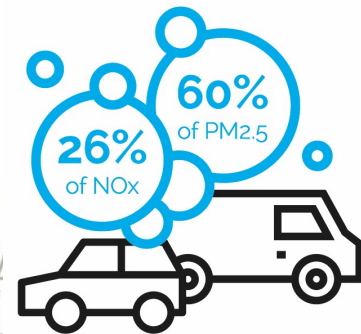


Zero-emission zones



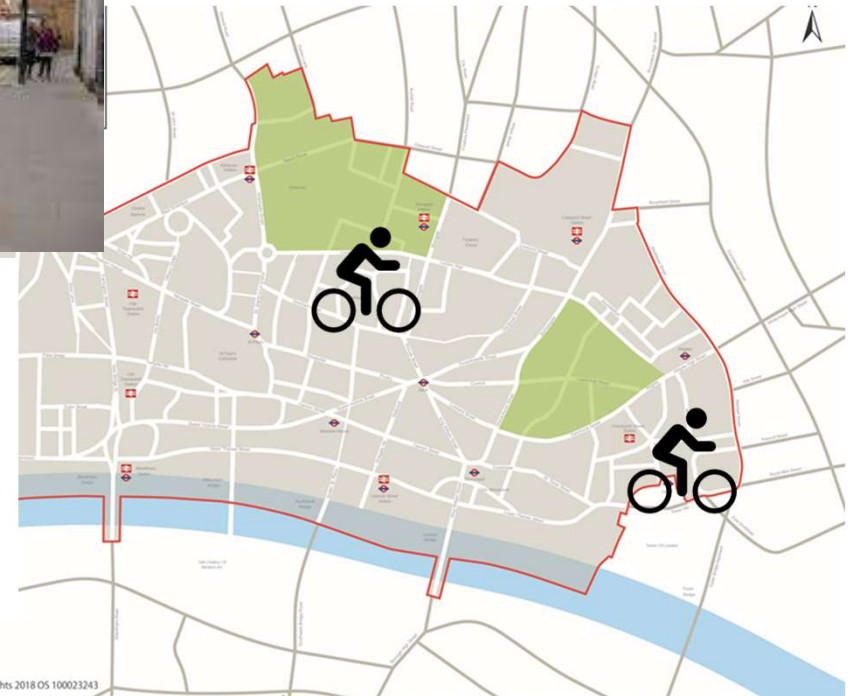
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Road transport is responsible for 26% of NO_x emissions and 60% of PM_{2.5} emissions in the Square Mile. Monitoring for NO₂ on our busiest streets has found concentrations are often twice the safe limit





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Supporting measures

- Logistic centres, last mile zero emission
- Zero emission waste collection fleet – City vehicles
- Electric Vehicle car clubs – residents/small business
- Electric cargo bikes
- EV charging infrastructure





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London context – ulez cycle lanes etc;...see maps

City cluster context – constraints there

London bridges – strategic crossing & link in to strategic road network.

Consultation context...quick overview.

Figs on GDP contribution of city of London ...City is the UK's single most significant sector providing almost 10% of all UK GDP

Our problem – how to manage on-street dynamic booking system

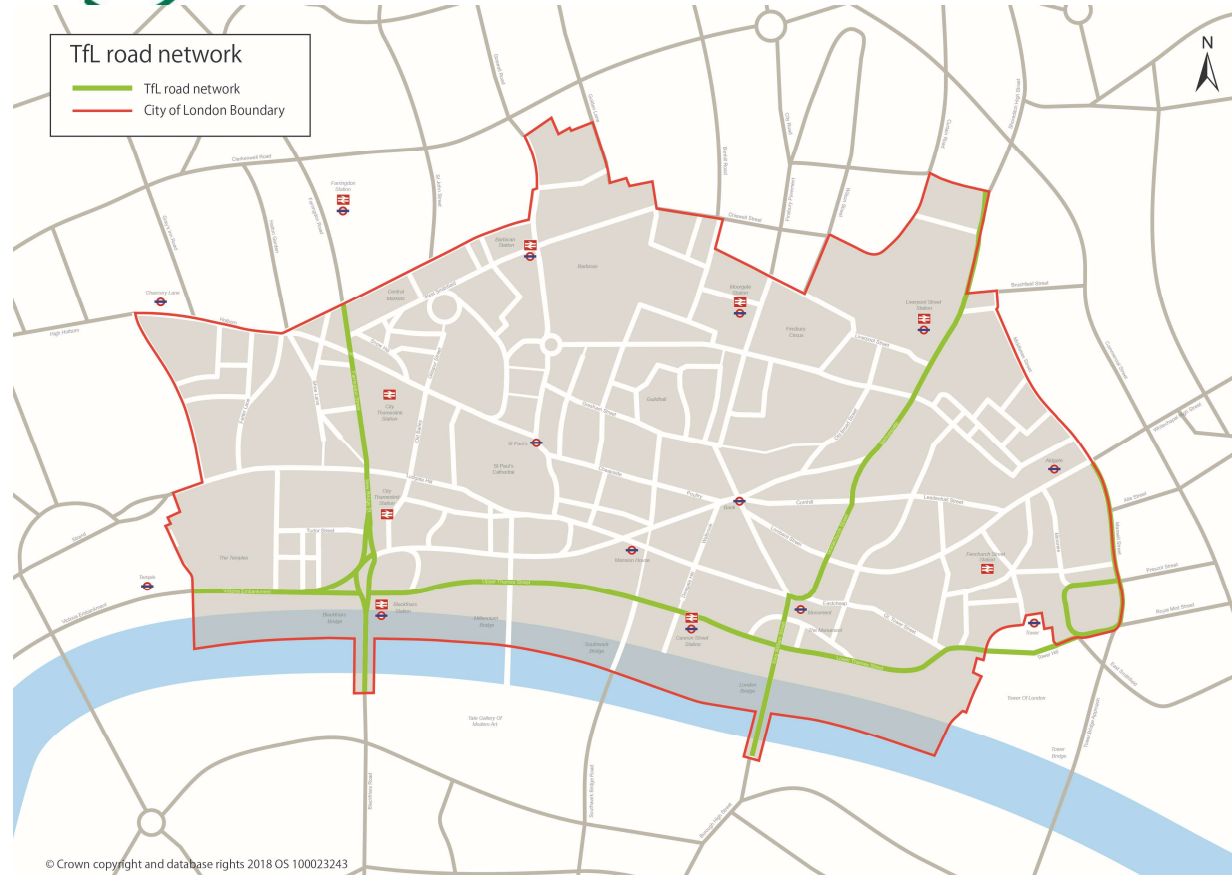


Current area of London covered by Ultra Low Emission Zone

April 2019 ULEZ launch –light vehicles £12.50 charge - £100 charge for heavier vehicles,



- April 2019 ULEZ launch –light vehicles £12.50 charge - £100 charge for heavier vehicles,
- LEZ standards for heavy vehicles, due for Oct 2020 - delayed to 1 March 2021 due to the pandemic
- September introduction of a heavy vehicle scrappage extension to the van scrappage scheme, so you may want to include that

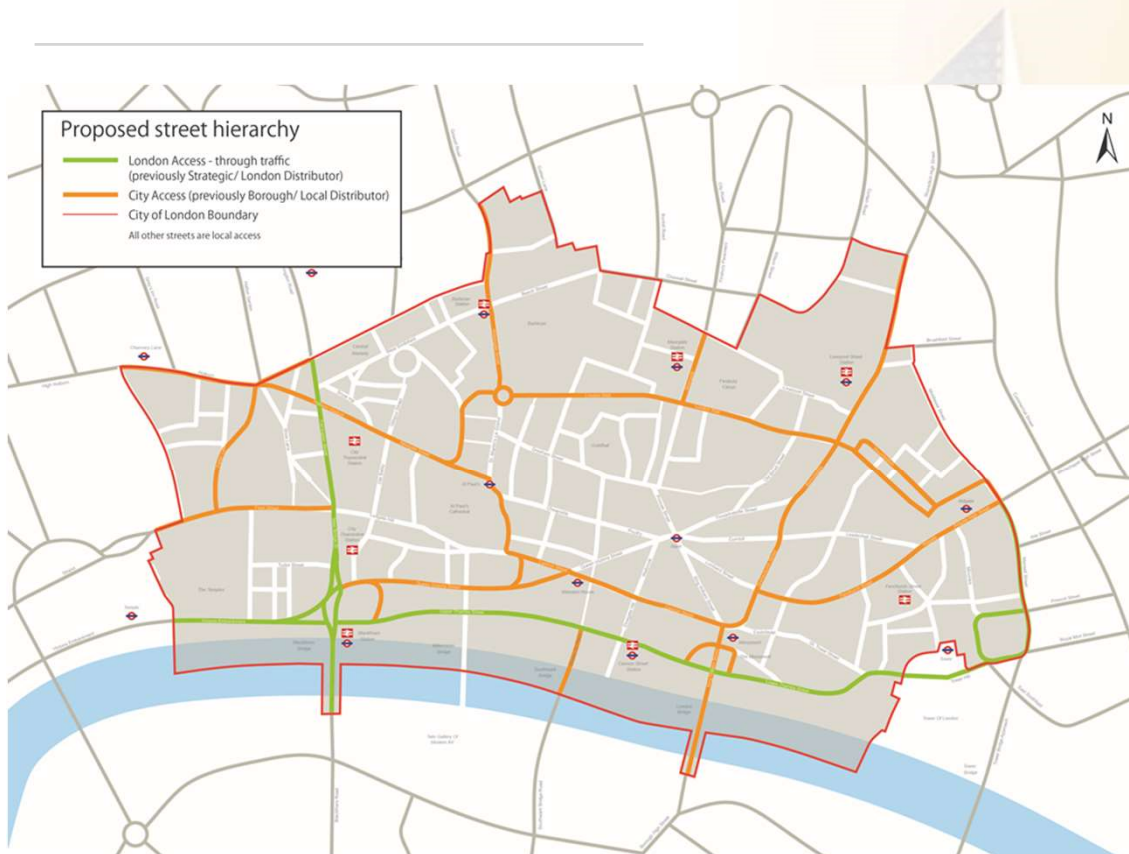


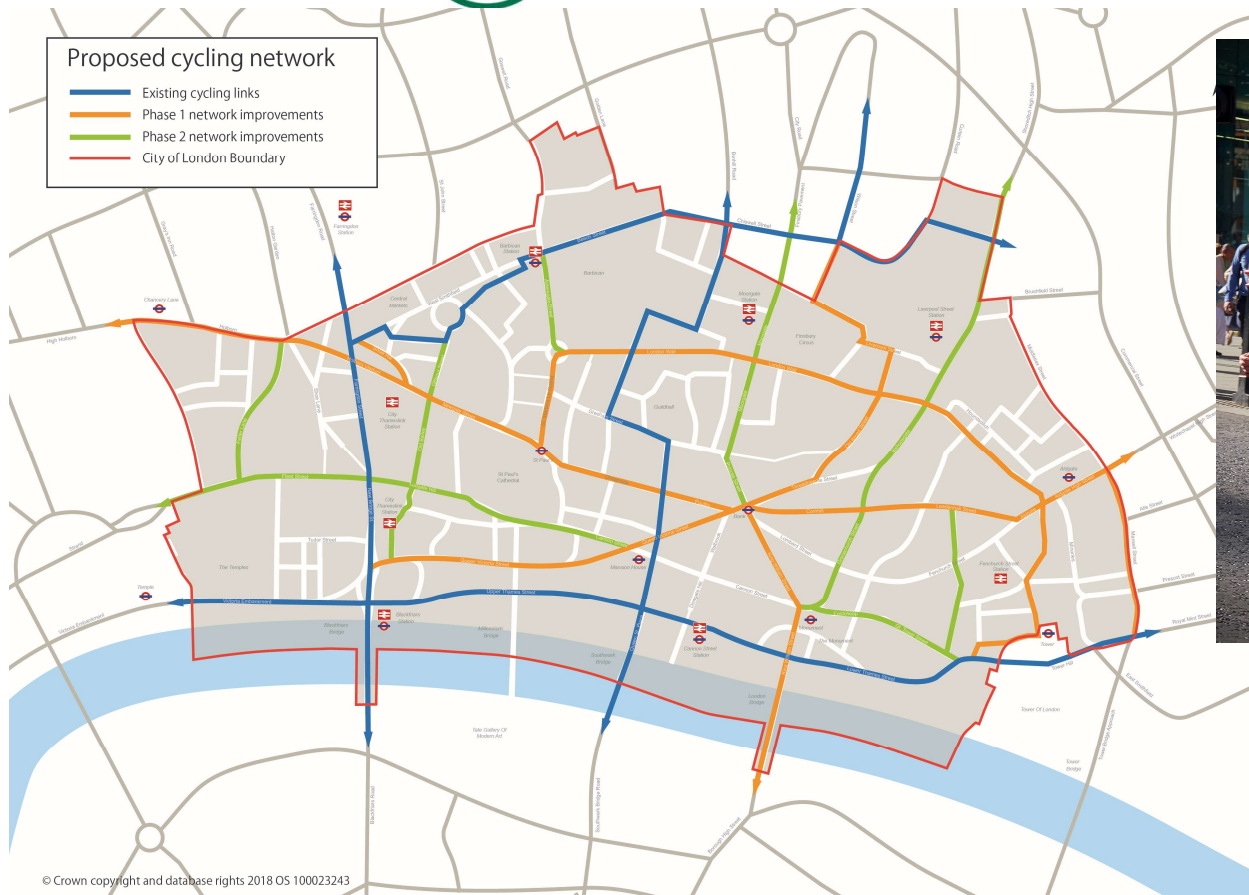


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Street hierarchy – template for how we are laying out and deciding measures and street closures

Context within London







Programme and COVID-19 impact temporary measures

**ST MARY AXE , LEADENHALL ,
BISHOPSGATE**

**June 2020 – 7am-7pm restriction
access only St Mary Axe; No through
traffic Leadenhall Street 24hr.**

**Jan 2021 – peak period closures of St
Mary Axe – all motor vehicles**

**Autumn 2022 – ZEZ 12hr restrictions
for whole area**





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St Mary Axe – experimental scheme



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Actions

- Restrict motor vehicle access
- Supporting measures



Scheme objectives

- More space and ease of movement for people walking
- Fewer vehicles.
- Better air quality
- Maintaining essential access to buildings





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We have a high density of floorspace

53 goods vehicles per hour entering the street morning peak

194 all vehicles

Aim to introduce limited period closures in first instance:

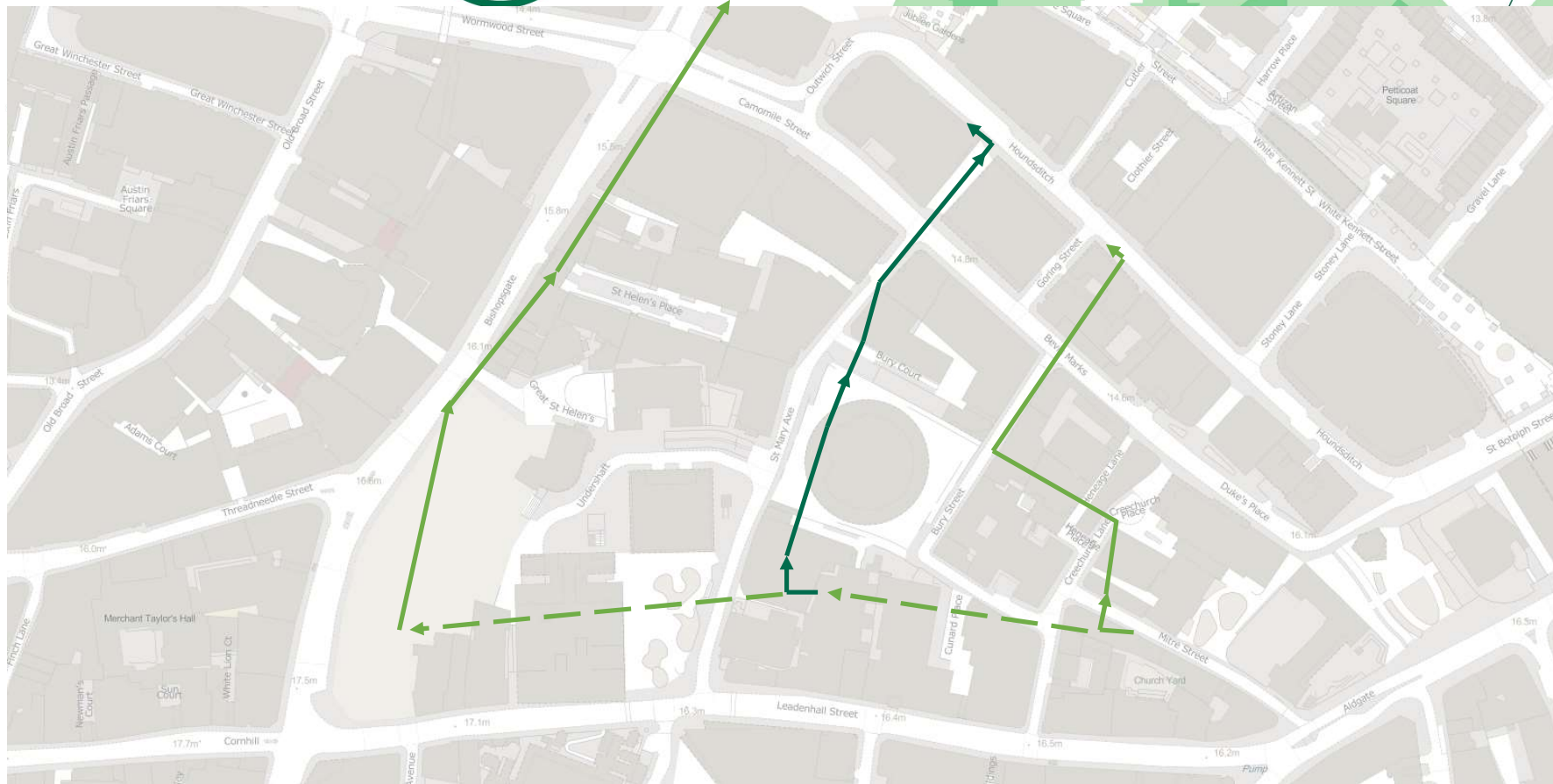
closure of St Mary Axe to motor vehicles

during the morning (08:00 – 09:30) and

evening (16:30 – 18:30) peak periods on weekdays.

These times have been chosen as they are the times when pedestrian numbers are at their highest, and to minimise disruption to businesses who require vehicle access from St Mary Axe.

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How and what data collected

- **Pedestrians**
- **Traffic flows**
- **Loading activity**

Bigger picture – kerbside action plan





for improved Livability

Traffic Flows

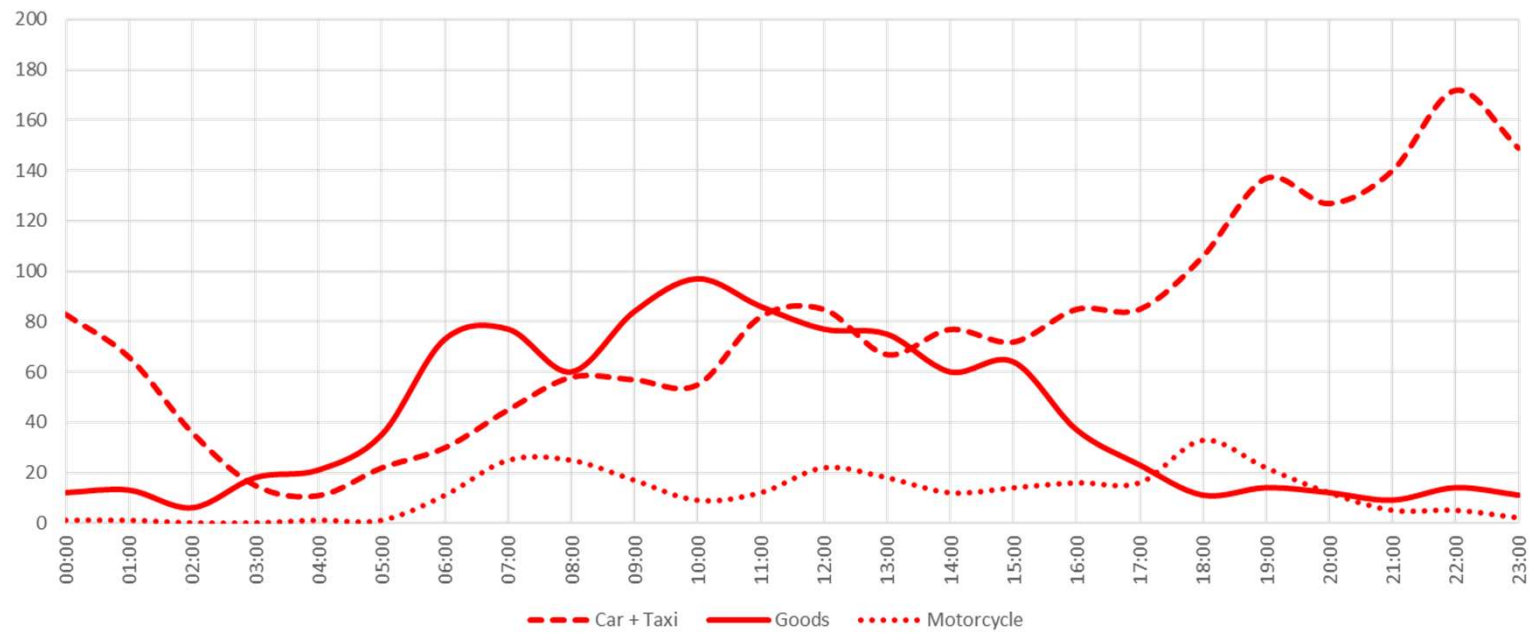
St Mary Axe



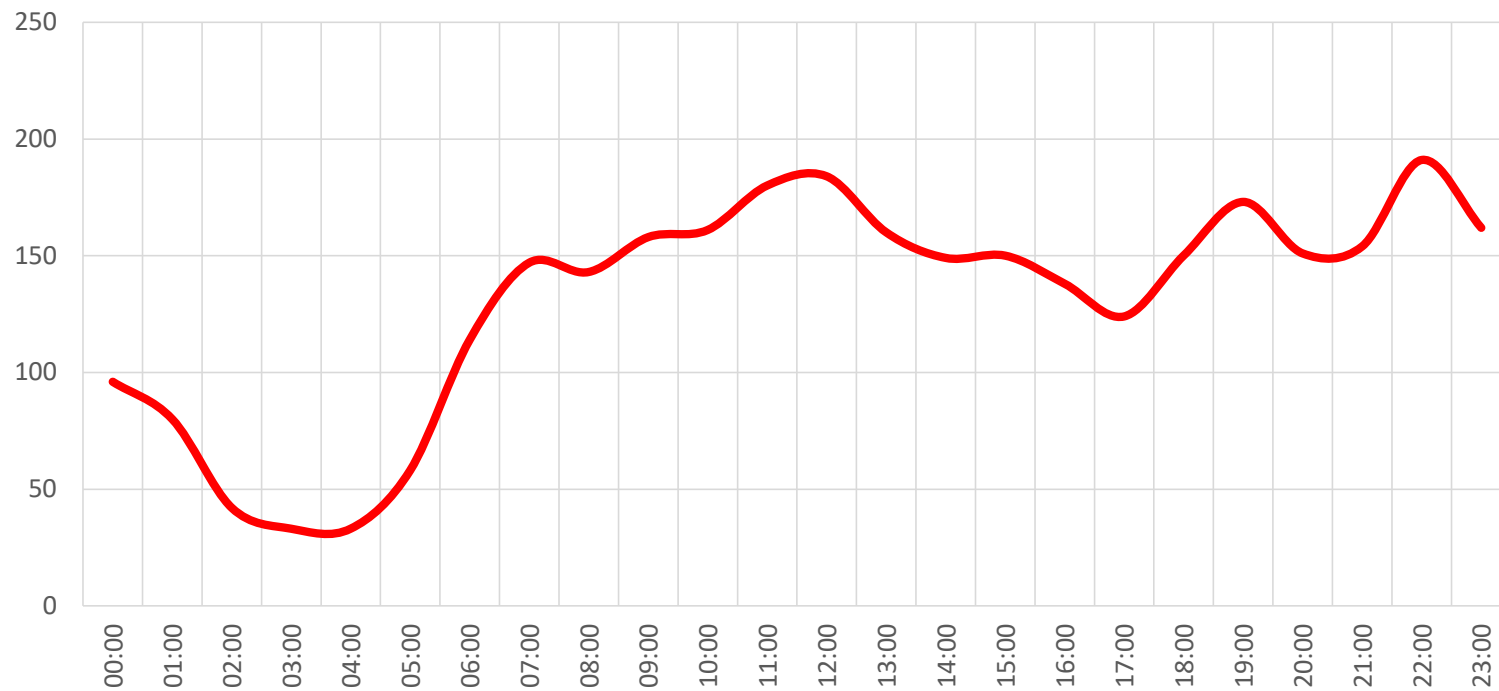
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St Mary Axe Weekday Traffic Flows*



St Mary Axe Weekday Motor Traffic Flows*



* Maximum flows

Average of three day traffic data – vehicle traffic on to St Mary Axe

	Total Vehicle Traffic (Motor traffic + cycle)	Motor Traffic Levels	Car	Taxi	Goods	Motorcycle	Total Cycle	Pedal Cycle (S - N)	Pedal Cycle (Contraflow N- S)
24 hours	3,436	2886	1053	610	932	291	549	331	219
08:00 – 09:30	292	182	41	58	80	36	110	104	6
16:30 – 18:30	387	272	117	66	46	43	115	34	81



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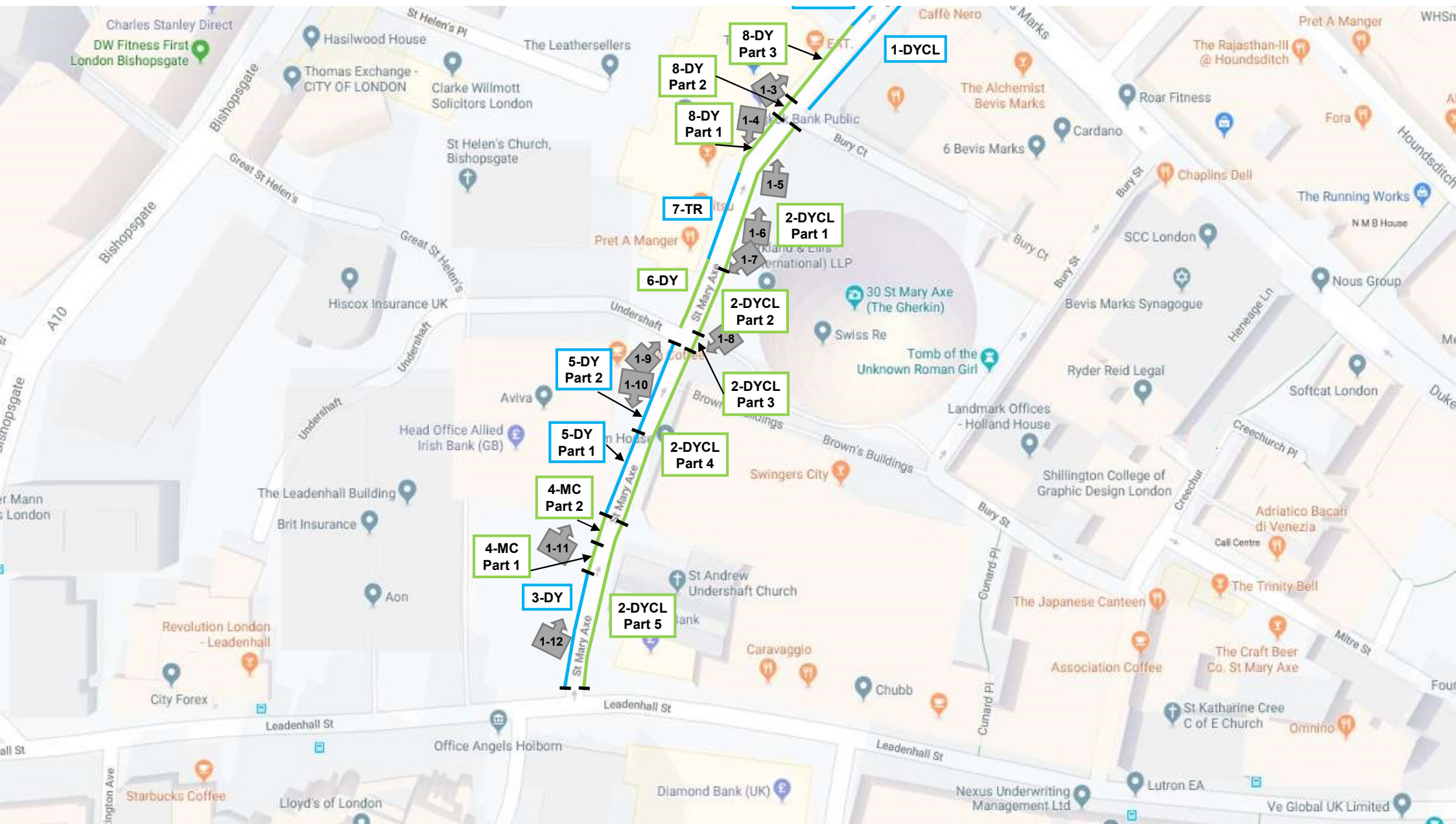
On-street Vehicle Activity

St Mary Axe



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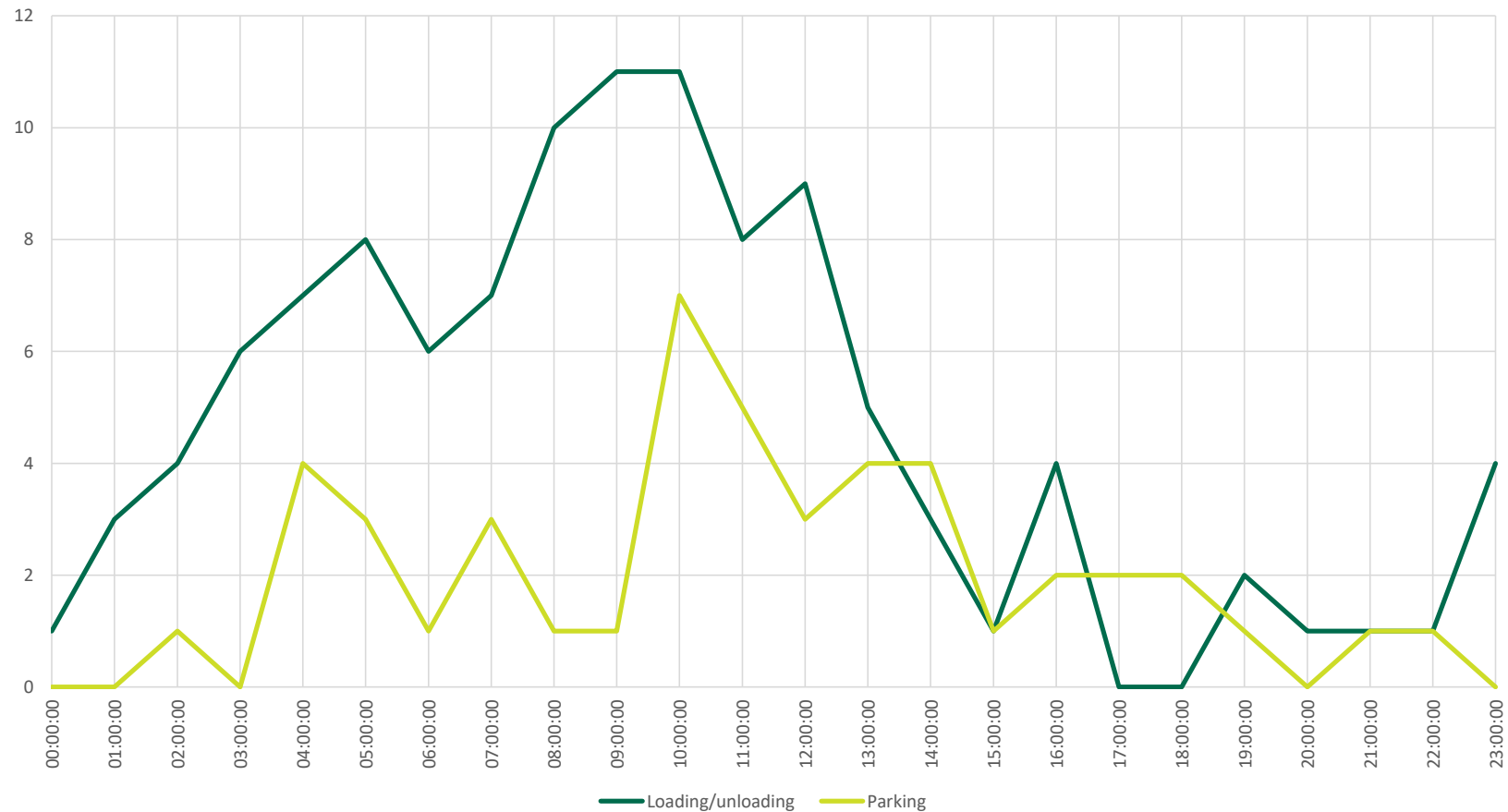




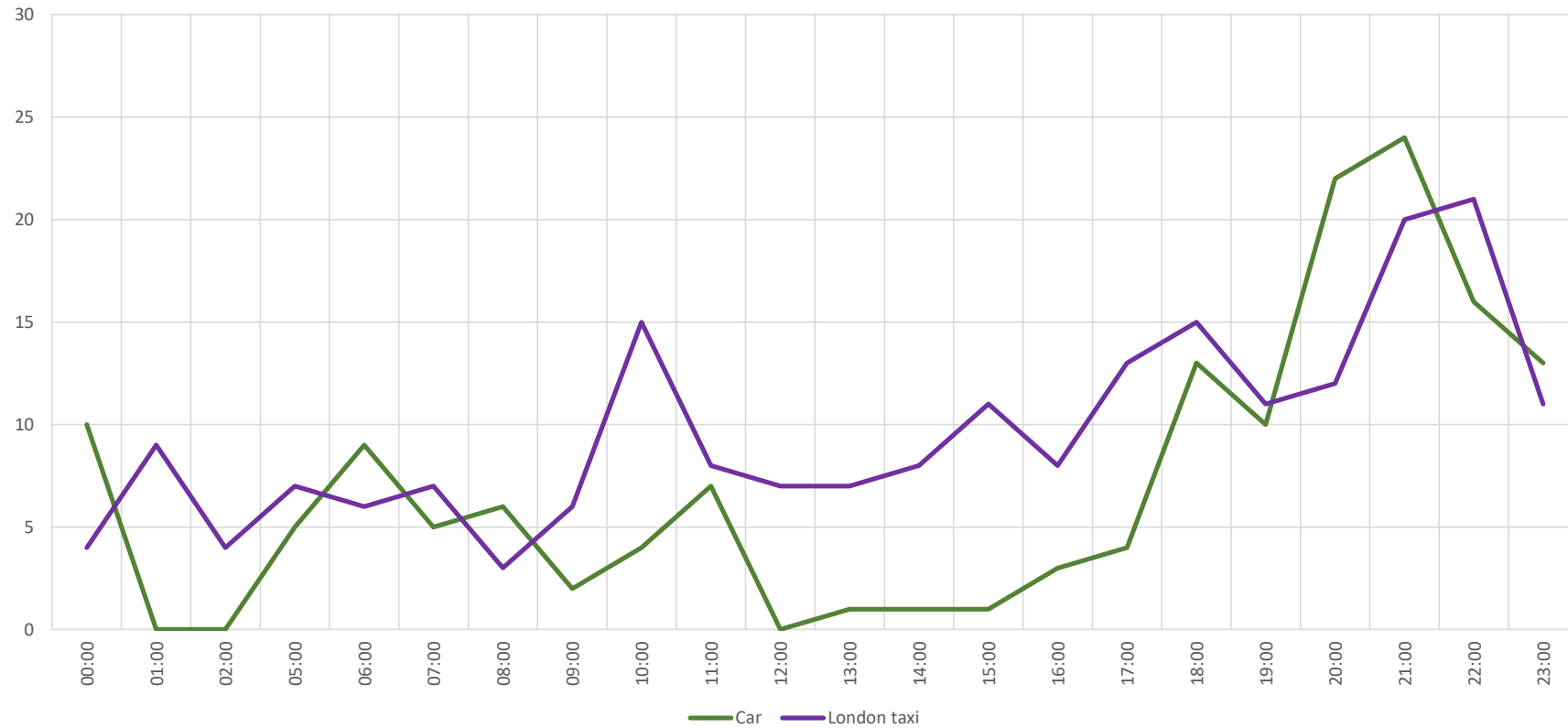
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Hour Starting	Loading/unloading	Maintenance	No activity	Parcel pick up/drop off	Parking	Passenger pick up/drop off	Waiting	Waste Collection	Grand Total
00:00:00	-	1	12	1	4	14	2	-	34
01:00:00	1	-	5	5	3	9	2	-	25
02:00:00	4	-	2	-	4	4	2	2	18
03:00:00	4	-	3	3	-	-	1	1	12
04:00:00	3	-	--	5	6	1	-	-	15
05:00:00	9	-	4	5	7	12	1	-	38
06:00:00	4	1	4	3	14	15	4	2	47
07:00:00	6	-	6	1	23	12	-	2	50
08:00:00	6	-	9	6	8	9	1	-	39
09:00:00	8	-	11	5	6	8	6	-	44
10:00:00	12	1	14	5	16	19	3	-	70
11:00:00	7	1	8	3	10	15	2	-	46
12:00:00	4	-	6	9	10	7	2	-	38
13:00:00	3	-	11	2	6	9	6	-	37
14:00:00	1	-	7	3	13	10	2	-	36
15:00:00	1	-	5	1	6	12	2	-	27
16:00:00	2	-	15	3	7	11	1	-	39
17:00:00	-	-	19	7	6	18	1	2	53
18:00:00	1	-	11	26	9	28	-	-	75
19:00:00	1	-	7	18	4	21	2	-	53
20:00:00	-	-	14	3	7	34	3	-	61
21:00:00	1	-	22	4	1	45	-	-	73
22:00:00	1	-	20	1	5	37	1	1	66
23:00:00	5	-	14	--	7	24	1	-	51
Grand Total	84	4	229	119	190	375	45	10	1056
% OF TOTAL 24HR	8%	0%	22%	11%	18%	36%	4%	1%	

Goods Vehicles On-street Activity



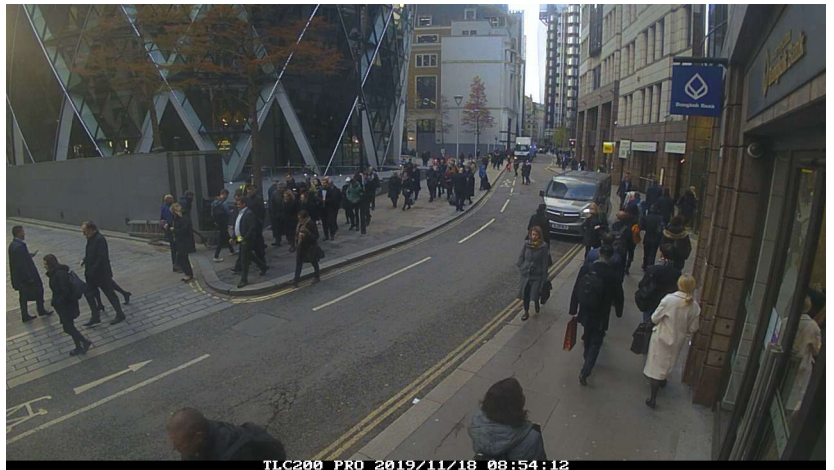
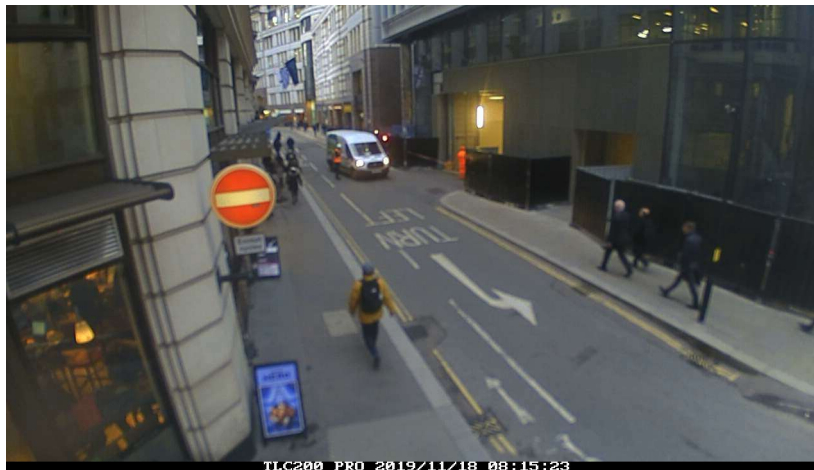
Passenger Drop off/ Pick Up Activity



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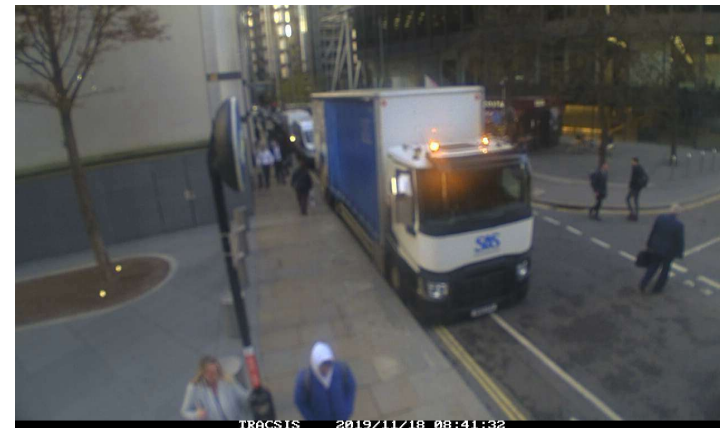
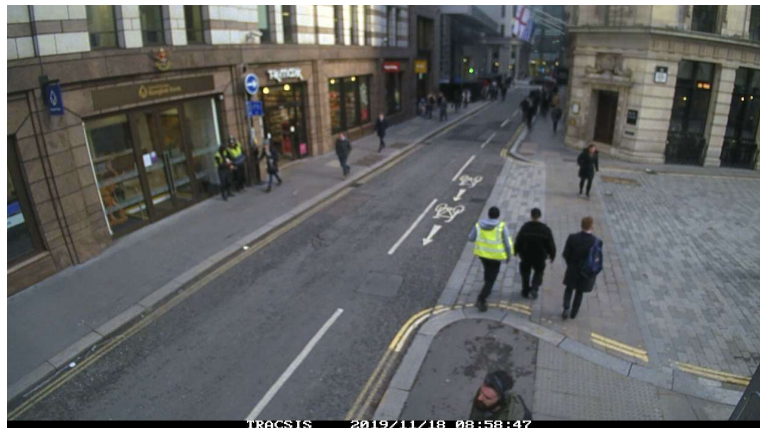


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Part 3

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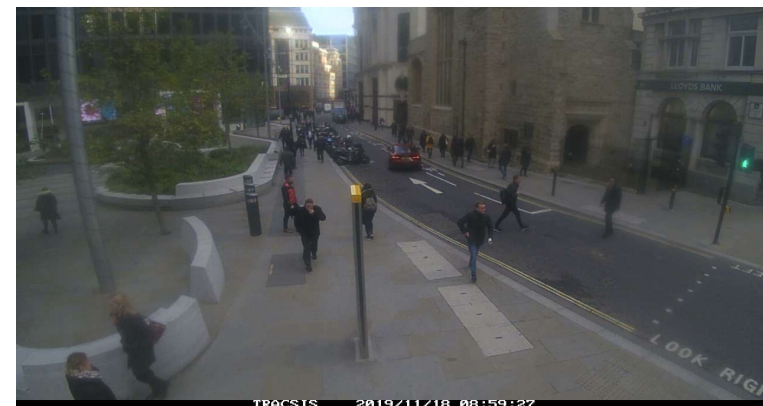
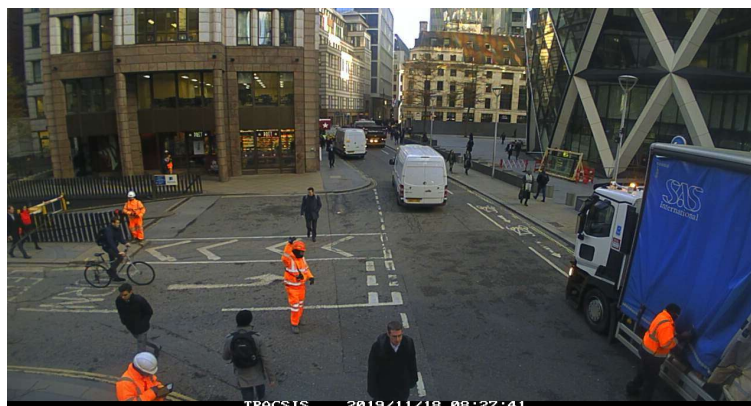
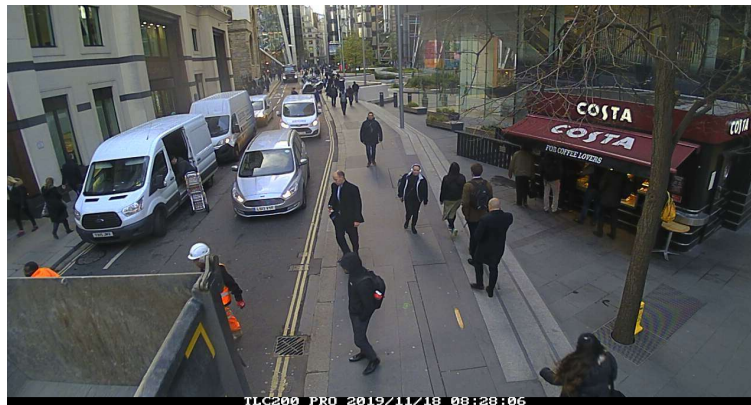


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Thank you for your attention

Samantha Tharme – City of London



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