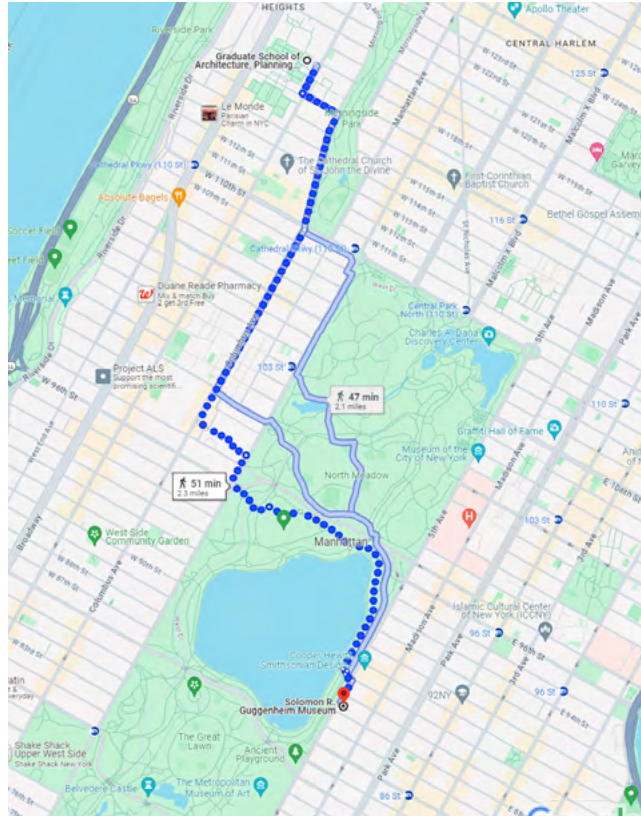


# Is the Suggested Route Truly the Best Option?

Google Maps typically suggests the quickest and most direct route for walkers, but is this path truly the best? For instance, is it safe? To verify, I conducted an experiment.

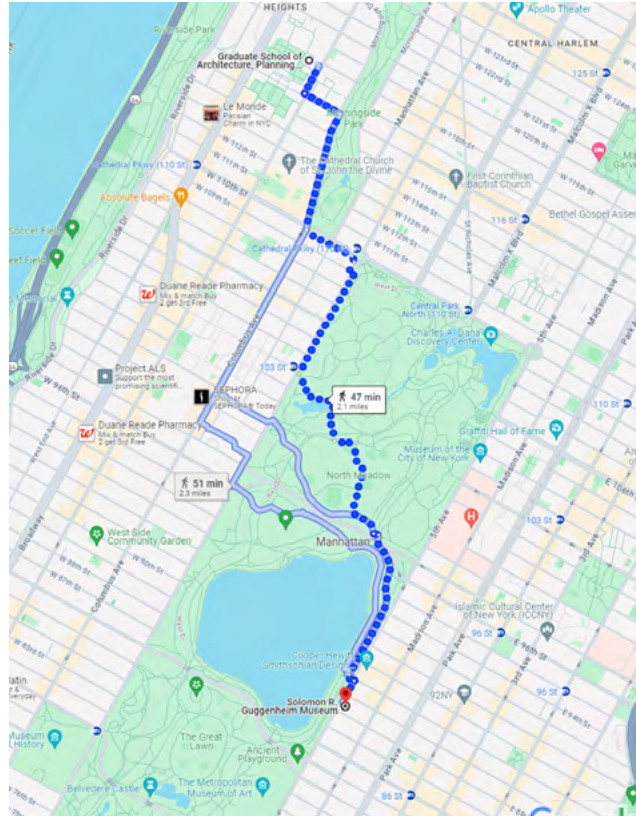
From: Avery Hall, Columbia University  
Distination: Solomon R. Guggenheim Museum  
Data & Time: July 24, 2024 at 10:00 a.m.



Option 1

Distance: 2.1mi  
Time: 51m

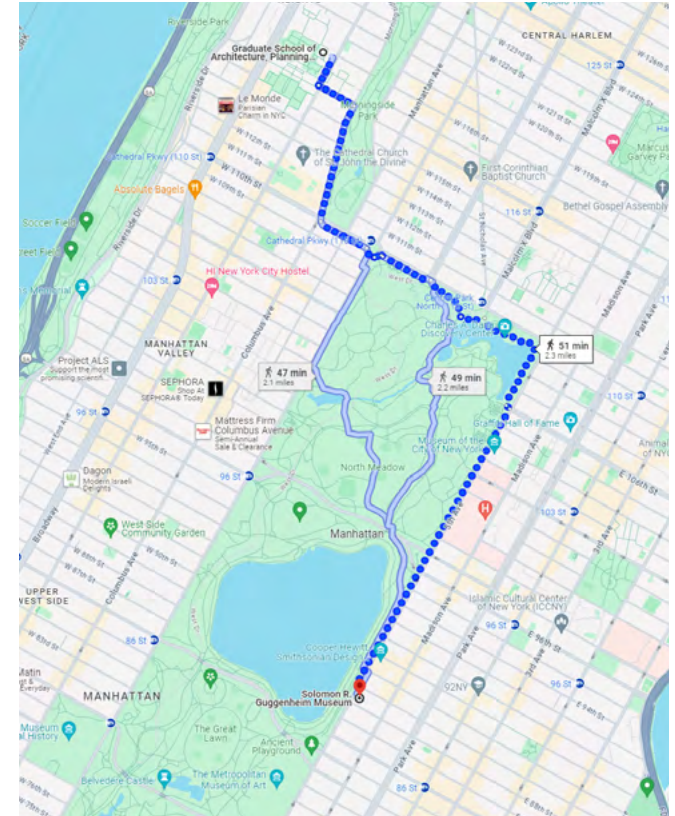
1. Travel via Columbus Ave until W 97th St.
2. Turn SE thru 97th St Transverse until 5th Ave.
3. Turn southwest to your destination.



Option 2 (Google Recommended)

Distance: 2.1mi  
Time: 47m

1. Travel via W 110th St until Central Park W.
2. Turn SW until 103 St Sta.
3. Walk thru Central Park to the destination.



Option 3

Distance: 2.3mi  
Time: 51m

1. Travel via W 110th St until Duke Ellington Circle.
2. Turn SW until the destination.

# Consideration: Num of Criminal Incidents

What it can tell me: Safety of the routes

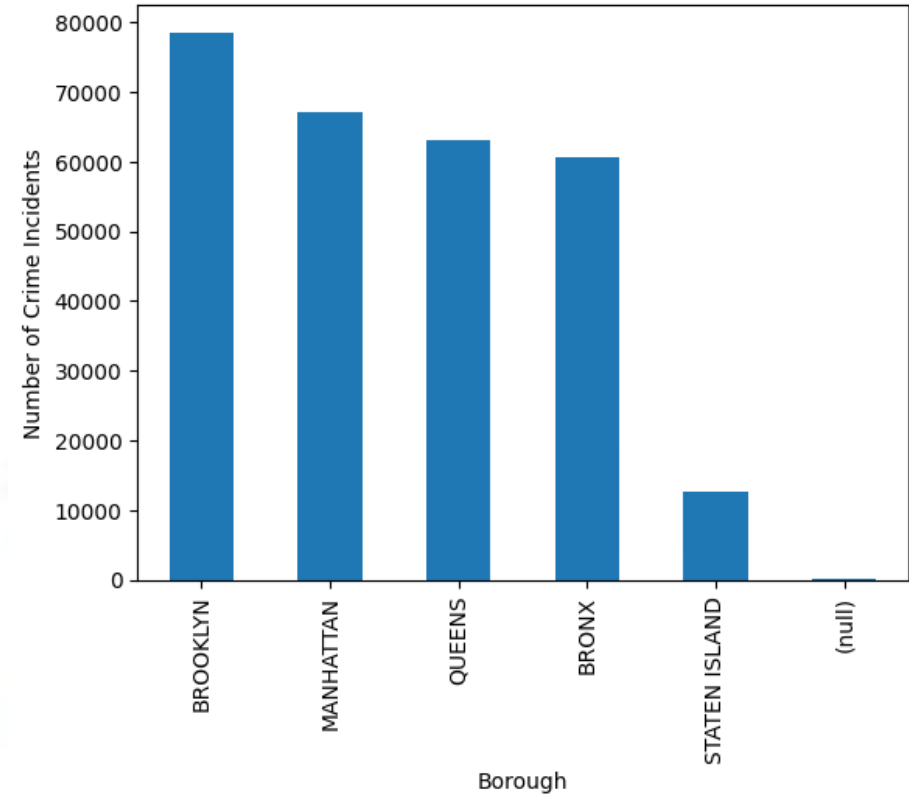
Where I got it: NYC OpenData, [play.placemark.io](https://play.placemark.io)

1. Locate the crime location dataset for NYC for the first half of 2024 on NYC OpenData.
2. Visualize the Number of Crime Incidents in New York City

Location of Crime Incidents in New York City



Number of Crime Incidents in each Borough

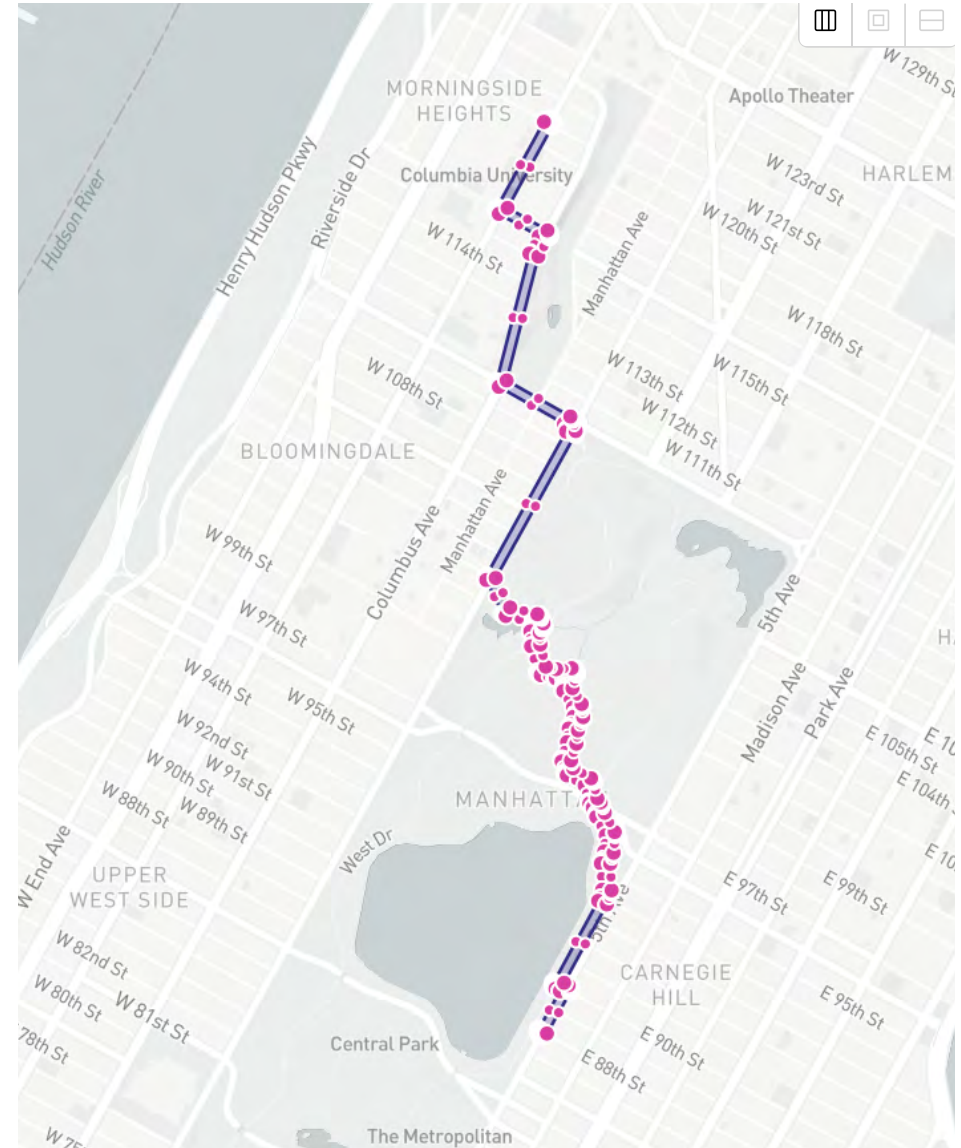
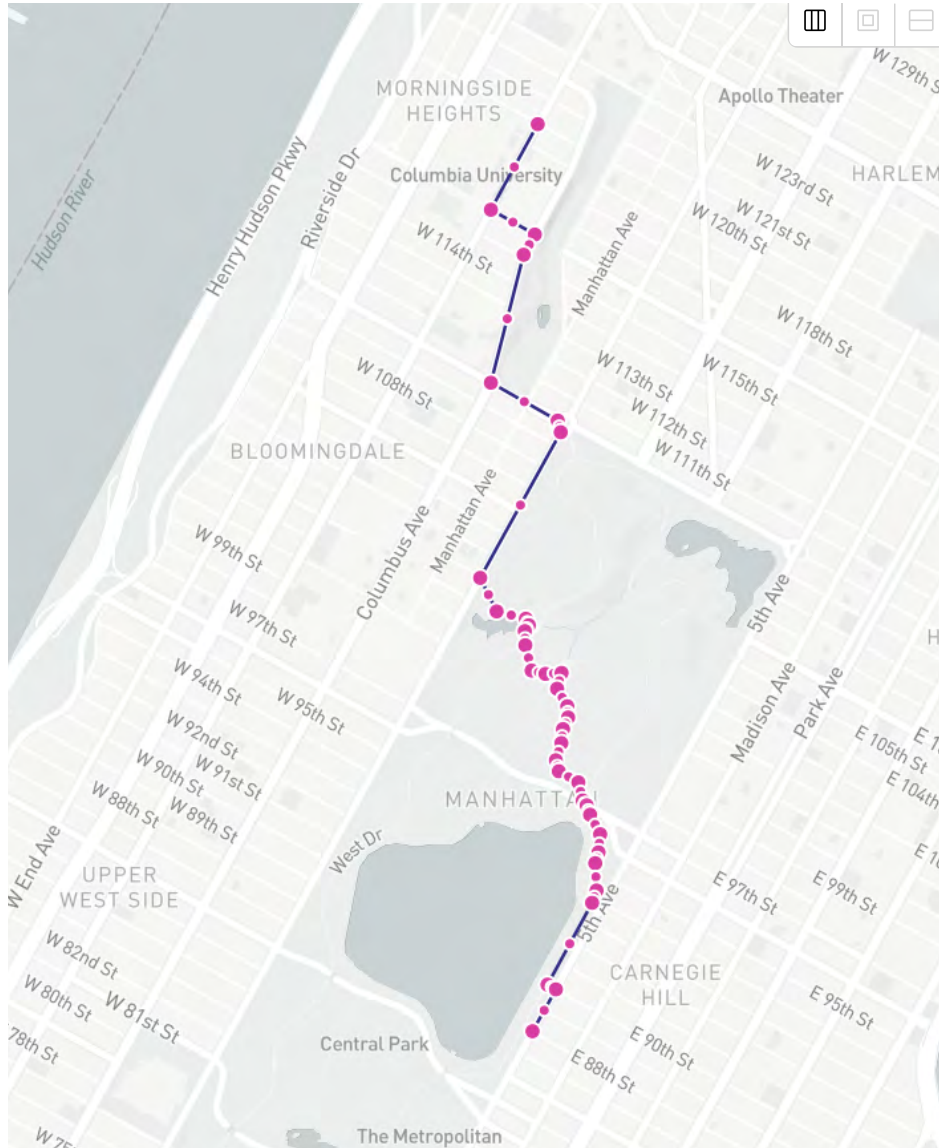




# Consideration: Num of Criminal Incidents

Advantageous  
Option

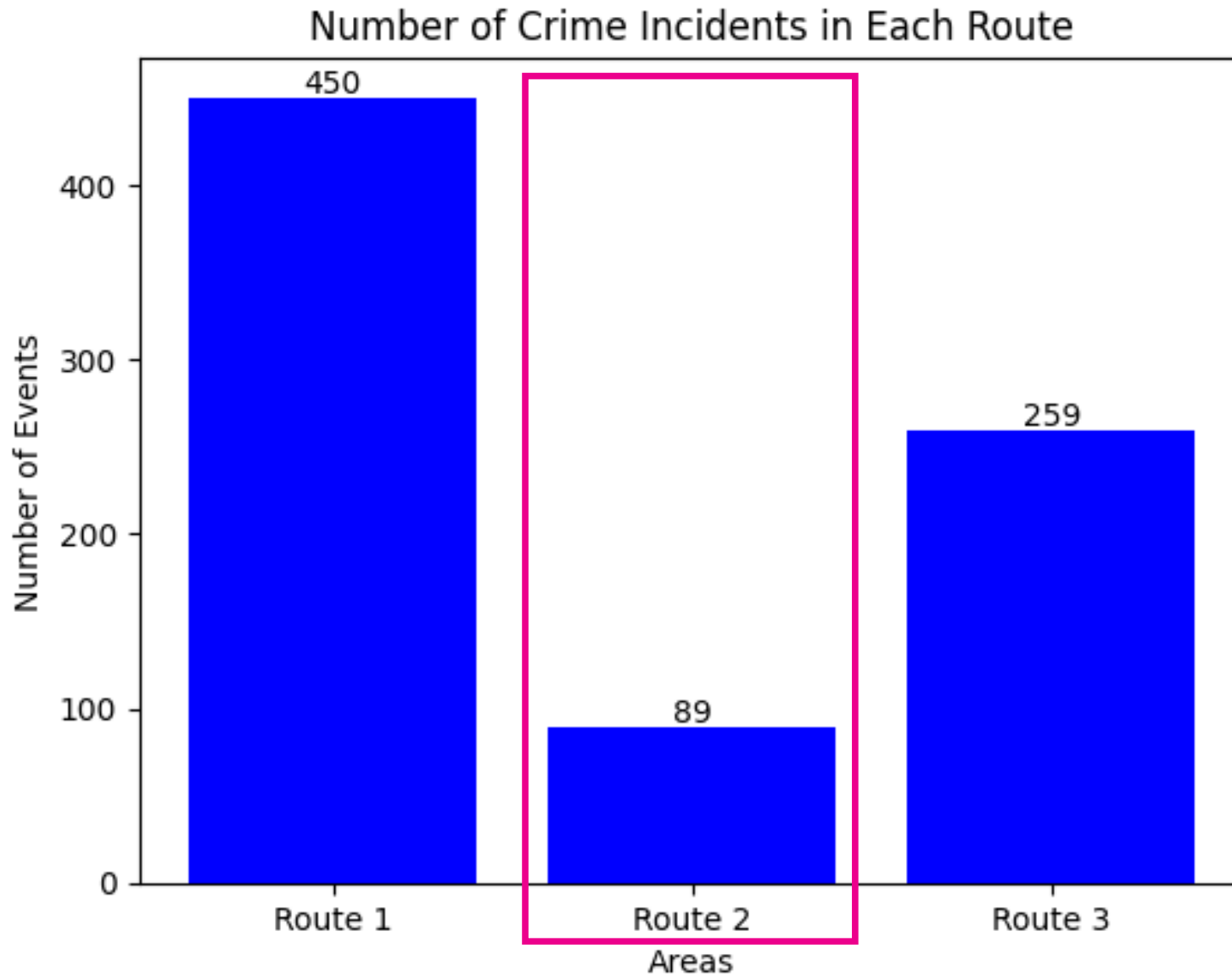
1. Use play.placemark.io to delineate the three walking path on a map.
2. Offset the route to create a 50 ft wide area.
3. Save the areas as GeoJSON files.



## Consideration: Num of Criminal Incidents

Advantageous  
Option

1. Use geojson files as filters to delimit the scope of calculations.
2. Calculate the number of crime incidents within each of the three walking path.

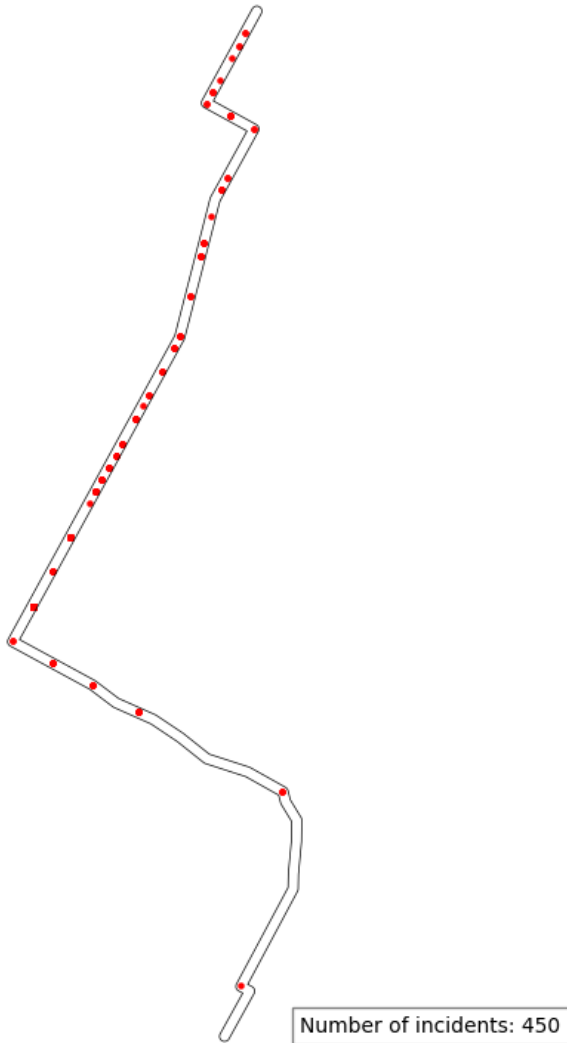


# Consideration: Num of Criminal Incidents

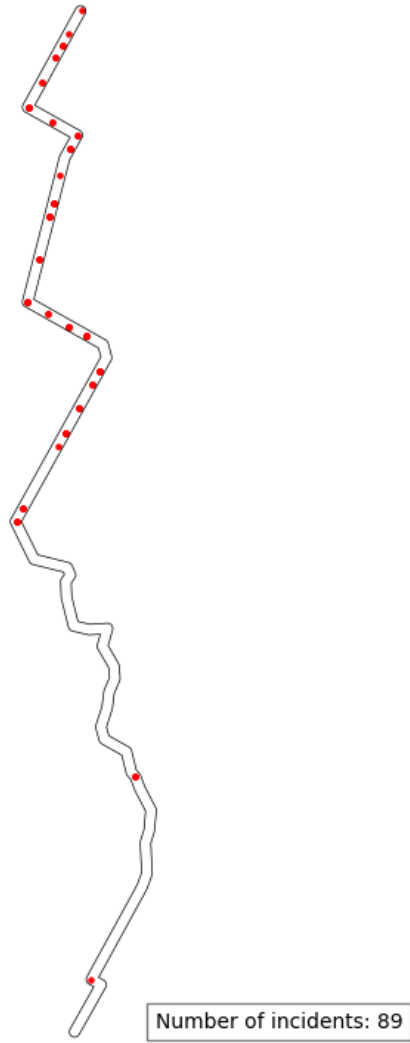
1. Visualize each walking path on the map and locate the crime incidents within the path (scope: 50 feet)
2. Note: Some of the crime incidents occurred in the same location.

Advantageous  
Option

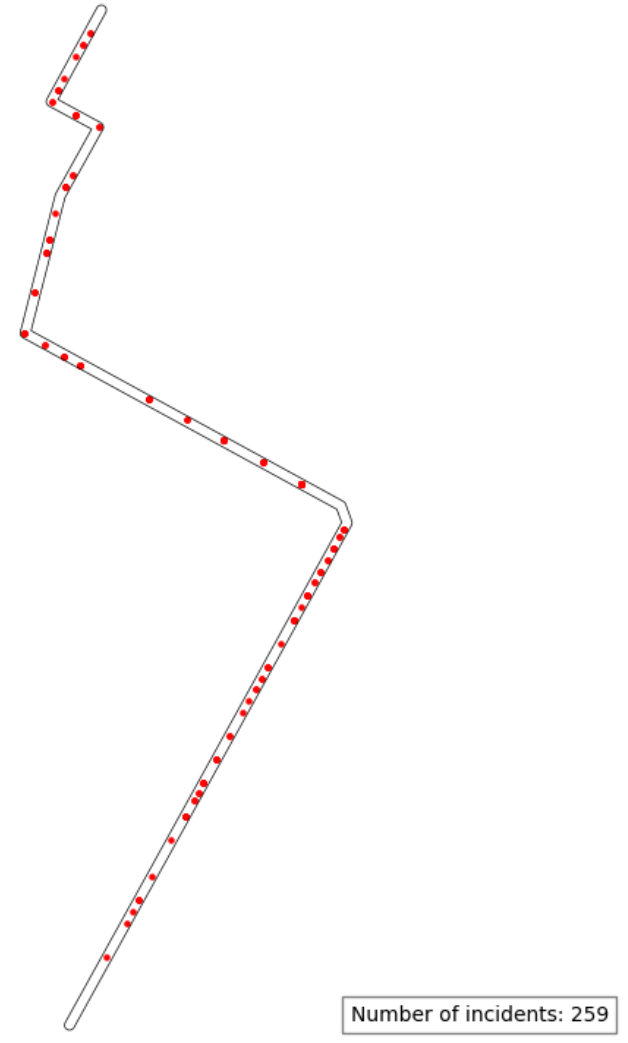
Crime Incidents in Route 1



Crime Incidents in Route 2



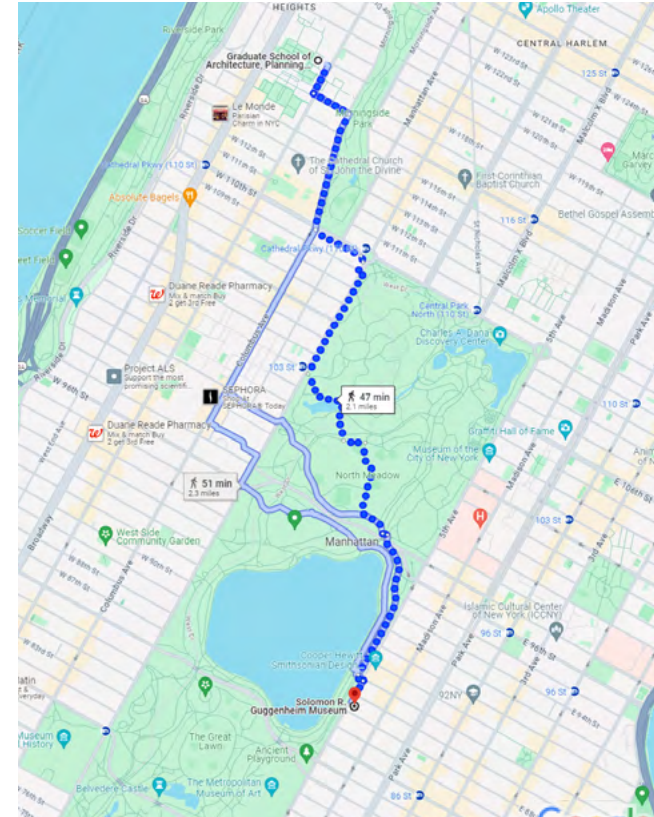
Crime Incidents in Route 3



# Consideration: Num of Criminal Incidents

## Conclusion:

The walking path/route recommended by Google Maps is not only the fastest, shortest, but also the safest.



## Option 2 (Google Recommended)

Distance: 2.1 mi

Time: 47m

1. Travel via W 110th St until Central Park W.
2. Turn SW until 103 St Sta.
3. Walk thru Central Park to the destination.