Steps for Spatial Network Analysis to facilitate Municipal Operations

1. •Raw data is available in the form of excel spreadsheets. Prepare the data as csv file and observe how to use them and edit if necessary.
2. •Create an Address Locator for streets in ArcGIS Pro.
3. •Locate the address streets using "Geocode Addresses" tool.
4. •Fix the unmatched addresses.
5. •Use Linear Referencing toolset to locate healthcare facility points along the street route.
6. •Generalize the street data using "Multi-part to single-part" tool.
7. •Perform queries to extract ambulance facilities from the data.
8. •Add fields like SpeedLimit, Distance and DriveTime to street attribute table.
9. •Use field calculator, attribute join, spatial join and intersect tools to add the details in the previously added 3 fields.
10. •Build topology to ensure street connectivity with no gaps, no intersects and no overlaps within the road network.
11. •Create a network feature dataset.
12. •Use the "Network Analyst" workflow in ArcGIS Pro and create new layer types for "Closest Facility" and "Service Area".
13. •Provide the required appropriate inputs and run both of the analysis.
14. •After results are obtained, change the symbology to convey the result appropriately.
15. •At last, make a map layout and add appropriate map elements like title, scale, north arrow and legend.