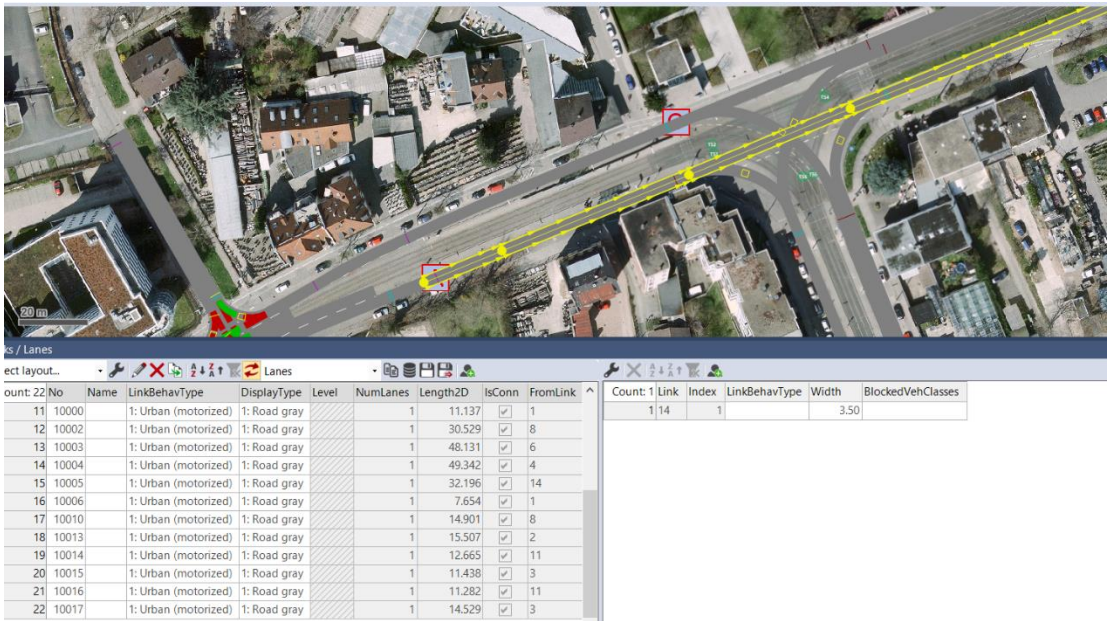Name: Sand Aldagari

ASU ID: 1217023392

CEE 598 Topic: Traffic Simulation Modelling and Applications

Vissim Assignment

In this assignment the file Headquarters 10 in tutorial session was selected to be analyzed. All the information required are listed below:

1- Links

the links are constructed to simulate the lanes. The table below shows the number of links of the location and it consists of 22 links.

No	Name	LinkBehavType	DisplayType	Level	NumLanes	Length2D	IsConn	FromLink
11 10000		1: Urban (motorized)	1: Road gray		1	11.137	✔	1
12 10002		1: Urban (motorized)	1: Road gray		1	30.529	✔	8
13 10003		1: Urban (motorized)	1: Road gray		1	48.131	✔	6
14 10004		1: Urban (motorized)	1: Road gray		1	49.342	✔	4
15 10005		1: Urban (motorized)	1: Road gray		1	32.196	✔	14
16 10006		1: Urban (motorized)	1: Road gray		1	7.654	✔	1
17 10010		1: Urban (motorized)	1: Road gray		1	14.901	✔	8
18 10013		1: Urban (motorized)	1: Road gray		1	15.507	✔	2
19 10014		1: Urban (motorized)	1: Road gray		1	12.665	✔	11
20 10015		1: Urban (motorized)	1: Road gray		1	11.438	✔	3
21 10016		1: Urban (motorized)	1: Road gray		1	11.282	✔	11
22 10017		1: Urban (motorized)	1: Road gray		1	14.529	✔	3

Count: 1 | Link | Index | LinkBehavType | Width | BlockedVehClasses
1 | 14 | 1 | | 3.50 |

2- **Desirable Speed Decision:** it was found that there is no speed decision. So, the speed decision was added for the shown two lanes which is in yellow color. The speed decision for both lanes are 30km/hr.
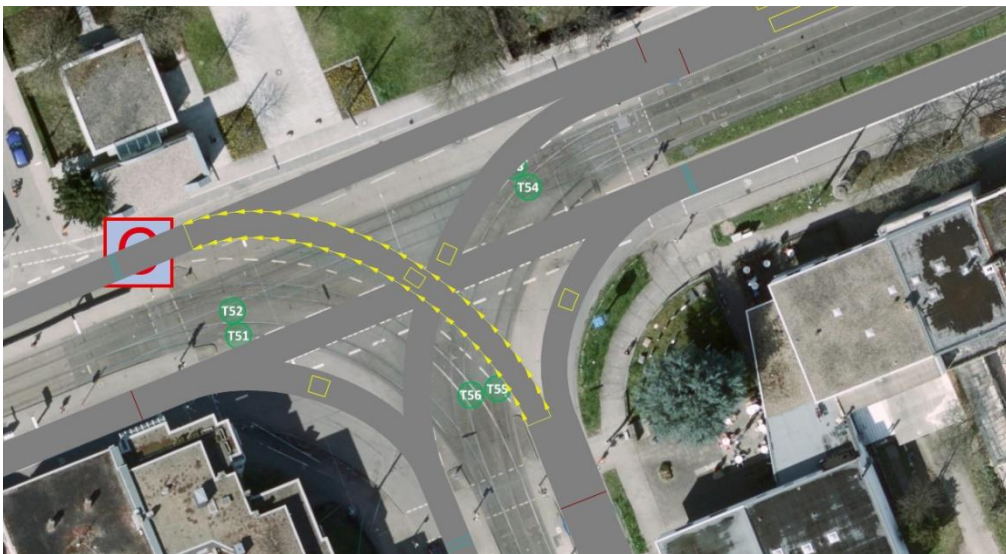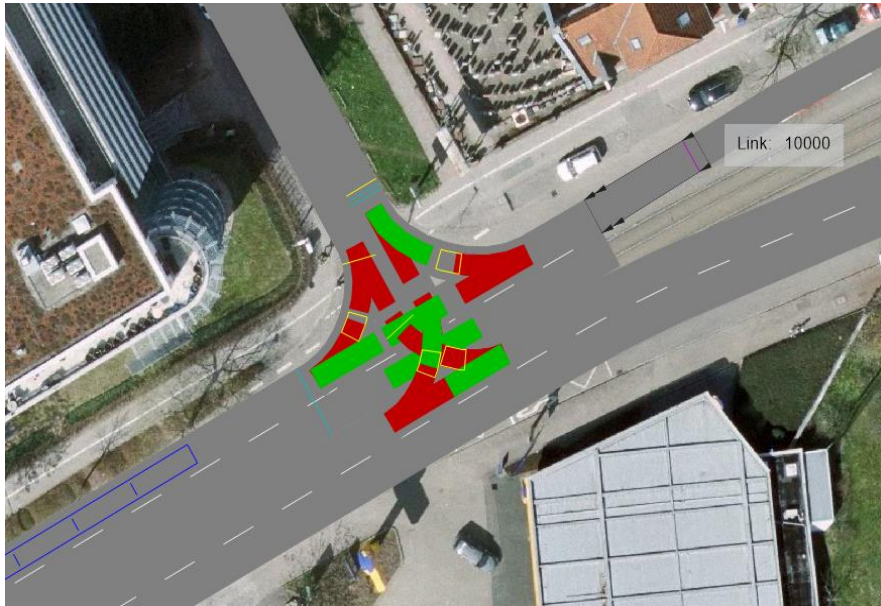
3- Reduced Speed Area:

It can be used to simulate the speed limit. The speed reduced area was added for each lane as shown below in the yellow boxes, and the reduced speed was selected = 12km/hr.
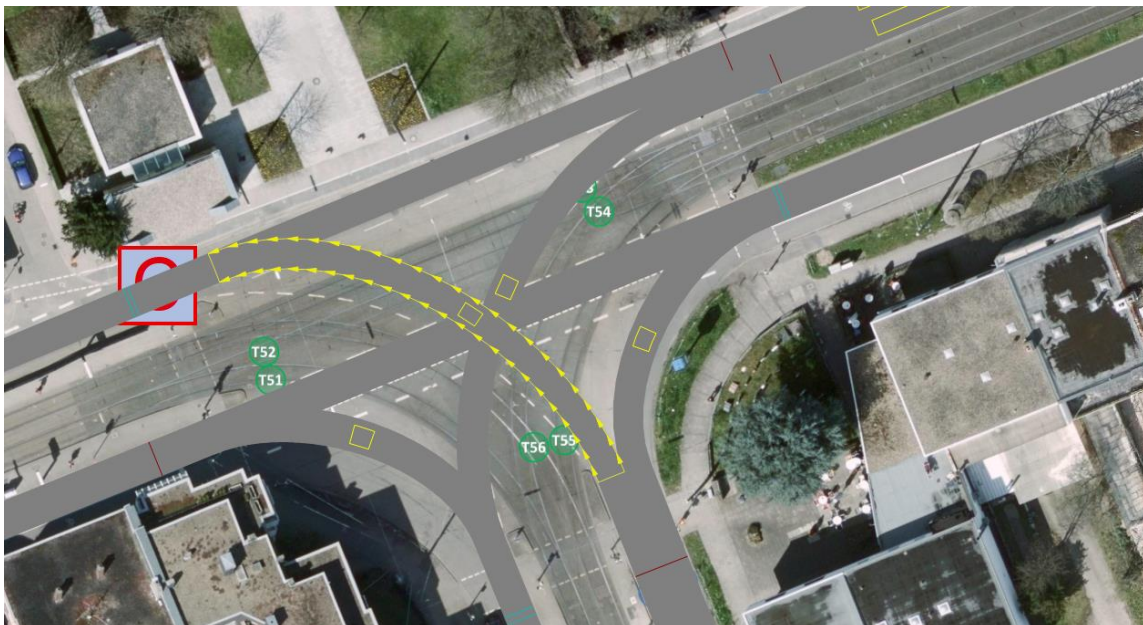

Also, the figure below shows four reduced speed area located at different connectors.

4- Conflict Areas: the figure below shows the conflict area at the three-leg intersection which is the lane in the green color has the right of way.

5- Connectors: the connector link can be added when the driver want to turn and change the direction. As shown below, it shows one connector and in this intersection, we can see four connectors.

6- **Vehicle Inputs**: table below shows the vehicle volumes which are varied between 300 to 600.

Count: 4	N	Name	Link	Volume(0)	VehComp(0)
1	1		1	600.0	1: Default
2	2		8	300.0	1: Default
3	4		3	500.0	1: Default
4	5		11	100.0	2: Cars only

Vehicle Inputs / Vehicle Volumes By Time Interval
Select layout...   Vehicle volumes by

7- **Vehicle Routes**: table below shows all the vehicle routes (6 routes)

Static Vehicle Routing Decisions / Static Vehicle Routes
Select layout...   Static vehicle routes

Count: 6	No	Name	Link	Pos	AllVehTypes	VehClasses	RouteChoiceMeth
1	1		14	4.001	✔		Static
2	2		1	10.731	✔		Static
3	3		8	65.106	✔		Static
4	4		3	20.767	✔		Static
5	5		11	2.913	✔		Static
6	6		1	283.803	✔		Static

- Three paths were selected to be analyzed. After running the simulation, and because the free Vissim version used, I was not be able to collect the required data.