Assumptions, dependencies and constraints

D1: A person (end user) knows the traffic rules.

D2: A person (end user) knows that he can notify the authority if there is a traffic violation.

D3: A person (end user) has a phone with a camera, internet connection and GPS, he knows SafeStreets app and he has SafeStreets app on his phone.

D4: A user of SafeStreets is identified by the application.

D5: It is possible to verify that an authority is really such (through a governmental code for example).

D6: An authority have a device on which there is SafeStreets software.

D7: The authority device has an internet connection and GPS active.

D8: A municipality has data about accidents occurred in its jurisdiction stored.

D9: It is possible to verify that a municipality is really such (through a governmental code for example).

D10: A municipality has a device with SafeStreets software.

D11: There is internet access around the place where violation occurred.

D12: An authority user is able to reach the position of a violations when notified.

D13: Users are fair with each other.

D14: Users send data about a violation from the position where the violation occurred.

D15: Users send data about a violation when the violation occurred.

All traffic violations created by end users are sent to SafeStreets through internet connection. The position of a traffic violation is taken automatically from the GPS of the end user’s smartphone. Date and time are taken automatically, too. The notifications received by the authorities are sent through internet connection. Authorities need GPS because they receive notifications only if they are near a new traffic violation. Authorities and Municipality must demonstrate their role during the registration, maybe trough a governmental code, in order to avoid that common citizens register themselves as authority or municipality. Accidents data, unsafe areas and suggested interventions are sent through internet connection. End users must have a phone with a camera because they have to take a picture of the license plate of the car that commits the traffic violation. A published traffic violation report cannot be removed. A traffic violation report is shown to authorities in an anonymous way. When an end user inserts data regarding a traffic violation he has to choose a type of traffic violation among different predefined types and then he can give a description of the situation.