Suitability maps display the suitability of each point on a geographic map for a specific purpose, such as agriculture, urban development, environmental conservation, or industrial projects. These maps use the Logic Scoring of Preference (LSP) to integrate multiple criteria and represent the outcomes spatially. Such techniques can be invaluable in planning and decision-making.

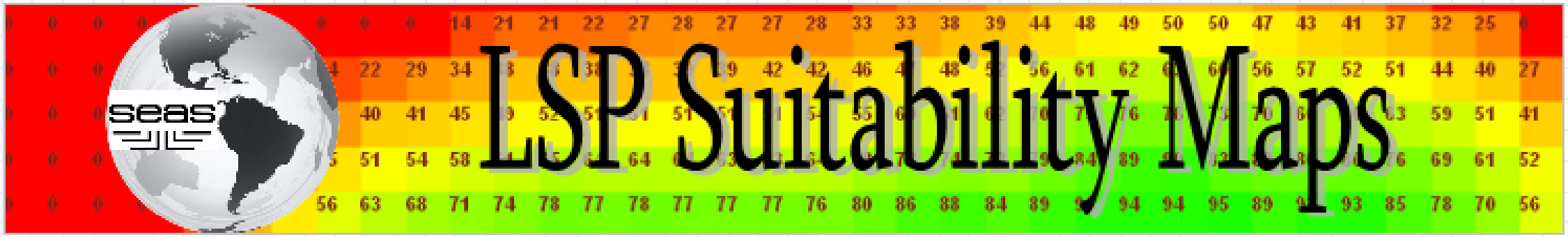
Coding of suitability

- Suitability is a value in the range from completely unsuitable to completely suitable
- Numeric coding is in the range from 0 to 100%
  - 0 = unsuitable
  - 100 = perfectly suitable
- Color coding is in the range from red to green (the traffic light style)
  - Red = unsuitable
  - Green = perfectly suitable

Suitability maps based on points of interest

- Define a set of desired points of interest
- Select POIs that are mandatory (must be close to the analyzed point on a suitability map)
- Select POIs that are optional (desirable but not mandatory; such POIs can be too far or unavailable)
- Define the proximity criterion for each type of POI (e.g. the criterion for the distance from a school/bank/pharmacy/park)
- Compute the overall suitability in each point on a geographic map using a mandatory/optional aggregator (partial absorption)

Step 1: Select the location and the map size



Please enter the address of a location of interest (e.g. 1234 Moraga St. 94122, United States)

New York | Map size: 2 mi | Get Map

2 mi
1.5 mi
1 mi
0.5 mi

For best performance when creating suitability maps, please use Google's Chro er

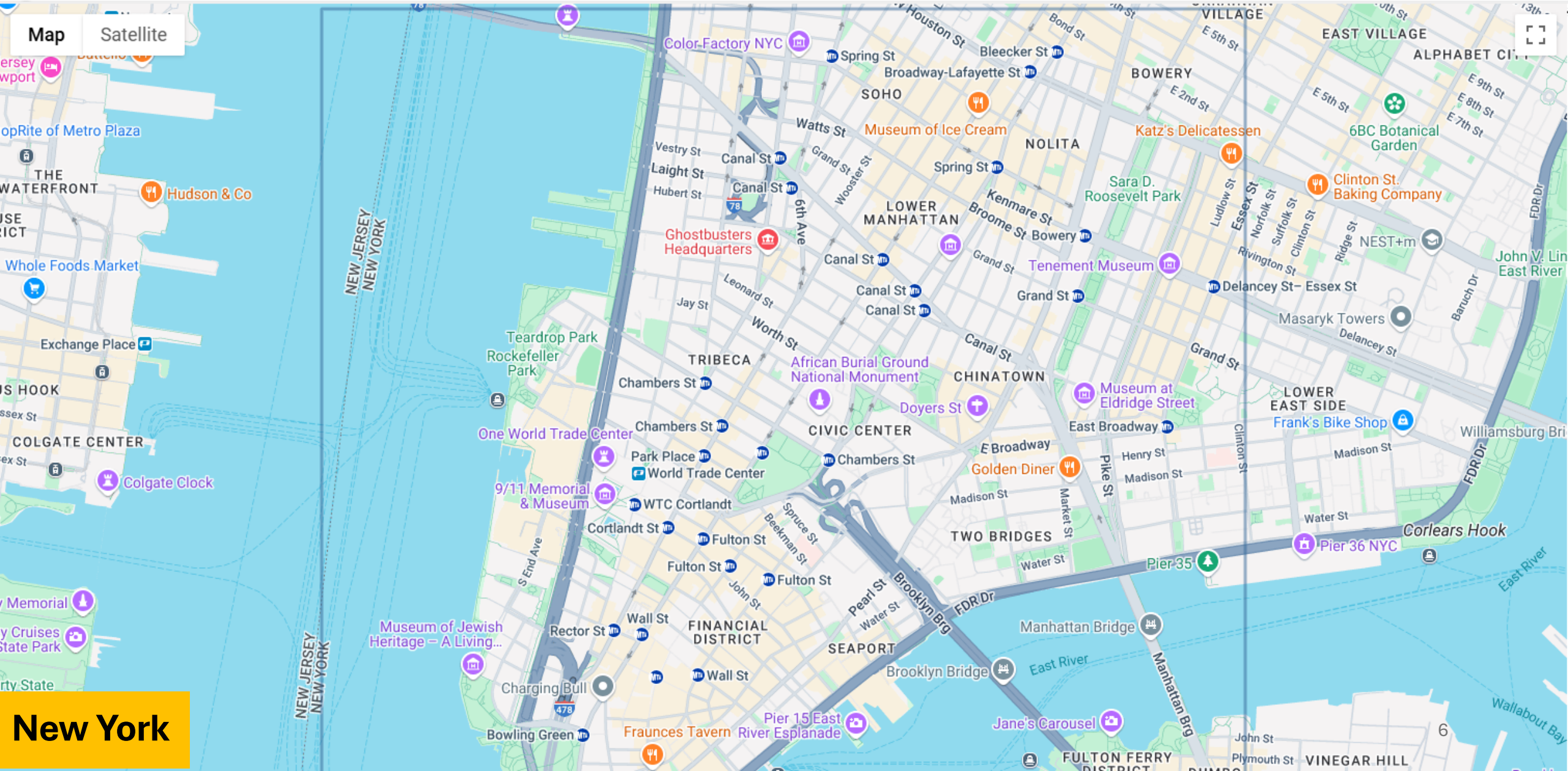
View Instructions

Legal Notice

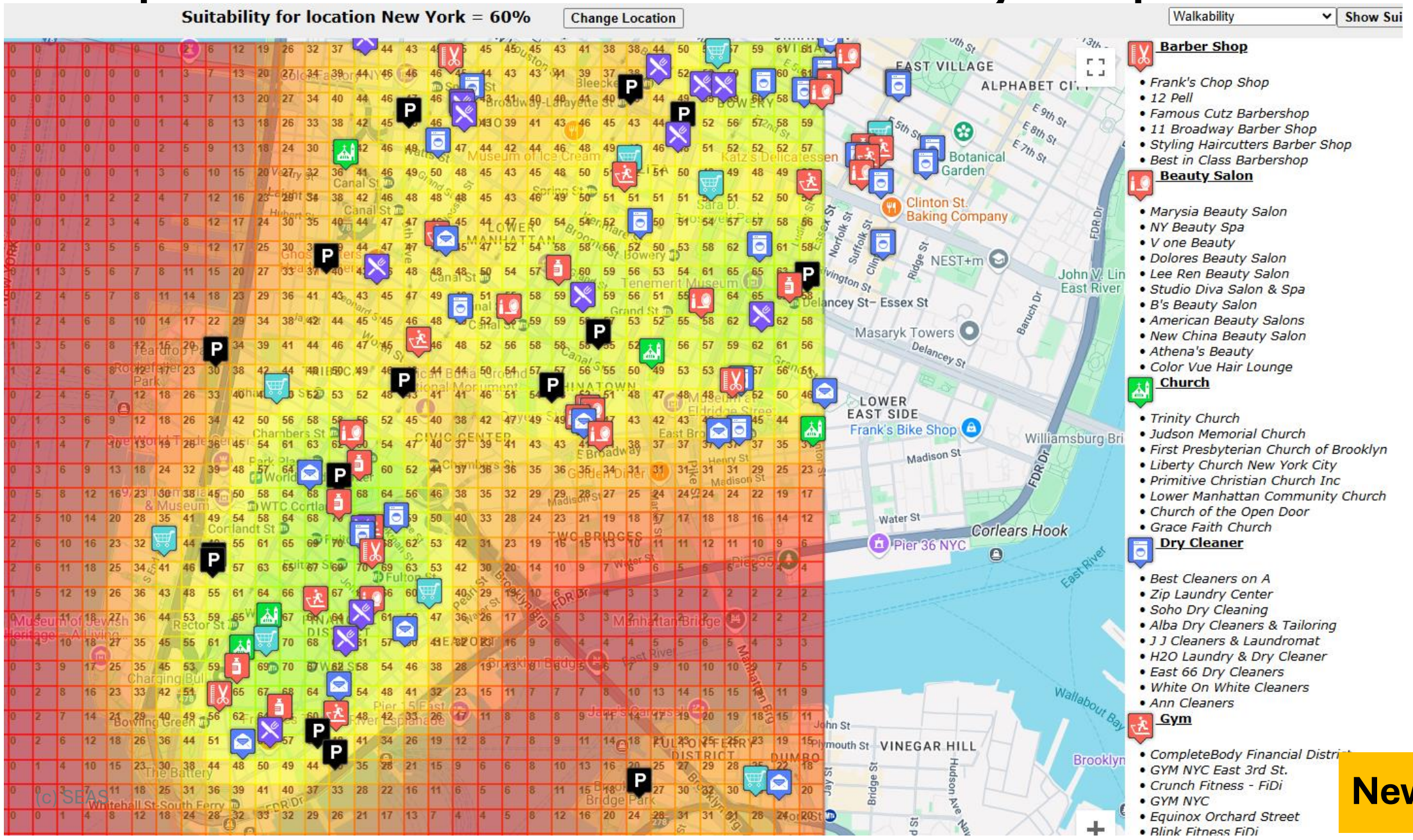
Example of walkability maps

- **Walkability** refers to the degree to which an area is friendly and safe for walking. It is a measure of how conducive an environment is to pedestrian activity based on factors such as safety, accessibility, comfort, and proximity to essential services or destinations (POI = Points Of Interest).
- Walkability is the default criterion for LSP suitability maps

Step 2: Get the map of selected location

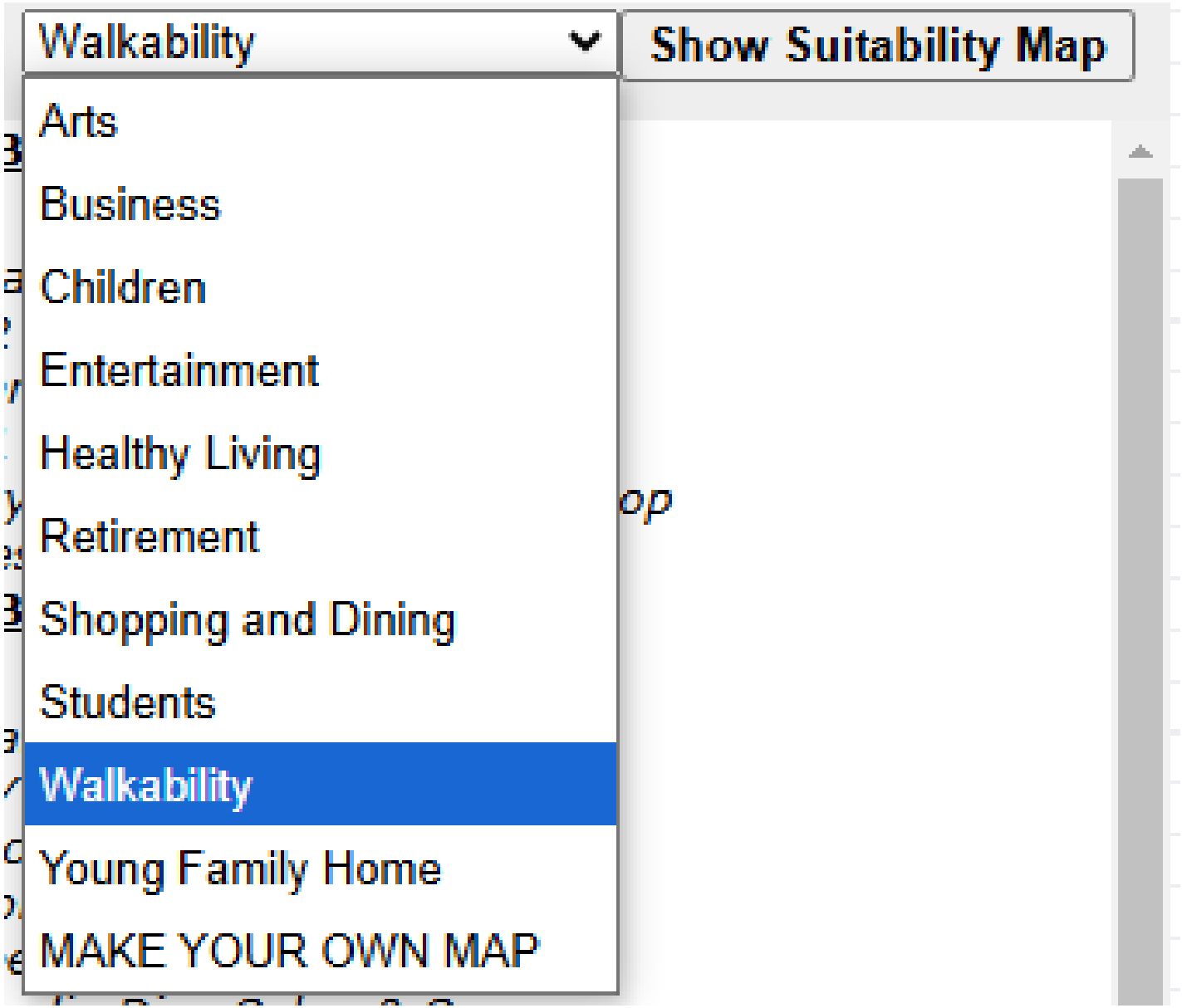


Step 3: Get the default suitability map



New York

Step 4: See the available maps



Step 5: See the default walkability LSP criterion

CUSTOMIZING THE ATTRIBUTE CRITERION

Show Suitability Map

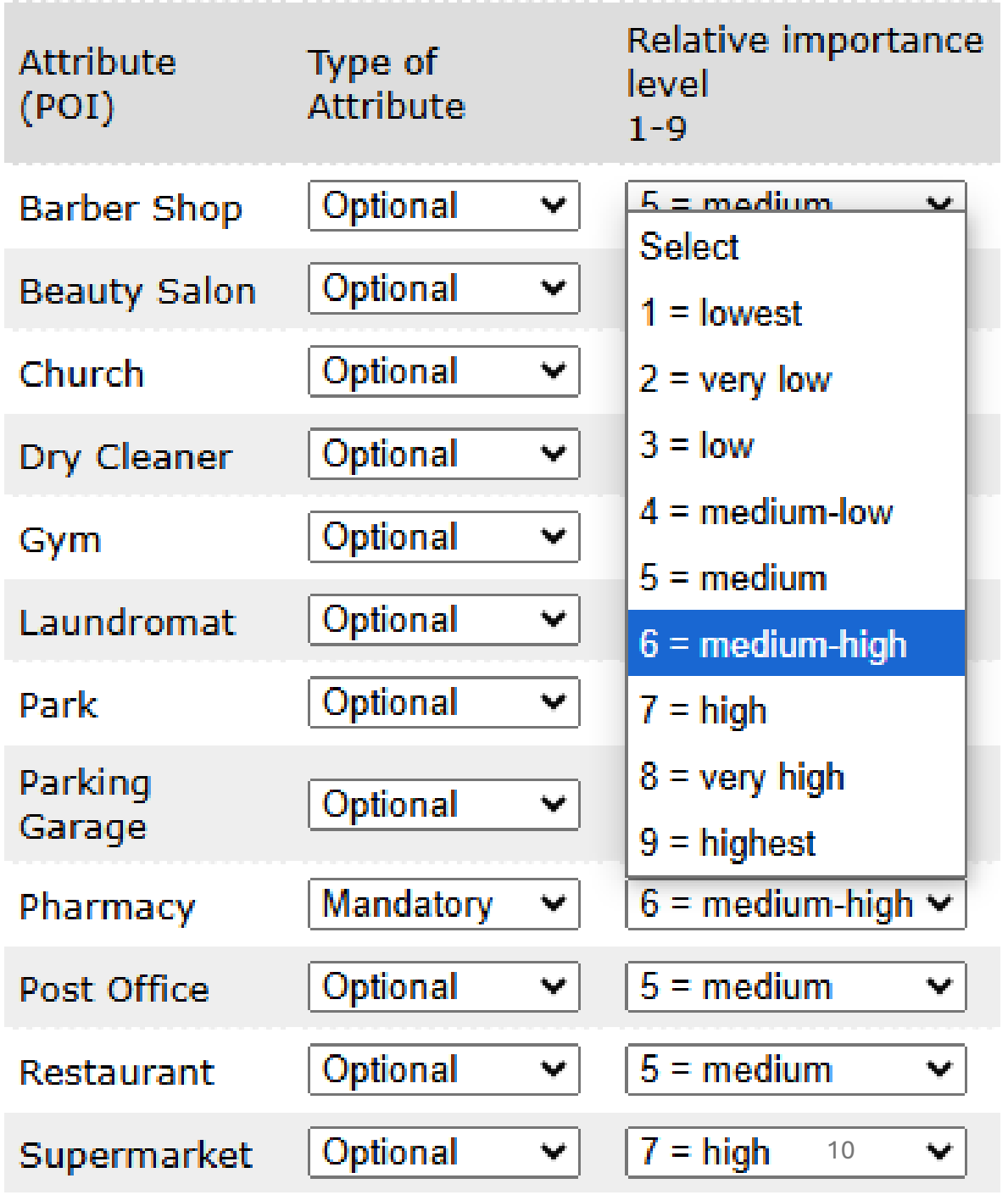
The values A,B,C,D are used for defining the attribute criterion. There are three available types of attribute criteria.
1. Select C and D only (C<D) if you prefer small values of the attribute (e.g. a small distance from a grocery store)
2. Select A and B only (A<B) if you prefer large values of the attribute (e.g. a large distance from a cemetery)
3. Select A,B,C,D (A<B<C<D) if you prefer a range of values (e.g. neither too close nor too far from a restaurant)

			A	B	C	D
Attribute (POI)	Type of Attribute	Relative importance level 1-9	I will not be satisfied at all if the distance, in yards, is less than or equal to:	I will be perfectly satisfied if the distance, in yards, is greater than or equal to:	I will be perfectly satisfied if the distance, in yards, is less than or equal to:	I will not be satisfied at all if the distance, in yards, is greater than or equal to:
Barber Shop	Optional	5 = medium	Not Used	Not Used	200	800
Beauty Salon	Optional	5 = medium	Not Used	Not Used	200	800
Church	Optional	4 = medium-low	Not Used	Not Used	200	800
Dry Cleaner	Optional	5 = medium	Not Used	Not Used	200	1000
Gym	Optional	4 = medium-low	Not Used	Not Used	200	800
Laundromat	Optional	5 = medium	Not Used	Not Used	200	600
Park	Optional	6 = medium-high	Not Used	Not Used	500	2500
Parking Garage	Optional	7 = high	Not Used	Not Used	200	800
Pharmacy	Optional	6 = medium-high	Not Used	Not Used	200	800
Post Office	Optional	5 = medium	Not Used	Not Used	200	800
Restaurant	Optional	5 = medium	Not Used	Not Used	200	800
Supermarket	Optional	7 = high	Not Used	Not Used	100	600

REQUIREMENTS: Standard **MAP DISPLAY OPTIONS:** Show Scores | Selected POIs | Color Overlay | 50% transparent | Hide Home Marker

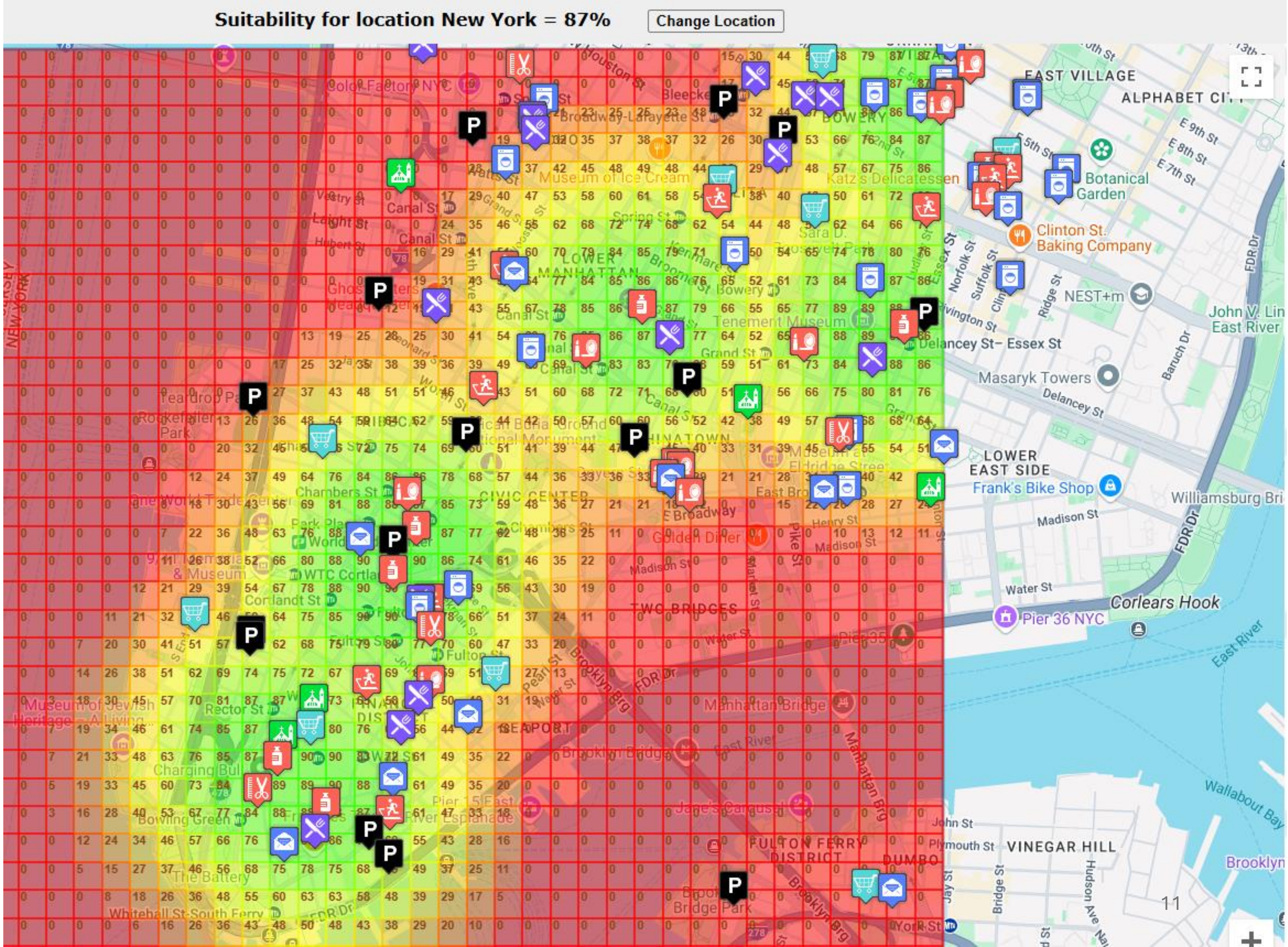
Show Suitability Map

Step 6: Modify the walkability LSP criterion:
e.g., the proximity to pharmacy is now mandatory



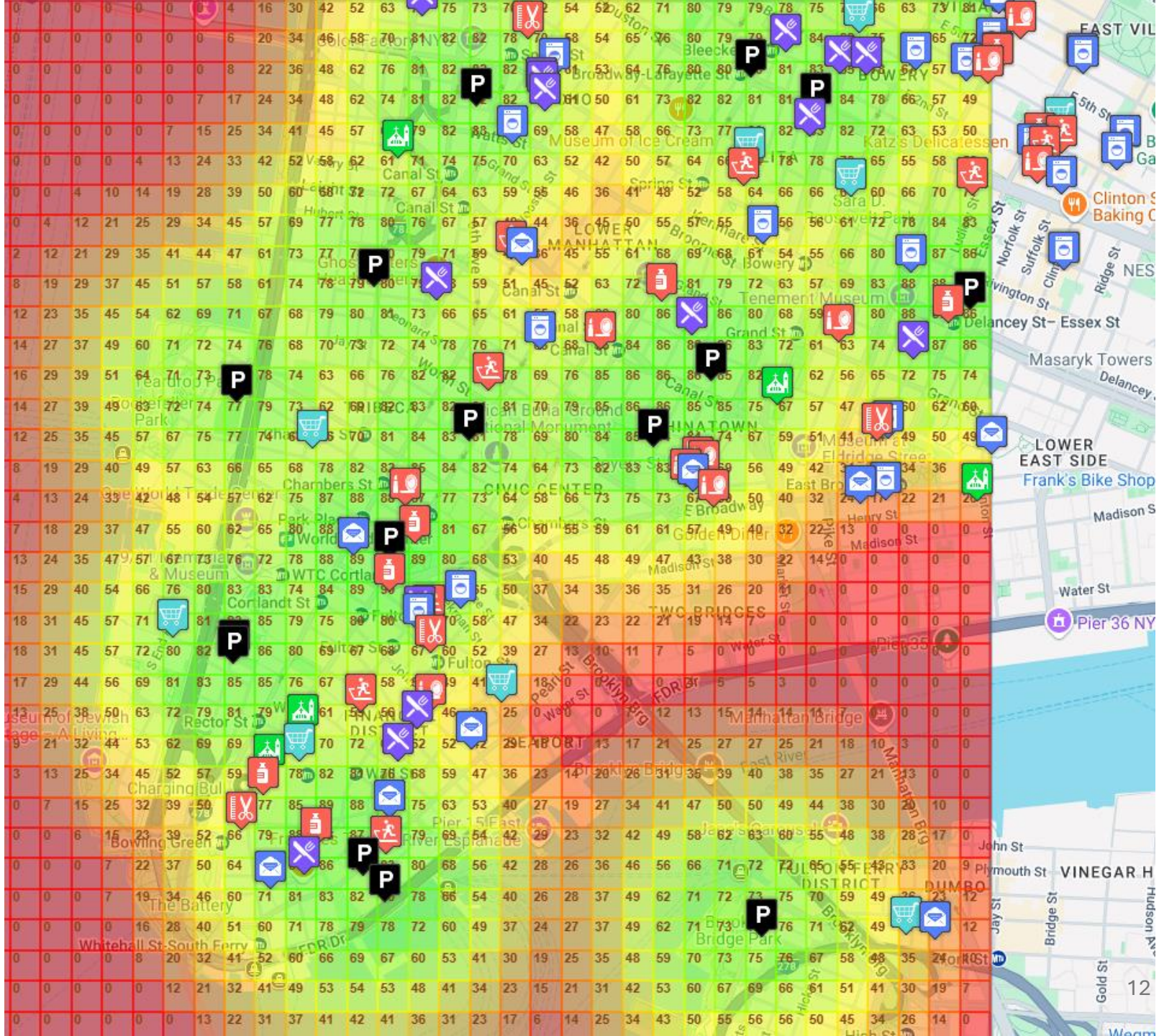
Walkability in the case where the proximity to pharmacy is mandatory

New York



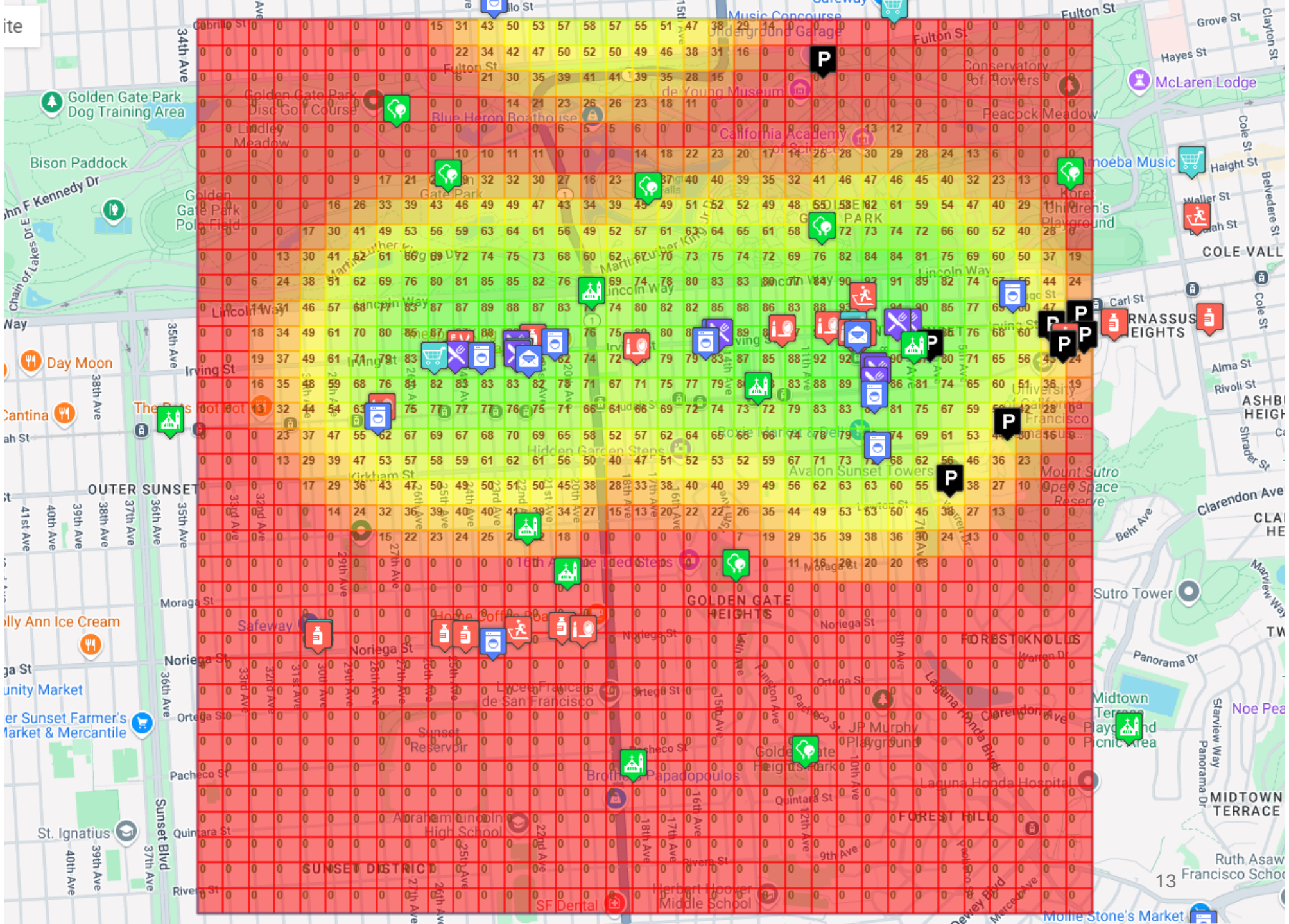
Walkability in the case where the proximity to parking garage is mandatory

New York



(c) SEAS

Suitability map for zip code 94122 (San Francisco)



Properties of LSP suitability maps

- LSP suitability maps can be developed as an overlay on top of any geographic map
- LSP suitability maps on top of Google maps are available for any location that exists in Google maps
- In the case of Google maps, the degree of suitability is computed using attributes that are defined as distances from selected points of interest
- LSP maps can have an adjustable degree of transparence
- LSP criteria can be predefined or adjustable by the user

More information

You can contact us by email to
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