Transport Analysis Report (Synthetic Data)

Generated with RANDOM_SEED=2025

Study description:

Corridor with 3 links. Synthetic hourly counts generated via Poisson sampling. Speeds estimated with Greenshields model. Queue delays estimated via M/M/1 approximation. This report contains time-series plots and tables.
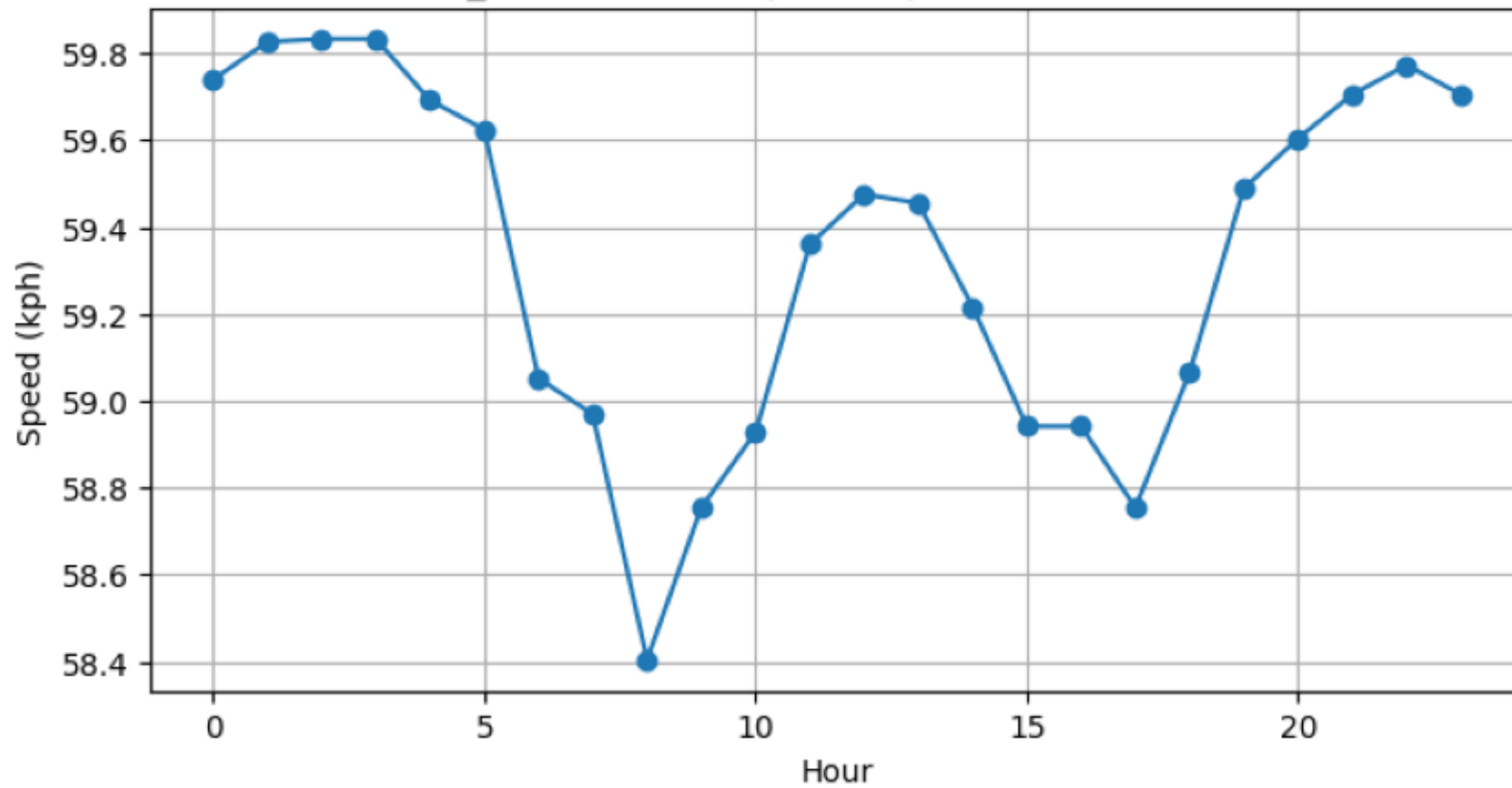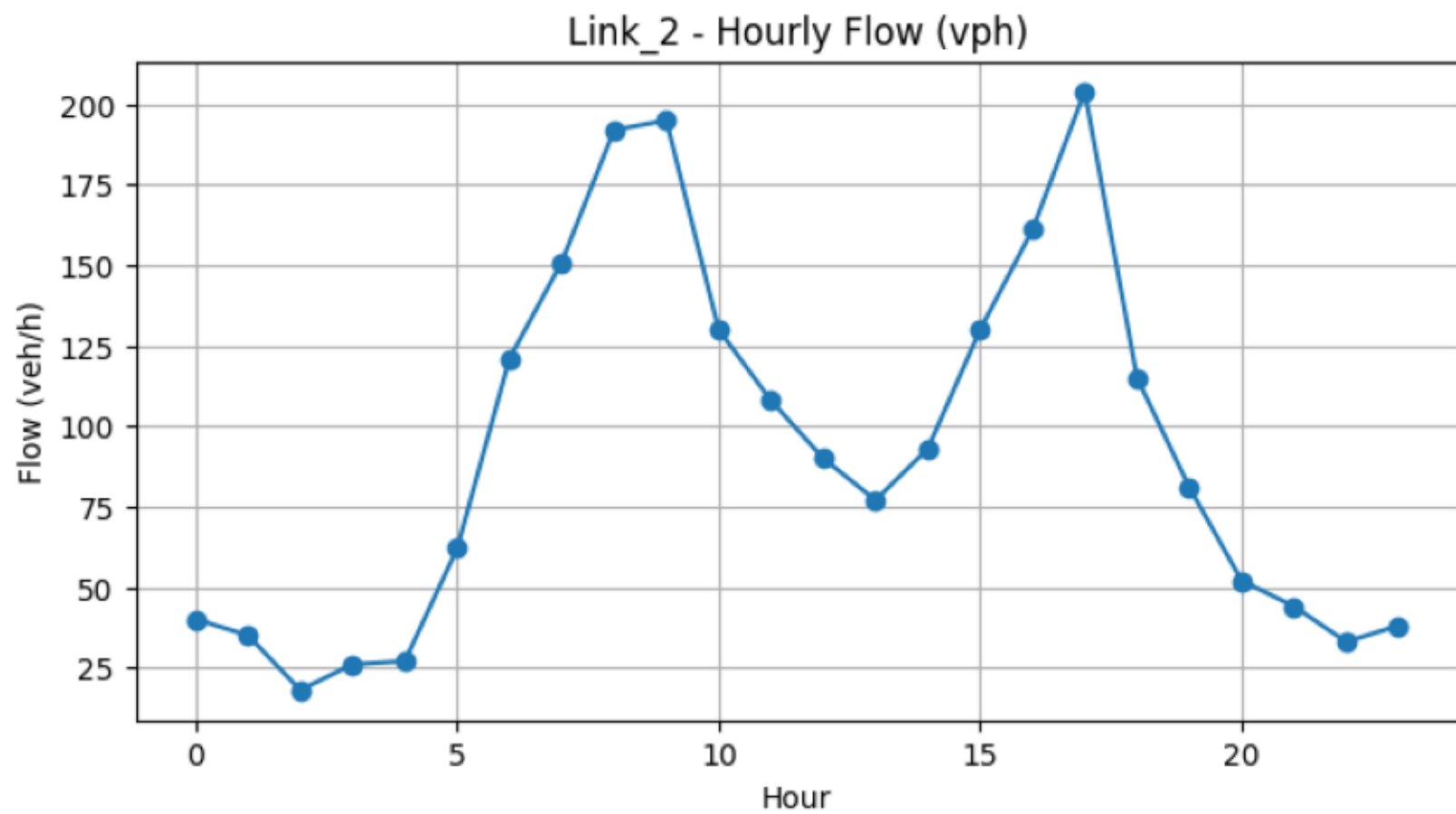
Link_1: peak hour = 8, peak flow = 233 veh/h

Link_2: peak hour = 17, peak flow = 204 veh/h
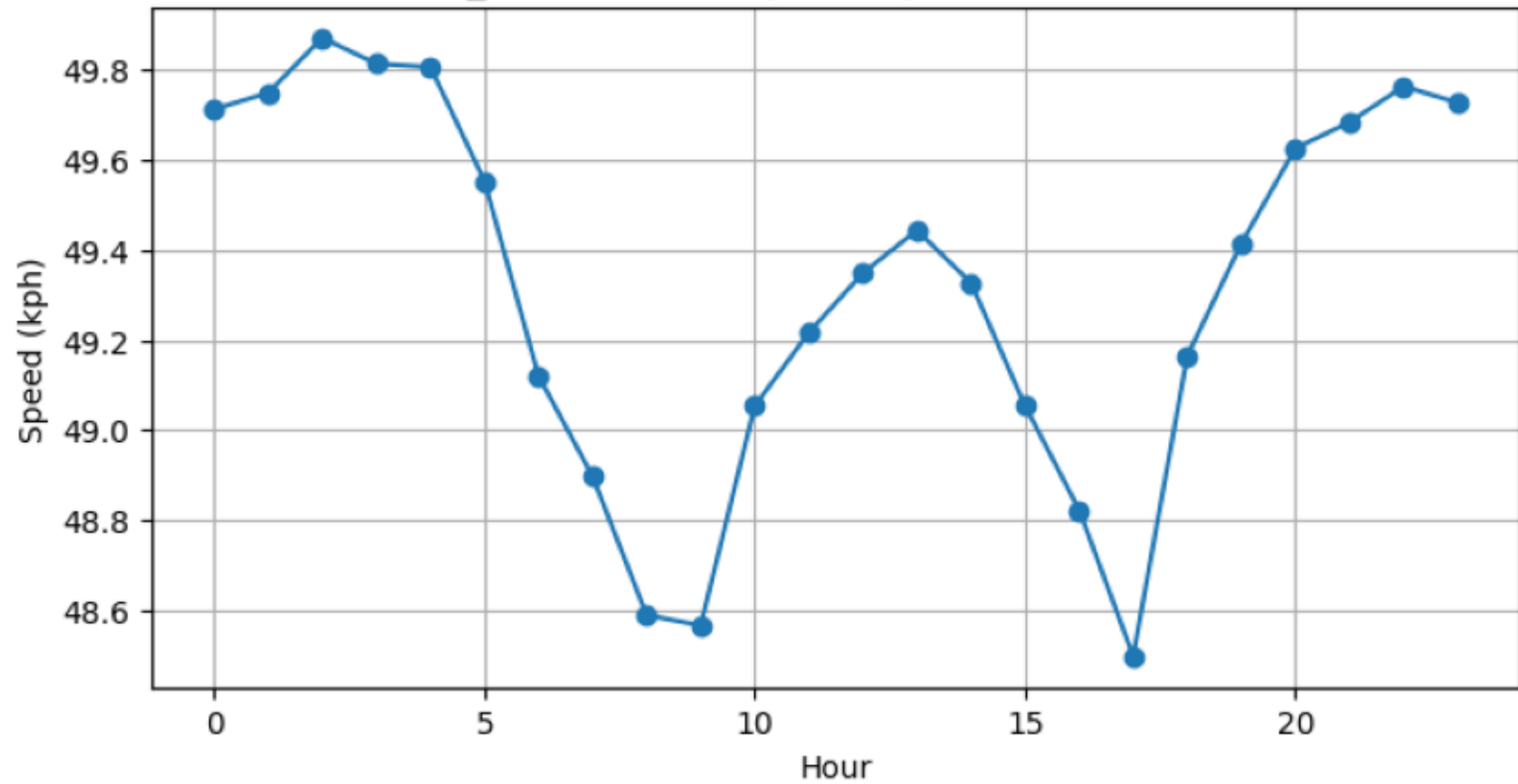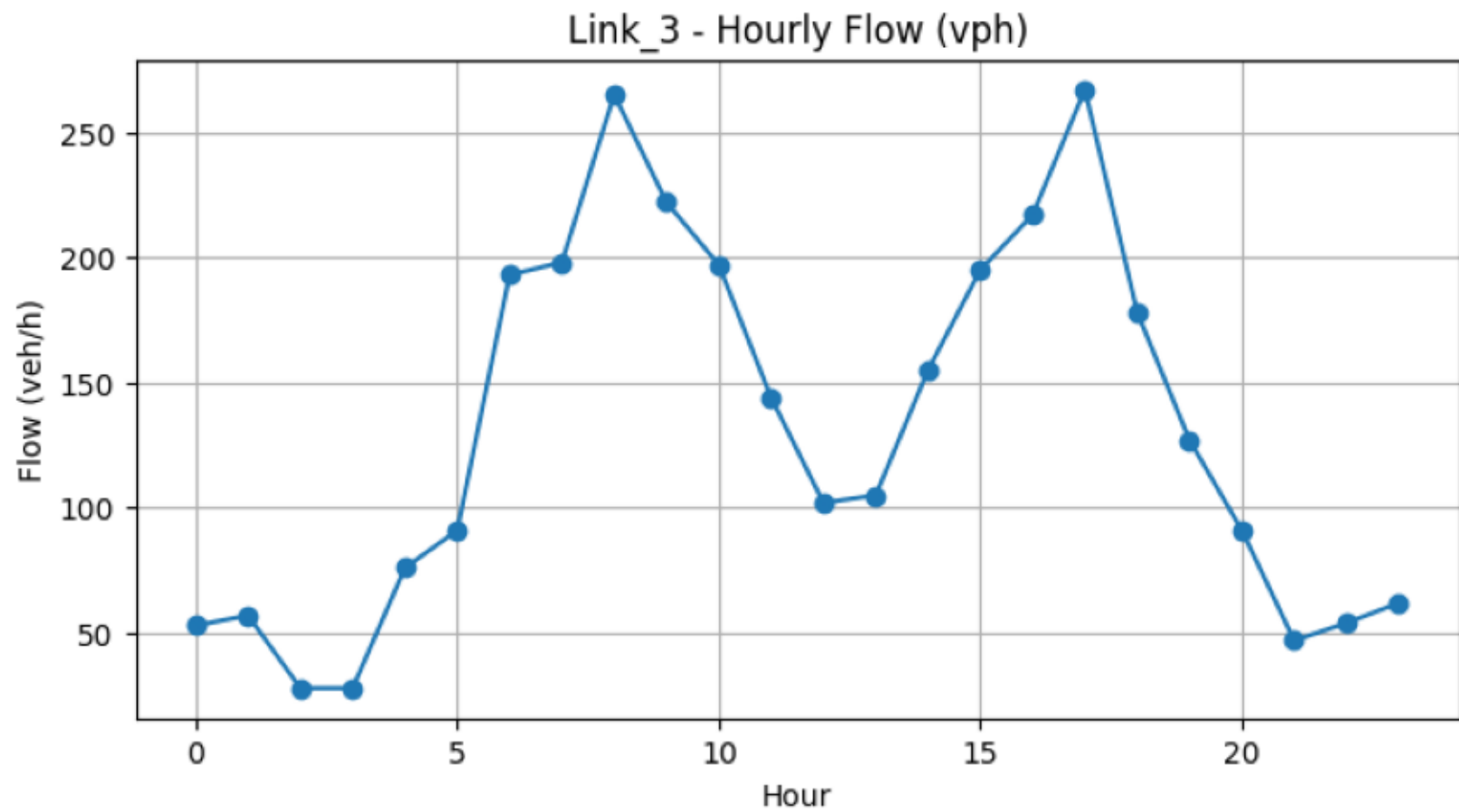
Link_3: peak hour = 17, peak flow = 267 veh/h

Link_1 - Hourly Flow (vph)
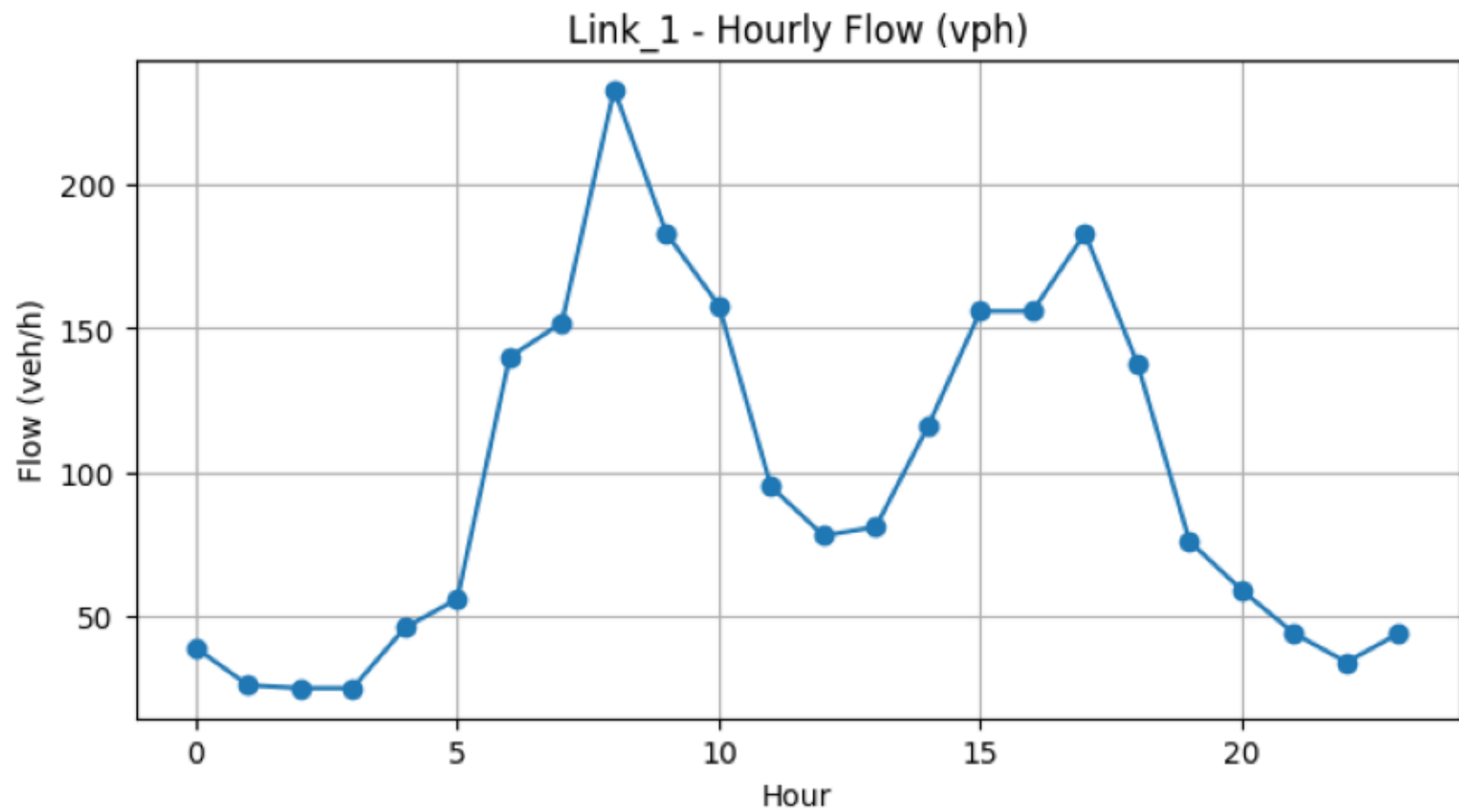
Link_1 - Estimated Speed (kph) via Greenshields

Link_2 - Hourly Flow (vph)

Link_2 - Estimated Speed (kph) via Greenshields

Link_3 - Hourly Flow (vph)

Link_3 - Estimated Speed (kph) via Greenshields

Hour vs v/c (by link)
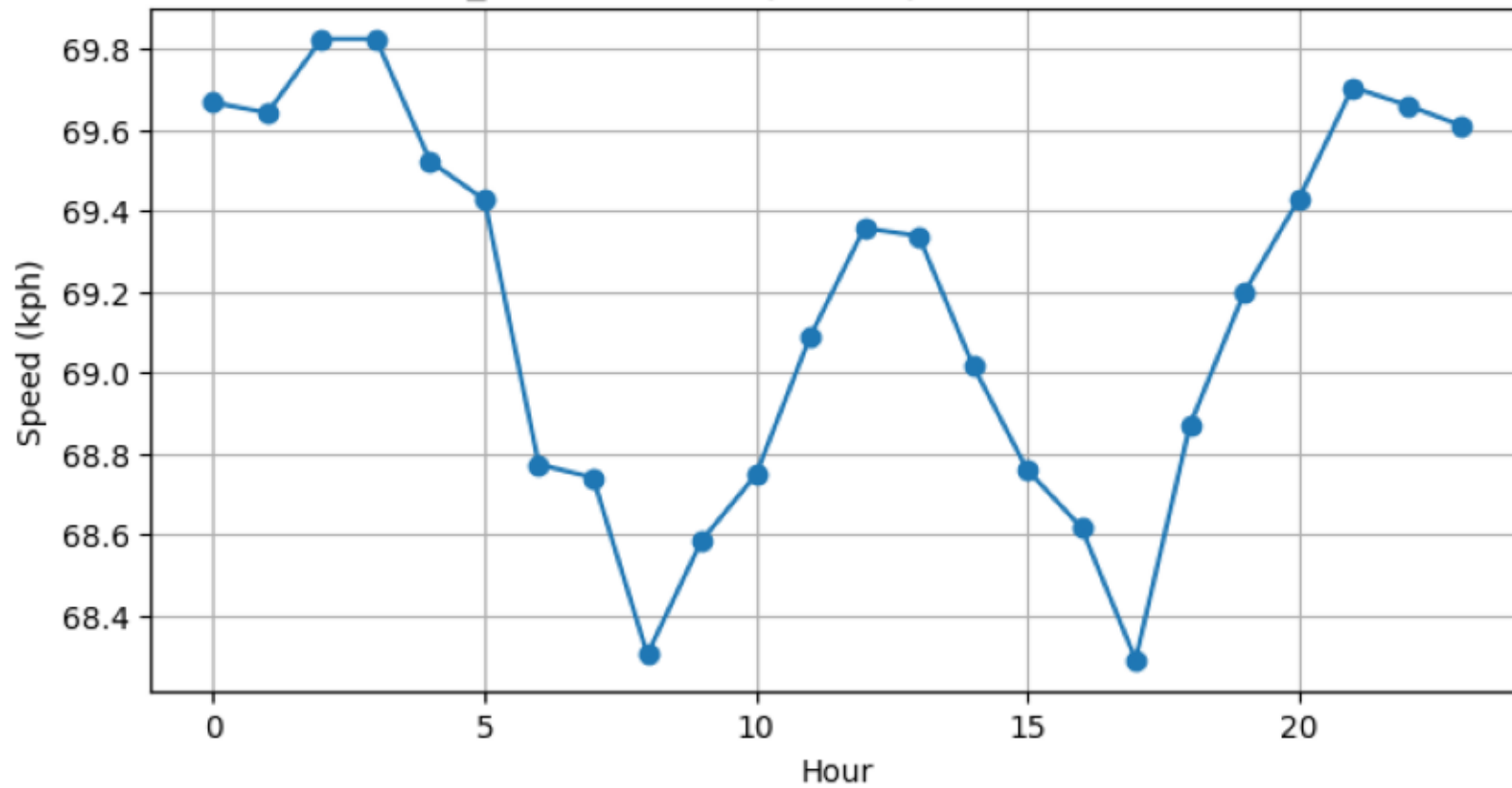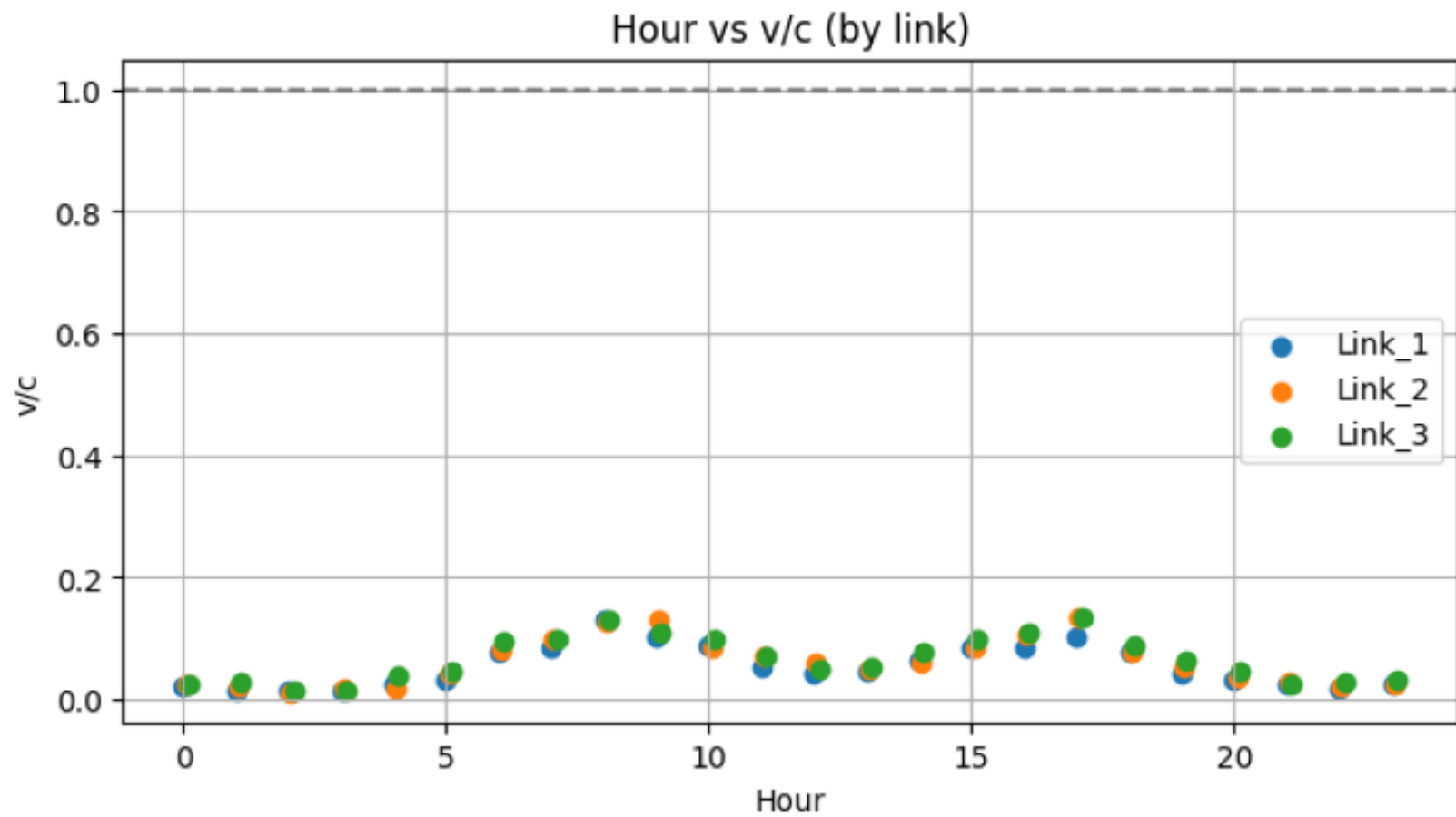
Sample of Analysis Table (first 10 rows)

link	hour	flow_vph	density_veh_per_km	speed_kph	v_by_c	queue_delay_min	travel_time_min	LOS
Link_1	0	39	0.65	59.74	0.02	0.0	1.21	A
Link_1	1	26	0.43	59.83	0.01	0.0	1.20	A
Link_1	2	25	0.42	59.83	0.01	0.0	1.20	A
Link_1	3	25	0.42	59.83	0.01	0.0	1.20	A
Link_1	4	46	0.77	59.69	0.03	0.0	1.21	A
Link_1	5	56	0.94	59.62	0.03	0.0	1.21	A
Link_1	6	140	2.37	59.05	0.08	0.0	1.22	A
Link_1	7	152	2.58	58.97	0.08	0.0	1.22	A
Link_1	8	233	3.99	58.40	0.13	0.0	1.23	A
Link_1	9	183	3.11	58.75	0.10	0.0	1.23	A