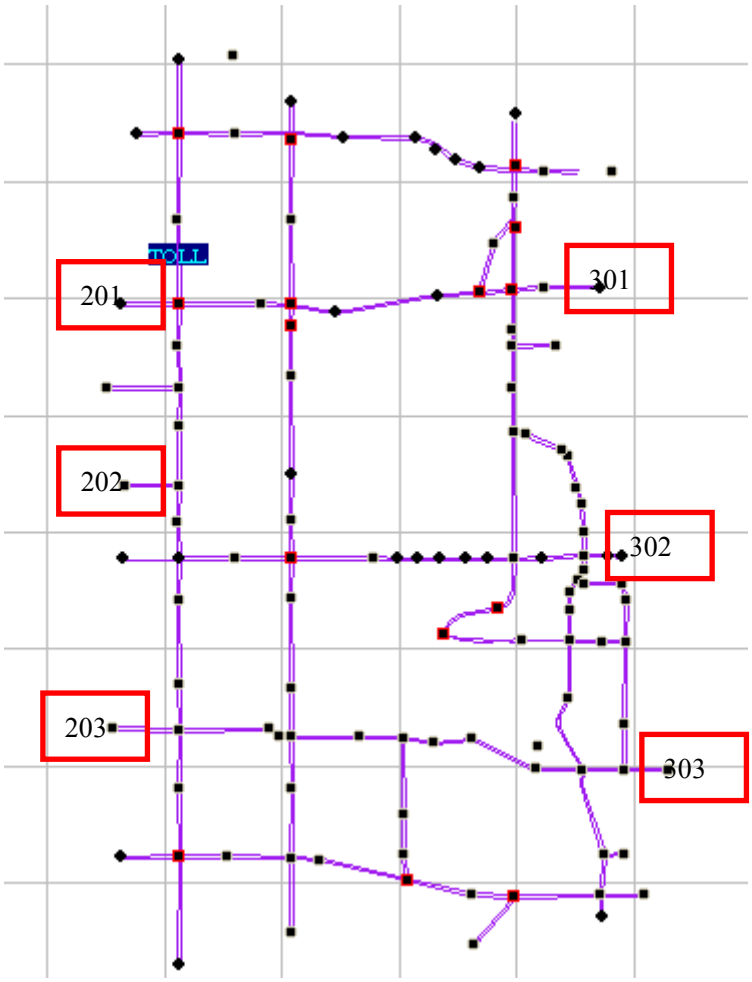
Input:

1. Network: West Jordan (121 nodes, 265 links, length and capacity of link)
2. Home building: 101,102,103
   Location of home building: 201,202,203
   Location of office building: 301,302,303
   Office building: 401,402,403



3. Agent (number of transportation agents: 30)

Building	Transportation agent	Builder	Number of transportation agent
101(home)	1~15	31	15
102(home)	16~25	32	10
103(home)	26~30	33	5
401(office)	1~10, 16~19, 26	34	15
402(office)	11~13, 20~23, 27, 28	35	9
403(office)	14, 15, 24, 25, 29, 30	36	6

Output:

1. Optimal solution:

Home Building	Home Location	Agent
101	201	1~15, 31
102	202	16~25, 32
103	203	26~30, 33

Office Location	Office building	Agent
301	401	1~10, 16~19, 26, 34
302	402	11~13, 20~23, 27, 28, 35
303	403	14, 15, 24, 25, 29, 30, 36

2. **Solving time** by branch and bound algorithm: about 10 minutes, not the exact time
   Solving directly: about 5 seconds