



Geographic Information Systems (GIS)

Mapping Minneapolis Fire Stations

Name:

Section:

Directions: Follow the directions below to create a map of Fire Stations in Minneapolis and perform some basic analysis to propose a location for a new Fire Station to fill gaps in Minneapolis' fire coverage

Step 1: Download your Data

1. Navigate to <http://opendata.arcgis.com/> and search for **Fire Stations in Minneapolis, Minnesota** in the Search menu.
2. Find and download the Minneapolis Fire Stations Data put together by the City of Minneapolis as a Spreadsheet.
3. Also download the **Fire Stations Areas for Minneapolis, Minnesota** as a shapefile

Step 2: Upload Your Data

1. Upload and configure you Fire Station Data. Configure the pop-ups so they easily display the data
2. Upload the Fire Stations Area and change the format so that all of the fire stations show up as different colors.

Step 3: Drive Time Analysis

1. In the contents bar left-click on the **Analysis** button to open up the analysis menu
2. In the **Perform Analysis** side menu select **Use Proximity** option to **Create Drive Time Areas**
3. The Minneapolis Fire Department aims for a 5 minute response time so make your **Drive Measure 5** minutes
4. To measure the coverage of this within the 5 minutes at the busiest time change the measure to calculate drive times during afternoon rush hour (around 5:00 on any day M-F)
5. Once all the setting are done run a quick check on the credits (should be 9.5) and then run credits



Step 4: Proposing a New Fire Station

1. Analyze the newly created drive time layer and Create a Map Note of a proposed new fire station and drop a pin in the proposed site
2. Do a drive time analysis of the new fire station and then edit your map note to create a proposed service area for your new Fire Station.
 - a. Use the measure feature on the top bar of the main map to figure out the area of the new proposed service area.
Note: Service areas need to be over 2 square miles
3. Defend your fire station placement on the back of this paper with at least 3 pieces of geographic data
Hint: You might need to do a Data Enrichment analysis of your proposed service area



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Proposing a new Fire Station

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Score: ____/5

Directions: Use the layers created in the Mapping Minneapolis Fire Stations Activity to defend your decision on the placement for a new fire station and service area. Each defense needs some sort of geographic evidence or data to support your decision.

Defense 1:

Defense 2:

Defense 3: