Fact-Checking the MTA's Interborough Express FAQs

By John Pegram[1]

The MTA updated its Interborough Express (IBX) FAQs (Fact Sheet) in late February 2024. A number of the updated statements attempt to support the MTA's selection of a Light Rail Transit (LRT) mode for the IBX line and running Light Rail Vehicles (LRVs) in the streets around All Faiths Cemetery. I disagree with a number of those statements, as indicated by my responses below.

The use of LRVs may have made sense over two years ago, when the MTA was considering an IBX Light Rail route having significant sections at street level,[2] but that plan having been withdrawn (wisely), Light Rail does not make sense now for the IBX line.

Questions from the MTA FAQs section "IBX MODE AND RAIL TYPE" are quoted below after "**MTA FAQs**." The MTA's answers are quoted following "**MTA**." My responses follow "**RESPONSE**."

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1 © John Pegram 2024.

2 MTA, *Interborough Express – Feasibility Study and Alternatives Analysis – Interim Report* (Jan. 2022) (Interim Report). That report without appendices is available from the MTA here. The most complete version with appendices that is available to the public, produced to me in response to my Freedom of Information Law (FOIL) requests, is available for download here. Citations to pages of this version, as indicated by a PDF reader, are in the form [###/1041].

MTA FAQ: "Which mode is the MTA advancing, and why?"

MTA - Service: "LRT is the fastest option…."

RESPONSE: False.

- The MTA conceded in an Email to me on April 2023 that "LRT has comparable acceleration/deceleration characteristics to Conventional Rail."[3]
- The MTA's speed and end-to-end time estimates assume the same maximum running speed (35 mph) for both LRT and CR modes.[4]
- The MTA has asserted a shorter, 39 minutes end-to-end running time for the LRT mode as compared with 45 minutes for Conventional Rail (CR). That is incorrect in two respects: it over-estimates running time for subway-like CR railcars and it fails to consider the delays caused by street-running time for LRVs.
- The difference in the MTA's running time estimates is due to an asserted dwell time at stations of 45 seconds for CR as compared with 30 seconds for LRT mode.[5] That appears to have been based on estimates made in February 2021, when the MTA contemplated the use of commuter rail cars like the 85-foot-long LIRR type M9.[6]
- The dwell times of NYC Transit subway trains are typically less than 30 seconds.[7] Therefore, subway-like CR railcars are likely to have dwell times equal to or shorter than that of LRVs. If the dwell times for CR in the MTA's estimates were reduced to 30 seconds, the calculated end-to-end times for CR and LRT modes on the dedicated IBX right-of-way would be the same.

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3 *See* my article Light Rail Vehicles Are Not the Best Choice for the Interborough Express.

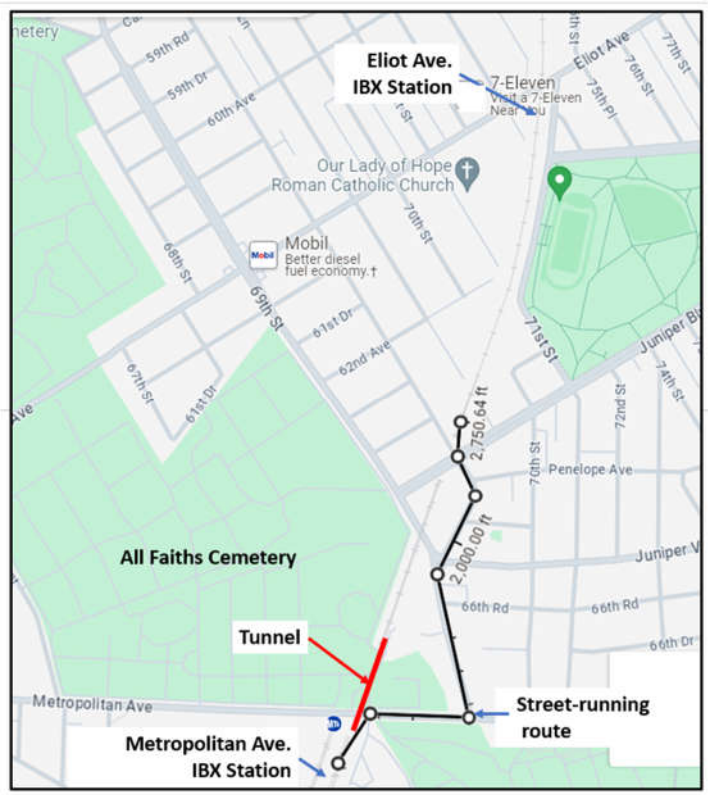
4 Interim Report, *supra* note 2, Appendix 1.16, Appendix B at pp. 3, 5 [767/1041, 769/1041].

5 *See id.*

6 *Id.,* Appendix 1.8 at p. 4, 12 [365/1041], Appendix 1.16 at p.12 [757/1041].

7 *See* my article Light Rail Vehicles Are Not the Best Choice for the Interborough Express.

- Because street-running of Light Rail around All Faiths Cemetery would be slower than going straight through a tunnel, the end-to-end times with street running LRVs would be longer than the 39 minutes projected by the MTA, possibly 4 to 6 minutes longer. (See map and Middle Village resident's comment below).
- Conclusion: The Light Rail mode would be no faster than subway-like Conventional Rail mode when running on the dedicated right-of-way, and slower if LRVs run in the streets around All Faiths Cemetery, as proposed by the MTA.



MTA: Service: "LRT …can fully meet passenger demand."

RESPONSE: Doubtful.

- MTA's January 2022 IBX Interim Report projected 87,800 weekday riders for the LRT mode.[8] That projection apparently was for the year 2040.[9]

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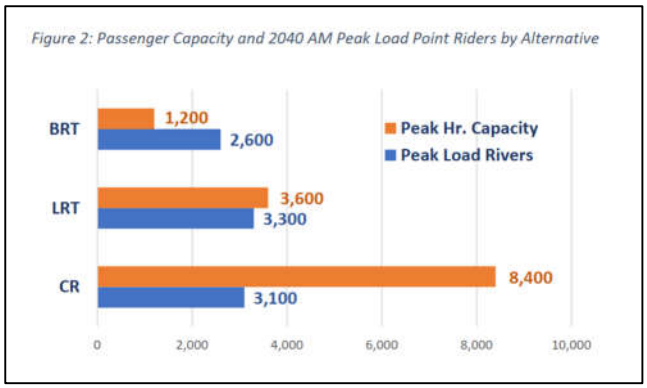
8 Interim Report, *supra* note 2, p. 16.

9 *See id.* at p. 12 ("Annual Ridership Estimate (2040)").

- The MTA's February 2024 FAQs state "Initial studies predict up to 115,000 daily weekday ridership."[10]
- The MTA's ridership projection for the LRT mode, in its 20-Year Needs Assessment Appendix, is 118,700 daily riders in 2045,[11] a 35% increase over the Interim Report's projection.
- Appendix 1.16 of the MTA's Interim Report estimated that the peak hour capacity of twelve 285 foot long, 3-car LRT trains would be 3,600 and estimated the peak hour ridership would be 3,300, 92% of capacity.[12] (See chart from Interim Report below).[13]



- Assuming an increase in peak hour ridership proportional to the increase in daily riders to 118,700, projected in the MTA's 20-Year Needs Assessment Appendix, peak hour ridership would be 4,455, 24% above capacity for a 3-car LRT train.
- However, the MTA's most recent estimates have increased the number of riders per 3-car LRT train by 20%, from 300 to 360.[14] Even in that case, peak hour ridership would be at or above capacity for a 3-car LRT train.
- Even a 3-car LRT train would create problems in the route of the proposed street-running LRT mode.[15]

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10 MTA, Interborough Express (IBX) FAQs (Fact Sheet) at p. 1.

11 20-Year Needs Assessment Appendix at p. 221.

12 Interim Report, supra note 2, Appendix 1.16, pp. 5, 9, 13 [750/1041,754/1041, 758/1041] (3-car train being considered); *id.* at p. 14 [759/1041] (estimate).

13 Interim Report, supra note 2, Appendix 1.16 at p. 14 [759/1041].

14 MTA Open House Presentations (late 2023) at slide 7.

15 *See* my article Street-Running LRVs on the Interborough Express Line is a Bad Idea.

- Increasing the length of an LRT train beyond 3-cars—to add capacity—would be impractical for street-running on the proposed route in Middle Village. Such long trains would create too great an obstacle and too great delays for traffic, especially when turning.
- Running trains more frequently, to increase capacity, would increase interference with motor vehicles and pedestrians in Middle Village, and would require buying more railcars.
- Some people, including me, believe the MTA has underestimated potential IBX ridership.
- Conclusion: It is doubtful whether "LRT …can fully meet passenger demand."

MTA - Cost-effectiveness: "LRT is a versatile transit mode that would allow operation in the most constrained portions of the corridor, including East New York tunnel, and comply with all fire and life safety requirements."

RESPONSE: Misleading.

- The LRT mode's only versatility advantage for the IBX line would be street-running around All Faiths Cemetery, to avoid building a new tunnel.
- Street-running there is unacceptable to most commentors considering the question.[16]
- An additional All Faiths Cemetery tunnel, not the long and deep one proposed by the MTA, appears to be practical and buildable at a reasonable cost.[17]
- Existing, subway-type "conventional" railcars, such as PATH PA-5 and NYC Transit A Division (numbered lines) cars, can operate in the most constrained

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16 *See* my articles Light Rail Not Preferred for the Interborough Express; More Opposition to Light Rail for the IBX Line; Reactions to Interborough Express Light Rail; Most Comments Oppose Street-Running for the Interborough Express—Part 1; Most Comments Oppose Street-Running for the Interborough Express—Part 2.

17 *See* my article Tunnel Possibilities for the Interborough Express.

portions of the corridor, including East New York tunnel, and comply with all fire and life safety requirements.[18]

- NYC Transit B Division (lettered lines) railcars also may be able to operate there.[19]

MTA: "Light Rail vehicles can be procured "off-the-shelf" with minimal modification…."

RESPONSE: Misleading.

- No evidence has been provided of "off-the-shelf" availability of Light Rail cars that would be suitable for the IBX line.[20]
- Manufacturers' literature indicates that Light Rail cars are typically customized for the purchasing agency.[21]
- The MTA's statement incorrectly suggests that the IBX line could not use readily available, existing railcar designs, like the PATH PA-5 railcars or the new NYC Transit A Division R262 railcars.
- When has the MTA ever purchased railcars that were not designed to its specifications?

MTA - Value: "Conventional Rail has a much higher construction cost leading to higher cost-per-rider figures for both compared to LRT."

RESPONSE: False and Misleading

- The MTA consultants' construction cost estimates for CR were significantly greater than those for LRT for two, avoidable reasons.

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18 *See* my articles Light Rail Vehicles Are Not the Best Choice for the Interborough Express; "Trams Are Bad for High-Capacity Metro-Style Use"; No Low-Floor Railcars for the Interborough Express.

19 *See* my article Full-Size Trains for the Interborough Express.

20 This topic is not addressed in the MTA's IBX reports and appendices.

21 *See, e.g.*, Siemens, Low-Floor Light Rail Vehicle brochure (describing a variety of designs for different systems); Kinki Sharyo, Sound Transit Technical Data brochure ("A large and spacious 70% low-floor LRV specifically designed for Seattle's riding public.")

- The MTA's PEL Report proposed a 4,400 foot-long, deep, bored tunnel to add needed track capacity under All Faiths Cemetery for the CR mode,[22] instead of a much less expensive 500-foot-long cut-and cover tunnel, located east of the existing tunnel.[23]
- According to Ben Brachfeld's article in AMNY, the cemetery's supervisor told him, "The MTA has never contacted All Faiths about possibly expanding the tunnel or the transit project generally."[24]
- The MTA PEL Report's station cost estimates were based—for example—on stations that were nearly twice as large for CR as for LRT, to accommodate longer trains with greater capacity, and on CR station platforms that were heated for snow removal.[25]
- The MTA's published IBX construction cost estimates do not include the costs of railcars.[26] The costs for purchasing and maintaining street-running LRVs suitable for the IBX line are likely to be more expensive per rider than for readily available, existing "conventional" railcar designs, like the PATH PA-5 railcars or the new NYC Transit A Division R262 railcars.

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22 *See MTA, Interborough Express Planning & Environmental Linkages Study* (PEL Report), is available from the MTA here. Appendix 1.11, "Capital Cost Estimate," is missing from that version. The most complete version available to the public, including all appendices, was produced to me by the MTA in response to my Freedom of Information Law (FOIL) requests and is available for download here. Citations to pages of that version, as indicated by a PDF reader, are in the form [###/1150].

23 *See* my article Tunnel Possibilities for the Interborough Express.

24 *See* "The Queens graveyard that could put Hochul's Interborough Express six feet under", discussed in my article Reactions to Interborough Express Light Rail.

25 Compare, for example, platform areas and platform costs for CR and LRT in the PEL Report, *supra* note 20, Appendix 1.11, in its Appendix A, p. 14 [823/1150]. Note that those costs are before addition of indirect costs and allowance for inflation, and that there are other increased costs associated with the larger CR stations. *See generally* my article IBX Cost Estimate Excesses and Errors.

26 *See* PEL Report, *supra* note 20, Appendix 1.11, in its Appendix A, p, 3 [812/1150] (the total estimated costs were "less vehicle cost").

MTA - Public Feedback: “Over 1,000 comments were received on the MTA’s project website. Themes of this feedback suggest an overwhelming preference for a rail option within the corridor.”

RESPONSE: Incomplete and Misleading.

- Those comments show a strong preference for subway-like railcars over Light Rail.[27]
- Those comments show a preference for avoiding street-running, which was the primary reason for the MTA’s selection of Light Rail.[28]

MTA FAQ: “Why will the IBX use light rail instead of subway cars?”
MTA:

- **“**Light rail is more cost effective….”
- “Light rail … has faster end to end run-times….”
- “Light rail **…** can be procured “off-the-shelf” with minimal modification….”
- **“**Light rail is also more flexible as it can operate in multiple environments.”

RESPONSE: See RESPONSES on these subjects above.

MTA FAQ: Are you considering street running at Metropolitan Avenue? How can you ensure reliable service with the potential of street running segments?
MTA:

- **“**One of the primary benefits of LRT is its ability to operate in multiple environments, including on a dedicated rail corridor and within the local street network.”
- **“**MTA does not believe that a properly engineered street running alignment would reduce speed and reliability.”

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27 *See* articles listed in note 16, *supra*.

28 *Id.*

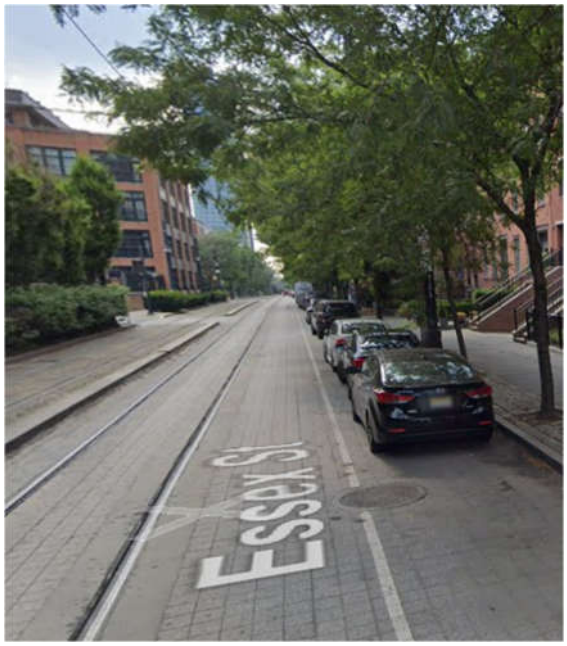
- **“**Examples of on-street light rail operations can be found around the world, as far away as Melbourne, Australia and as near as Jersey City. In these locations and many others, trains operate safely and efficiently in street environments with appropriate signaling and roadway treatment.”

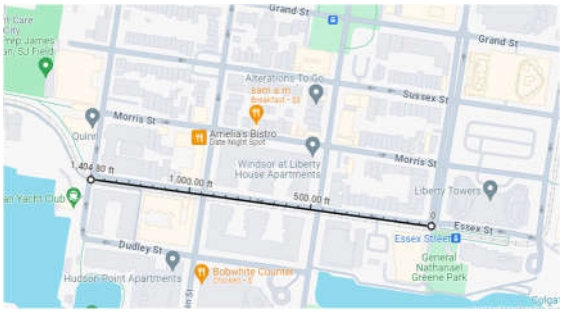
RESPONSE:

- The principal, distinctive features of Light Rail Vehicles are their relatively short, articulated sections, which permit sharper turns than longer, conventional railcars, and low floors, which permit easier boarding from street-level stations.
- The proposed IBX right-of-way does not include such sharp turns or street-level stations.
- Even a properly engineered street running alignment would have reduced speed and reliability, as compared with a dedicated right-of-way.
- The MTA’s proposed street-running route and frequency of trains are likely to reduce speed and reliability, for example, because of blockages by left turns of the LRVs and other vehicles, and the relatively high levels of motor vehicle and pedestrian traffic.
- One Middle Village resident has commented to the MTA, “During rush hour, it's faster to walk from 69th street to the M train stop than it is to drive or take a bus. What should take thirty seconds or a minute at most might take five or six minutes.”[29]
- The MTA has not shown that the proposed IBX street-running situation is comparable to others it has mentioned.
- For example, in Jersey City, LRVs share a street with motor vehicles only on a straight run for about three blocks (1,400 feet), along the sleepy, four block long Essex Street. (*See* photo and map below).[30]

29 MTA IBX Comments Compilation, Comment 230214-000000.

30 From Google Maps.





- In contrast, the MTA's street-running route is approximately 2,750 feet long with five in-street turns, including two left turns when LRVs are running north and three left turns when running south. (*See* first map above). One section runs on Metropolitan Avenue, which is a through truck route with no nearby alternatives. The route passes several schools.[31]

CONCLUSION

The MTA should withdraw its FAQs statements identified above and omit similar statements from future IBX materials.

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31 *See* my article Street-Running LRVs on the Interborough Express Line is a Bad Idea.

This article expresses the personal views of the author and does not express the views of his employer, or any client or organization. The author has degrees in law and physics, and has taken several engineering courses. After five years of work as an engineer, he has practiced law primarily in the field of patents for over 50 years, dealing with a wide variety of technologies. He is a life-long railfan and user of public transportation in the United States, Europe and Japan.