CLAIMS

1. A method comprising:

receiving, by a dynamic transportation matching system, transport request information from a requestor computing device associated with a requestor, the transport request information including a request location for a pickup;

determining, by the dynamic transportation matching system, a modified request location associated with the request location based at least on a location score for each alternate request location of one or more alternate request locations within a threshold distance of the request location; and

sending, by the dynamic transportation matching system, modified transport request information associated with the modified request location and the requestor computing device to a provider computing device associated with a matched provider for the transport request information.

2. The method of claim 1, wherein the location score for each alternate request location indicates a fitness of each alternate request location for the pickup.

3. The method of claim 2, wherein the fitness of each alternate request location for the pickup is correlated with at least one of an expected delay or a probability of cancelation associated with each of the alternate request locations.

4. The method of claim 1, further comprising:

determining the location score for each alternate request location based on at least one of: a historical rate of contact between providers and requestors for each alternate request location, an estimated time from provider arrival to requestor pickup for each alternate request location, an estimated distance of travel of the requestor to the matched provider for each alternate request location, or a historical rate of cancelation for each alternate request location.

5. The method of claim 4, wherein the location score for each alternate request location is based on at least one of: a time associated with the transport request information, a day associated with the transport request information, road conditions associated with the transport request information, or weather associated with the transport request information.

6. The method of claim 1, wherein determining the modified request location associated with the request location further comprises:

determining a request location score for the request location;

determining the one or more alternate request locations within the threshold distance of the request location;

determining each location score of each alternate request location of the one or more alternate request locations;

comparing the request location score to each location score of each alternate request location; and

determining a selected alternate request location based at least in part on comparing each location score of each alternate request location to the request location score of the request location.

7. The method of claim 1, wherein before determining the modified request location associated with the request location, the method further comprises:

determining a request location score for the request location;

comparing the request location score for the request location to a threshold location score; and

determining that the request location score for the request location does not meet the threshold location score.

8. The method of claim 1, further comprising:

determining building perimeters for one or more buildings within a geographical area;
determining a layout of pathways in the geographical area;

determining a width of the pathways based on a distance from an estimated center line of the pathways to the building perimeters;

determining one or more curb segments bordering a respective pathway of the pathways based at least on the width of a respective pathway and the building perimeters; and

storing curb segment data describing locations of the one or more curb segments, the curb segment data identifying particular curb segments with respect to the locations of the one or more buildings and the layout of pathways.

9. The method of claim 8, further comprising:

determining, based at least on the curb segment data, one or more curb segments within the threshold distance of the request location;

determining intersection points of the one or more curb segments; and

determining, for each intersection point, one or more alternate request locations along each intersecting curb segment, each of the one or more alternate request locations being a threshold distance from the intersection point.

10. The method of claim 1, further comprising:

determining a first pickup delay time associated with a request location score of the request location;

determining a second pickup delay time associated with the location score of the modified request location;

causing the requestor computing device to display mapping data including at least a navigation route to the alternate request location;

causing the requestor computing device to display information corresponding to the alternate request location, including a difference between the first pickup delay time and the second pickup delay time; and

receiving, from the requestor computing device, an indication of a selection of the alternate request location.

11. The method of claim 1, further comprising:

determining a subset of the one or more alternate request locations based on data associated with the requestor, including at least one of: walking distance preference data, historical walking data, age, average walking speed data, elevation data, weather data, current time, or road safety data;

causing the requestor computing device to display the subset of the one or more alternate request locations; and

receiving, from the requestor computing device, a selected alternate request location from the subset of alternate request locations.

12. A computing device comprising:

a processor; and

a computer-readable medium comprising code, executable by the processor, to cause the computing device to:

receive transport request information associated with a requestor computing device associate with a requestor, the transport request information including a request location for a pickup;

determine a modified request location associated with the request location based at least on a location score for each alternate request location of one or more alternate request locations within a threshold distance of the request location; and

send modified transport request information associated with the modified request location to the requestor computing device and to a provider computing device associated with a matched provider for the transport request information.

13. The computing device of claim 12, further comprising code to cause the computing device to:

determine the location score for each alternate request location based on at least one of: a historical rate of contact between a matched provider and a requestor for each o alternate request location, an estimated time from provider arrival to requestor pickup for each alternate request location, or an estimated distance of travel of the requestor to the matched provider for each alternate request location.

14. The computing device of claim 13, wherein the location score for each alternate request location is based on at least one of: a time associated with the transport request information, a day associated with the transport request information, road conditions associated with the transport request information, or weather associated with the transport request information.

15. The computing device of claim 12, wherein determining the modified request location associated with the request location, further comprising code to cause the computing device to:

determine a request location score for the request location;

determine the one or more alternate request locations within the threshold distance of the request location;

determine each location score of each alternate request location of the one or more alternate request locations within the threshold distance;

compare the request location score to each location score of each alternate request location; and

determine a selected alternate request location based at least in part on comparing each alternate location score to the request location score.

16. The computing device of claim 12, wherein before determining the modified request location associated with the request location, further comprising code to cause the computing device to:

determine a request location score for the request location;

compare the request location score for the request location to a threshold location score; and

determine that the request location score for the request location does not meet the threshold location score.

17. The computing device of claim 12, further comprising code to cause the computing device to:

determine a subset of the one or more alternate request locations based on data associated with the requestor, including at least one of: walking distance preference data, historical walking data, age, average walking speed data, elevation data, weather data, current time, or road safety data;

causing the requestor computing device to display the subset of the one or more alternate request locations; and

receiving, from the requestor computing device, a selected alternate request location from the subset of alternate request locations.

18. A system comprising:

a dynamic transportation matching system configured to:

receive a transport request from a requestor computing device including a request location associated with a curb segment for a pickup;

determine a location score for the curb segment;

determine alternate request locations relative to the request location based at least on alternate location scores for the alternate request locations and the location score for the curb segment; and

transmit the alternate request locations to the requestor computing device and a provider computing device.

19. The system of claim 18, wherein the alternate location scores for the alternate request locations is based on at least one of: a time associated with the transport request, a day associated with the transport request, road conditions associated with the transport request, or weather associated with the transport request.

20. The system of claim 18, wherein determining alternate request locations relative to the request location causes the computing device to:

determine a request location score for the request location based at least in part on the location score for the curb segment;

determine one or more alternate request locations within a threshold distance of the request location;

determine alternate location scores of the one or more alternate request locations within the threshold distance;

compare the request location score to each of the alternate location scores of the one or more alternate request locations;

determine a selected alternate request location based at least in part on comparing the alternate location scores to the request location score.