Question 1A & 1B: please refer to file answer\_1a\_1b.txt on result folder.

Question 2:

As my understanding, the shapefile indicates streets in a specific area. This layer is in a combination with the others layers to create the network package. And the attribute table is included these fields as my knowledge below:

|  |  |
| --- | --- |
| ***Field*** | ***Meaning*** |
| ID | Identify number |
| Prefix | Prefix of street name |
| StreetName | Name of street |
| StreetType | Type of street |
| Suffix | Suffix of street name |
| MapZone | Number of zone that street belongs to |
| AR1From | Unknown the meaning of this field |
| AR1To | Unknown the meaning of this field |
| AR2From | Unknown the meaning of this field |
| AR2To | Unknown the meaning of this field |
| FromNode | ID of node at start way of link |
| ToNode | ID of node at end way of link |
| FromX | Longitude at start node |
| FromY | Latitude at start node |
| ToX | Longitude at end node |
| ToY | Latitude at end node |
| Speed | Speed limit of link |
| Direction | Unknown the meaning of this field |
| \_Haz | Unknown the meaning of this field |
| Art | Unknown the meaning of this field |
| Metro | Unknown the meaning of this field |
| Class | Unknown the meaning of this field |
| Other | Unknown the meaning of this field |
| Haz | Unknown the meaning of this field |
| Nowalk | Unknown the meaning of this field |

And there are 2 ways (as my knowledge) to change the attribute of shapefile.

* Edit directly on shapefile’s attributes by using ArcMap, QGIS or else
* Develop function to change attribute value in soft or independence from outside.