MATH-600, Spring 2013 Project 1: Group specific question Group 1: Evanthia, Flavio, Jonas, Rami

During the simulation period there is some construction work going on. Due to which few roads have to be closed. They are marked with black arrow. The traffic originating on these roads have to be redistributed to other roads connected to the block. Please analyse the effect of this on the level of service of surrounding intersections and on the network in general.

[Due to labour and equipment constraints, there are three possibilities a) all links closed simultaneously b) link 22-48 closed for first half and then 53-57 closed for second c) the other way around. What strategy would you propose and why?]



MATH-600, Spring 2013 Project 1: Group specific question Group 2: Florian, Hannah, Julien

During the simulation period there is some construction work going on in the intersection marked black. This reduces the service rate of the links served by this intersection by 75%. Please analyse the effect of this on the level of service of the links connected to the intersection and on the network in general.



MATH-600, Spring 2013 Project 1: Group specific question Group 3: Marija, Tomas, Rahul

At the start of simulation, an accident occurs at the intersection shown in black. This results in 75% reduction in the service rate of this intersection. Moreover, there is a construction crew working on link 43 and 67. This will increase the travel time on the links by 100%. Please analyse the effect of these disruptions on the level of service of the surrounding links/intersections and on the network in general.

[Do you think it is a good idea to schedule the construction work simultaneously on both link? Or on 1 link for the first half of the simulation and other in second? If so, then which link should we close first?]



MATH-600, Spring 2013 Project 1: Group specific question Group 4: Alberto, Fränz, Paul

During the simulation period there is some construction work going on in the intersections marked black. This reduces the service rate of the links served by this intersection by 75%. Please analyse the effect of this on the level of service of the links connected to the intersection and on the network in general.

[Due to labour and equipment constraints, there are three possibilities a) work at both intersections simultaneously b) work on Northern intersection in first half and then move to the Southern c) the other way around. What strategy would you propose?]



MATH-600, Spring 2013 Project 1: Group specific question Group 5: Marco, Seyedeh, Shima, Sofia

The city of Sioux Fall is planning on building new commercial complex and apartment houses as indicated in the black. It is expected that this may result in an increase of the traffic in the adjacent roads by 100%. Please analyse the effect of this on the level of service of the links connected to the intersection and on the network in general. What are your suggestions to the city?

