Items in quotes are taken from the Draft EIS Document, LGA Access EIS

Legal Requirement

CEQ regulations (40 CFR 1502.14) for implementing NEPA require that federal agencies perform the following tasks:

- *rigorously explore and objectively evaluate all reasonable alternatives, and—for alternatives that were eliminated from detailed study—briefly discuss the reasons for their elimination;*

SUMMARY:

- The study did not "rigorously" study alternatives.
- To quickly view the JPods solar-powered mobility alternative click this link and scroll down the page.
- See Section 1 below.

Need to be met:

The need for the Proposed Action, as identified in Section 1.4, is to address the following:

- *increasing and unreliable travel times between LGA and key locations within New York City (time-certain);*
- *limited passenger and employee access to and from LGA, which is primarily via roadway access;*
- *traffic congestion on off-Airport roadways near the Airport, which contributes to Airport access travel times;*
- *limited on-Airport options to provide adequate employee parking and areas for storage of equipment and materials for maintenance activities.*

SUMMARY:

- These objectives are all met better by JPods solar-powered mobility networks without the $2 billion burden on the taxpayers. JPods networks are privately funded.
- COVID studies prove the queuing and transfers required by the selected option amplify contagion spread by at least 6 times. A 6-times amplification of contagion spread makes the AirTrain choice unreliable and unsafe.
- See Section 2 below.

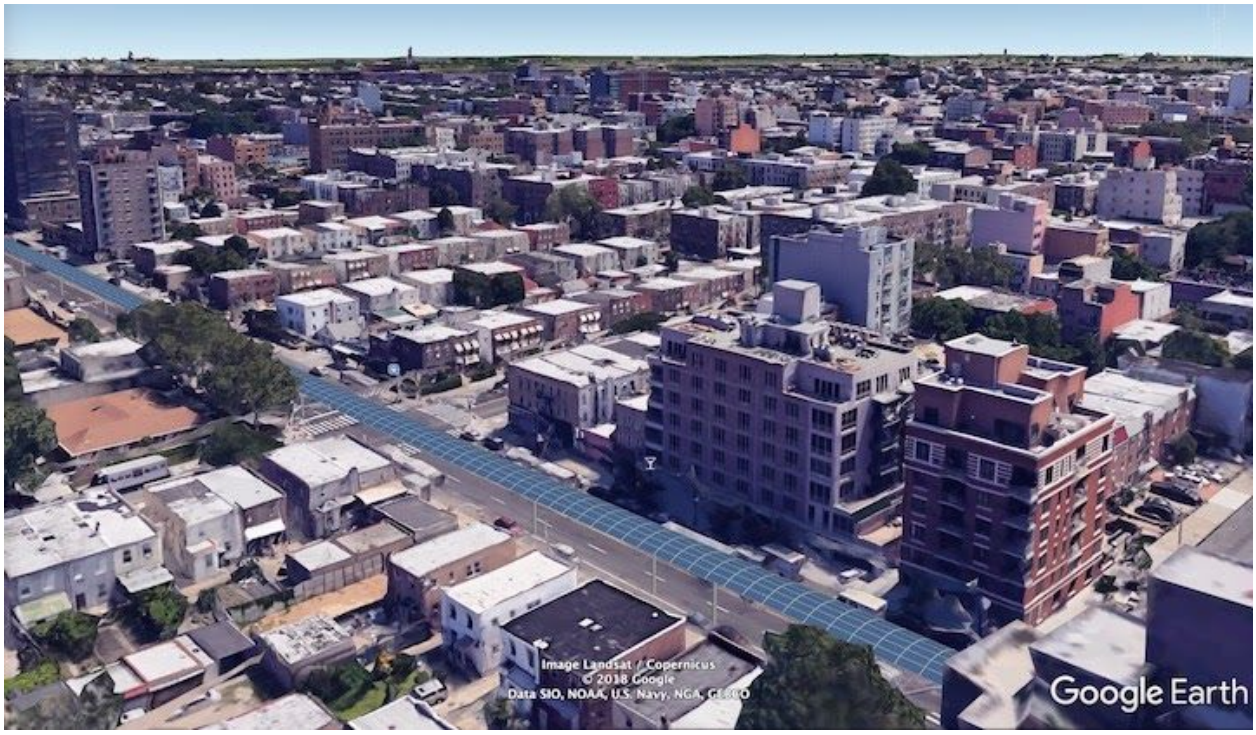
Section 1: Failure to Satisfy CEQ regulations (40 CFR 1502.14)

Requirement: *rigorously explore and objectively evaluate all reasonable alternatives, and—for alternatives that were eliminated from detailed study—briefly discuss the reasons for their elimination;*

Summary: In clear violation of CEQ regulations (40 CFR 1502.14) the EIS failed to "*rigorously explore and objectively evaluate all reasonable alternatives"*.

- The Port Authority and New York City Agencies were provided studies fixed guideways (PRT, JPods, SkyTran, etc.):
    - Congressional study "Automated Guideway Transit", PB-244854. It identified Personal Rapid Transit networks such as the Morgantown PRT (Personal Rapid Transit) as the solution to foreign oil addiction and urban traffic problems. The choice of the AirTrain is a defect stated clearly on Page 41 of this study:
        - *"Urban transportation technology has advanced at such a slow pace that prevailing systems are almost indistinguishable from their counterparts of* ***four to six decades ago (aside from some relatively minor cosmetic changes)****. However, the lack of progress is not a result of failure to advance technology. Much advanced transportation technology exists. Rather, it is a failure to devise effective ways to introduce the technology into urban transportation."* The AirTrain is one of those cosmetic changes without innovation.
    - Princeton study of PRT
    - May 2007 New Jersey Legislature Study
    - Video of Cabinetaxi
    - Links to JPods Route-Time and 3D modeling software
        - Link to Route-Time simulation of travel times in Queens on a JPods network.
        - Link to a 3D Ride-along simulation of riding JPods from Grand Central Station to LaGuardia.
- Paragraph 2.3.9 Fixed Guideway Alternatives listed "*JPod*." There was a clear awareness of data to include to "*rigorously explore and objectively evaluate."*
- Metric of the failure to "*rigorously explore and objectively evaluate all reasonable alternatives"* are documented repeatedly in 2.6.4 subparagraphs:
    - Grossly inflated the cost of alternative networks by 50 times per mile.
        - Typically cites costs of $1.09 billion per mile regardless of technology of the AirTrain was applied to all fixed guideway systems (footnote #27 Executive Summary).
        - Actual costs are $15 to $30 million per mile for JPods.
        - The cost of Ultra's Heathrow network was $16.5 million per mile ($39 million for 2.36 miles).
    - Grossly overstated construction impacts (using JPods data as an example):
        - Guideways have a tiny footprint of about 1 square meter every 30 meters (~square yard, every 100 feet).

- The distance between these tiny footprints can be adjusted up or down from the 30 meter typical to avoid existing utilities, minimizing costs of utility relocations.
- This typical span of 30 meters can be greatly increased using various techniques.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    - JPods was not contacted to fulfill the requirement to "*rigorously explore and objectively evaluate".*
- Failed to consider the Prime Law of Networks: *“Network value increases exponentially as the packet-size is driven towards one and the number of interconnected nodes increases.”*

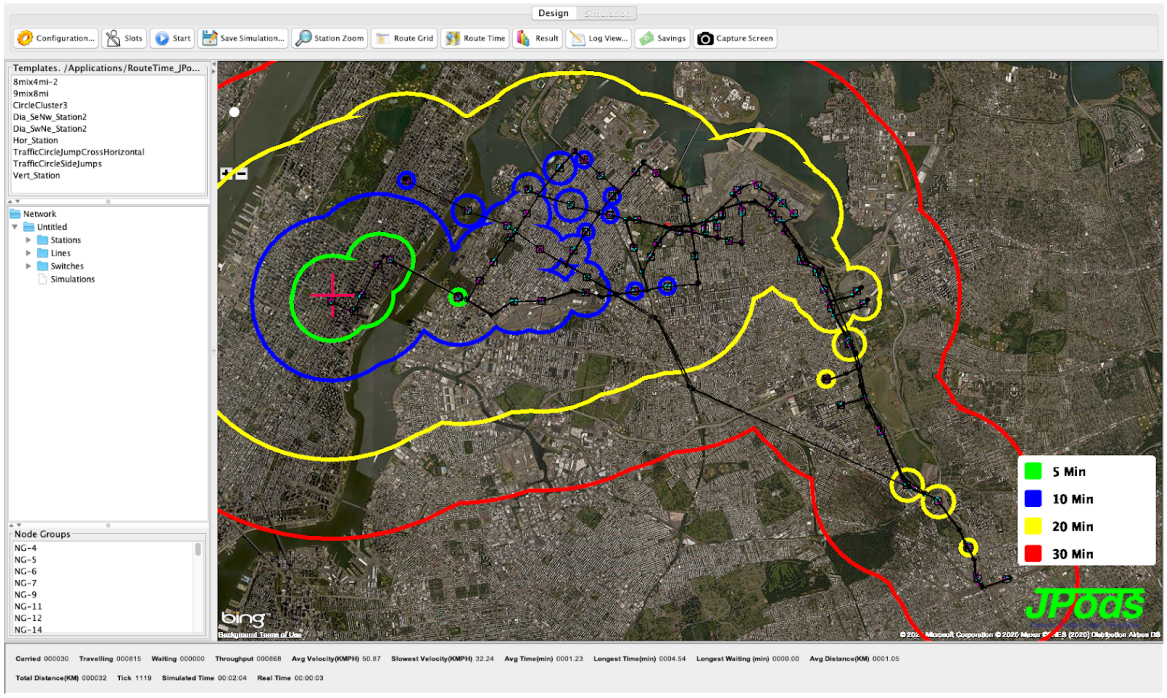
Section 2: Meeting the Need

Paragraph 2.4 defines a two-step process:

1. *Does the alternative meet the Purposed Need?*
    - Paragraph 2.5.9 states clearly that all the fixed guideway systems, such as JPods, meet the need.
    - JPods radically improve the “time-certain” requirement over the selected AirTrain. The AirTrain is to depart every 4 minutes with a need to wait and transfer to other trains. This link to a Route-Time video showing a JPods network in Queens. Note that JPods networks are privately funded *and* a JPods network in the $1.5 billion class covers most of Queens (see images below. Note also that with the AirTrain people often que longer than required for JPods to deliver them to their destination. From LGA to Grand Central Station would take about 16 minutes, 24x7.
        - In the following images the start location is marked by a Red Cross. Where you can walk-ride-walk are noted by circles around each station

you can travel to. Green is 5 minutes, Blue is 10 minutes, Yellow is 20 minutes, and Red is 30 minutes.

Start point at Grand Central Station with LaGuardia about 17 minutes away, 24x7.Jamaica Station is about 23 minutes away.



Start point at LaGuardia with Grand Central Station about 17 minutes away, 24x7. Jamaica Station is about 17 minutes away.

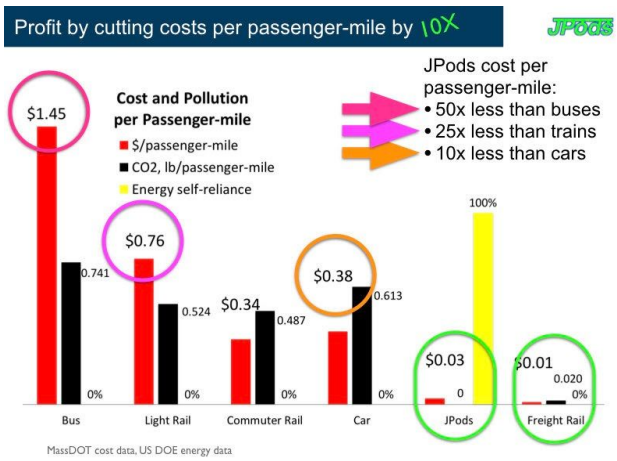
2. *Would the alternative be reasonable to Construct and Operate?*
    - Section 1 above provides metrics that the EIS **failed its obligation to "*rigorously explore and objectively evaluate all reasonable alternatives*"**.
    - Paragraph 2.6.4.1 Alternative 9A was viewed as:
    - Metrics listed in Section 1:
        - Costs per mile over fixed guideways were overstated by about 50 times. $16.5 million per mile ($39 million for 2.36 miles).
        - Claiming the fixed guideways would have to be built in the median of the GCP and shifting the lanes.
            - This statement is repeatedly and incorrectly made: "*reasonable to construct and operate and was analyzed in detail in the EIS*".
            - This fails to understand the basic nature of the ultra-light guideways (example 2.6.4.2). It ignores the graphics provided above and by JPods (www.QueensMobilityCompany.com).
    - JPods can be privately funded and cover most of Queens with solar-powered mobility networks for the cost of the 2.2 miles of the AirTrain. (www.QueensMobilityCompany.com)

Needs not listed in the requirements are:

1. **Suppression of COVID and other contagions:**
    - The AirTrain amplifies contagion defects as noted by:
        - De Blasio: MTA isn't telling the 'whole truth' on subway overcrowding
        - London Tube Study documents that queuing and transfers on mass transit amplifies the spread of flu contagion by 6 times. COVID is 2.5 times more contagious than the flu.
            - *"Higher rates [of influenza-like cases] can be observed in boroughs served by a small number of underground lines: passengers starting their journey in these boroughs usually have to change lines once or more in crowded junctions such as King's Cross in order to reach their final destination...On the other hand, lower influenza-like rates are found in boroughs where either the population do not use public transport as the main form of transport to commute to work; or boroughs served by more underground lines, which guarantee faster trips with less stops and contacts with fewer people."*
        - MIT study of the NYC subways found:
            - Impact on riders:
              The first is that the rate of disease transmission is related to the number of trips and average number of stations per trip along the entire subway line, and not just to the number of entries at any one subway station. Second, passengers entering the subway line even at a remote, less populous station are slowing down the system, thus increasing the transit time that the S's stay in contact with the I's. Third, those uninfected S- passengers who cram shoulder-to-shoulder into a particular subway are increasing train-car density and thus raising the average number of other S-passengers infected by an I-passenger who happens to be standing in the middle of the train. Fourth, local trains – like the Flushing local – are more likely to seed epidemic infections than express lines. Finally, an entire subway line, rather than the individual stations or subway cars, is the appropriate unit of analysis.
              Impact on subway workers:
              By April 16, the MTA had reported 68 deaths among more than 2,400 subway and bus employees who had tested positive. "Another 4,400 are on home quarantine and thousands more are calling out sick."
              "Data from TWU Local 100 (subway workers) indicate...more than three times the rate...the most affected hotspot."
    - JPods mitigate contagion spread by (link to details):
        - Social Distancing: You do not ride with strangers. You travel by yourself or with your family/party.

- JPods are on-demand. You walk into a station, get in a pod, and go directly from origin to destination. There is no queuing nor any transfers.

2. **Climate Change mitigation**:
   - US DOE publishes energy consumed per passenger-mile for various modes of transportation.
   - Energy used per passenger-mile equates to CO2 per passenger-mile.
   - Using electricity to move trains produces CO2 remotely from burning coal and natural gas.
   - It is a few years old, but the fundamentals are not likely to have changed much:
     - Buses: .741 pounds of CO2 per passenger-mile
     - Trains: .524 pounds of CO2 per passenger-mile
     - Cars: .613 pounds of CO2 per passenger-mile
     - JPods: .000 pounds of CO2 per passenger-mile. JPods are solar-powered. Link to solar-collectors the JPods team manufactures in Poughkeepsie, NY. Link to 5 years of data on collection systems designed for over JPods guideways.



3. **Capacity**:
   - There are misconceptions that trains have great capacity because we look at how many people can be shoved into a single train. We do not look at how long the tracks are empty between trains or at the times between trips. For example, trains moving 7 minutes apart with 325 people each move at 2,785 per hour.
   - Link to understanding the capacity of JPods networks.
     - A JPods guideway moving 4 people per vehicle with .5 second headways move 28,800 people per hour.
   - Capacity of other AirTrains:
     - SFO AirTrain schedule, every 2.5 minutes: https://en.wikipedia.org/wiki/AirTrain_(San_Francisco_International_Airport)

        - Capacity : 105 (22 seating, 83 standing) per car with two cars per train: https://en.wikipedia.org/wiki/Bombardier_Innovia_APM_100
        - Max Rate if every train is packed (no social distancing): 5,040 people per hour
    - Logan Airport, Blue Line, schedule departs every 5 minutes, https://www.mbta.com/schedules/Blue/schedule
        - Seating in 6 cars is 336.
        - Max Rate if every train is packed (no social distancing): 3,600 people per hour
    - Las Vegas Monorail illustrates the ability of air trains to produce more value than their cost of operations:
        - Cost to build is $650 million.
        - Sold in August in bankruptcy for $24 million.
4. **Service Quality and Hours of Operations**:
    - JPods operate 24x7.
    - JPods wait for people at stations instead of people waiting for trains.
    - JPods provide you with on-demand mobility regardless of age, ability, or wealth.
    - Video of how JPods stations work.
5. **Freight**:
    - It is critical for sustainable infrastructure to serve both people and cargo.
    - In addition to people pods, JPods networks have cargo, garbage, and many other specialty pods.
6. **Jobs**:
    - The AirTrain is NOT manufactured in NY.
    - The JPods team already has a solar manufacturing plant in NY. Manufacturing can be expanded in Queens.
    - Manufacturing jobs can be created in Queens instead of overseas.
7. **Additional data**:
    - 10X Benefits of JPods
    - Red Bull TV documentary on the future of transportation (self-driving cars, JPods, Hyperloops)
    - TEDx Atlanta presentation
    - Governor of West Virginia announced a Hyperloop facility.
    - News on the shift to digital mobility networks