Philip D. Murphy, Governor
Sheila Y. Oliver, Lieutenant Governor
Diane Gutierrez-Scaccetti, Commissioner
Kevin S. Corbett, President & CEO

NJTRANSIT
One Penn Plaza East
Newark, NJ 07105-2246
973-491-7000

July 28, 2021

Dear Governor Murphy:

Pursuant to Chapter 150, Laws of 1979, I herein transmit the minutes of actions taken at the open session of the regularly scheduled meetings of the New Jersey Transit Corporation, NJ TRANSIT Rail Operations, Inc., NJ TRANSIT Bus Operations, Inc., NJ TRANSIT Mercer, Inc., and NJ TRANSIT Morris, Inc., Board of Directors held on Wednesday, July 21, 2021.

Sincerely,

Joyce J. Zuczek

Joyce J. Zuczek
Board Secretary

Enclosures

Honorable Philip D. Murphy
Governor, State of New Jersey
State House
Trenton, NJ 08625

Open Session Minutes of the actions taken at the regularly scheduled Board of Directors' meetings of the New Jersey Transit Corporation, NJ TRANSIT Rail Operations, Inc., NJ TRANSIT Bus Operations, Inc., NJ TRANSIT Mercer, Inc., and NJ TRANSIT Morris, Inc. conducted virtually by telephone on Wednesday, July 21, 2021. The meetings occurred concurrently.

Board Members

Diane Gutierrez-Scaccetti, Chair
Cedrick T. Fulton, Vice Chair
Lauren LaRusso, Governor's Representative
Dini Ajmani, Treasurer's Representative
James D. Adams, Board Member
Sangeeta P. Doshi, Board Member
Bob Gordon, Board Member
Richard A. Maroko, Board Member – ABSENT
Shanti Narra, Board Member
David A. Rasmussen, Board Member (Non-Voting)

Staff

Kevin S. Corbett, President & Chief Executive Officer (CEO)
Joyce J. Zuczek, Board Secretary
William Viqueira, Senior Vice President, Chief Financial Officer & Treasurer
Eric R. Daleo, Senior Vice President, Capital Programs
Jeannie Kwon, Senior Vice President & Chief Administrative Officer
Michael P. Kilcoyne, Senior Vice President, Surface Transit & General Manager, Bus Operations
Joseph E. Snow, Assistant Attorney General, Office of the Attorney General
Caroline Vachier, Deputy Attorney General, Office of the Attorney General

Chair Gutierrez-Scaccetti convened the Open Session at 6:01 a.m. in accordance with the Open Public Meetings Act. Board Secretary Zuczek conducted a roll call and noted Board Member Maroko was absent.

Board Secretary Zuczek announced that adequate notice of the regularly scheduled meetings of the Board of Directors of the New Jersey Transit Corporation and its affiliates and subsidiaries was provided in accordance with the Open Public Meetings Act and NJ TRANSIT's enabling legislation. Notices were filed on July 15, 2021 with the Secretary of State, sent to newspapers of general distribution, posted in the main entrance of NJ TRANSIT headquarters, published on the corporation's website, and sent to each individual, agency, and organization that requested such notice.

Approval of Minutes

Chair Gutierrez-Scaccetti asked for a motion to approve the minutes of the June 9, 2021 Board meetings. Board Member Shanti Narra made the motion, Board Member Bob Gordon seconded the motion, and it was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Yes	Absent	Yes	Yes	Yes	Yes	Yes

President & CEO's Monthly Report

President & CEO Corbett said as in previous months, he would begin with NJ TRANSIT's COVID-related statistics. He was pleased to note that the number of NJ TRANSIT employees currently positive with COVID-19 has once again decreased since the last Board meeting. There were 23 employees, out of approximately 12,000, currently positive for COVID, down from 36 at the last Board meeting. However, consistent with the rest of the state, those numbers are beginning to creep up a bit from their low earlier this month; a reminder that the pandemic is still not over, and they need to remain vigilant.

On a positive note, they were seeing significant ridership gains, in some areas, exceeding their initial projections. Average weekday rail ridership, which they reported last month had increased to 30 to 35 percent of pre-COVID levels, has increased yet again to approximately 50 percent over the past several weeks. Average rail ridership on weekends has climbed to approximately 80 percent on some recent weekends, up from the 40 to 50 percent they reported last month.

Intrastate bus ridership has risen to 60 to 65 percent of pre-pandemic levels, up from last month's report of approximately 55 percent. Interstate ridership into New York was up to approximately 50 percent, from 40 to 45 percent reported last month. Light Rail ridership was also up at approximately 60 percent of pre-COVID levels systemwide, from the approximately 55 percent reported last month.

President & CEO Corbett noted NJ TRANSIT has begun repopulating its offices, and it has been great seeing so many friendly, familiar faces back in the office. He said it really does make a difference to be in-person.

Last month brought additional indications that they were coming out on the other side of this pandemic. More than five million New Jerseyans are now fully vaccinated, surpassing Governor Murphy's ambitious statewide vaccination goals, and on June 4, 2021, the Governor officially ended the COVID-19-related public health emergency. This has resulted in the easing of restrictions on their transit system.

Last month, based on high state vaccination rates, new guidance from the CDC, and the TSA, and aligned with Governor Murphy's Executive Order 241 regarding outdoor public spaces, NJ TRANSIT lifted the requirement for customers to wear masks outside on the system. To be clear, the TSA's indoor mask requirement remains in effect, and masks are still required for customers indoors throughout the system, on NJ TRANSIT vehicles and within indoor stations and waiting rooms.

Additionally, something many have been asking about, all station waiting rooms that have been closed since the onset of the pandemic will be reopening on Tuesday, September 7, 2021. Waiting rooms with staffed ticket windows have been open since September 2020.

All these restrictions being lifted and eased are due, in large part, to the incredible progress New Jersey has made in vaccination distribution. As the Governor has continued to stress, they encourage everyone who has not yet been vaccinated to go get their shot.

President & CEO Corbett reminded them that NJ TRANSIT's VAXRIDE Program is still available for those who need transportation to an available vaccination site. By visiting njtransit.com/vaxride, they not only show how to get to vaccination sites throughout the state on transit, they also provide two free roundtrips, through their VAXRIDE program, so there is no longer any excuse to remain unvaccinated.

To remain aligned with the TSA indoor mask directive, on June 17, 2021 and yesterday, July 20, 2021, they held their seventh and eighth Mask Force distribution efforts, where employees throughout their organization volunteered at several stations, and onboard vehicles. To date, they have distributed nearly 100,000 masks overall, including masks distributed during all Mask Force events and at customer service and ticket offices throughout their system.

The NJ TRANSIT Police Department also remains out in force throughout the system, continuing to conduct their mask compliance details, and providing masks to anyone who needs one.

As they continue to make their system as safe and customer-friendly as possible, on June 30, 2021, they updated the policy on personal vehicles to allow e-bikes, e-scooters, and hoverboards aboard NJ TRANSIT vehicles. The use of these vehicles now falls under their existing bicycle policy, found at njtransit.com/bikes, which now details when and where such vehicles are permitted.

They believe this policy change will serve yet another way to encourage customers to come back to transit, while both supporting and facilitating the use of environmentally friendly transit options for first-mile/last-mile travel. It also reflects their vision and values, as they work in line with Governor's Murphy's Energy Master Plan and to support one of the five overarching goals in NJ TRANSIT's Strategic Plan, NJT2030, to promote a more sustainable future for our planet.

NJ TRANSIT received more good news for the environment last month, which supports and advances their commitment to transition to a 100 percent zero-emissions bus fleet by 2040. On June 25, 2021, NJ TRANSIT was awarded a $5.15 million grant from the Federal Transit Administration's (FTA) Low or No Emissions Grant Program to purchase new electric buses. These new buses will be in addition to their upcoming purchase of eight electric buses for their Camden deployment by the end of the year.

This new grant, along with a $2.2 million match, will go toward the purchase of an additional eight battery-electric buses, to be deployed on their number 25 line between Irvington and Newark. It also complements their plan to upgrade the Hilton Garage in Maplewood with charging infrastructure to accommodate new electric buses serving the greater Newark area.

President & CEO Corbett said the state is also helping to implement the necessary upgrades to the Hilton Garage, through a Memorandum of Understanding (MOU) with the New Jersey Board of Public Utilities, which was signed earlier this month. By way of background, in March 2020, NJ TRANSIT applied for an FTA grant of approximately $7 million to support their goal of a 100 percent zero-emissions bus fleet by 2040. In their application, they committed approximately $3 million, and the Board of Public Utilities in support of Governor Murphy's Energy Master plan, backed their application with an additional commitment of up to $10 million for the Hilton Garage upgrades.

NJ TRANSIT introduced another environmentally friendly initiative last month. Transit to Trails, which launched as an interactive, user-friendly web application, easily identifies the many New Jersey parks and green spaces accessible by public transportation. The site, njtransit.com/trails, links NJ TRANSIT services to more than 60 national, state, and county parks, encouraging customers to use environmentally friendly public transportation options when planning to enjoy the great outdoors.

Customers can search prospective destinations by park name or view a virtual map of the state with different park locations. Service options for each of these areas and directions are accessible from a pop-up that appears at each access point. Results feature bus, rail, and light rail options within two miles of the desired park throughout all 21 New Jersey counties.

President & CEO Corbett said what could be better as they emerge from the pandemic, than using NJ TRANSIT as a convenient and cost-effective option to access the great outdoors.

As they work to protect the environment, NJ TRANSIT continues to reinforce their commitment to safety as a top priority. As some may know, June was National Safety Month, which provided the perfect opportunity to celebrate their safety-related accomplishments and recommit to creating the safest possible travel environment for customers and employees.

President & CEO Corbett said they have plenty to celebrate this year, as many of NJ TRANSIT's safety-related statistics showed marked improvement. NJ TRANSIT's employee injury rate for all employees was down 20 percent since 2019. Reportable collisions continued to decrease on their bus and light rail systems. Bus collisions were down 20 percent, and light rail collisions are down 44 percent through the first half of 2021 compared to 2019. On rail, they had zero Federal Railroad Administration (FRA)-reportable mainline collisions, meaning throughout their entire passenger system, in 2019, 2020, and year-to-date.

President & CEO Corbett said it was no coincidence that in January of 2019, they hired Brian Lapp as the Chief Safety Officer, and he would be remiss if he failed to give him a big shout out for leading the charge on these improvements. Brian was recently named a Rising Star of 2021 by Progressive Railroading, and NJ TRANSIT is very proud of him, and grateful for his and his team's successful efforts to keep customers and employees safe.

President & CEO Corbett also wanted to thank all their employees, particularly bus, rail, and light rail employees, for taking safety so seriously and incorporating it into their culture of the daily work routines.

As part of Safety Month, NJ TRANSIT also published two new videos, both available on NJ TRANSIT's YouTube channel, to acknowledge all the employees who put safety first at all times, while coming up with new and innovative ways to make their system even safer. One video highlights the extraordinary efforts of employees to keep themselves, their families, and customers safe during the pandemic, including why they wear a mask and chose to get vaccinated. The other thanks employees for all their work to promote and improve safety at every moment throughout the year.

The videos are named "NJ TRANSIT Employee Thank You" and "COVID Safety: I Wear My Mask, I Got the Shot." President & CEO Corbett encouraged everyone listening to look on NJ TRANSIT's YouTube channel.

In addition to recognizing employees, they hosted various safety events throughout the month, some for employees, to reinforce safety strategies, and others for customers, to remind them of the importance of safety protocols when at a station, using mass transit, or even driving near railroad crossings.

Also in regards to safety, President & CEO Corbett was pleased to note that NJ TRANSIT has met all the conditions that had end-of-the-year deadlines, and for which they were solely responsible, laid out in the FRA's December 2020 certification of their Positive Train Control (PTC) project. All other joint conditions, to be completed in coordination with other railroads, remain on track to be achieved as prescribed by the FRA.

Another important objective for PTC moving forward is the standardization of the system across railroads throughout the country. There are currently more than five variations of PTC systems nationwide. For example, a train travelling between Raritan and New York

City must go through three different PTC systems: NJ TRANSIT's, Conrail's, and Amtrak's, posing significant interoperability challenges.

President & CEO Corbett said the future of PTC nationally is to have one, unified system for all railroads, some refer to it as "PTC 2.0," like the Federal Aviation Administration's (FAA) safety system for airlines. NJ TRANSIT is currently helping lead this effort by working closely with the FRA, the Northeast Corridor Commission, and other major commuter and freight railroads to establish this type of national standard for PTC.

President & CEO Corbett said it was also important to note that while PTC is up-and-running, it will still require significant and ongoing investments, as the FRA mandates additional enhancements. They are working with the FRA, Amtrak, and other rail industry leaders to determine the timing and potential funding sources for these investments going forward.

As part of both NJ TRANSIT's commitment to safety and efforts to leverage technology to improve every aspect of the customer experience, last month, they introduced a new, lifesaving partnership with the mobile traffic navigation app, Waze. Through this new partnership, drivers using Waze are now automatically alerted, both audibly and visually, through a banner on the app, when they near a railroad crossing anywhere throughout the state. This new feature should enhance NJ TRANSIT's efforts to keep these crossings safe.

President & CEO Corbett said they also continue to regularly update NJ TRANSIT's mobile app, adding features and functionality to improve the customer experience. In fact, many of these updates are the direct result of customer feedback.

Last month, they launched Map My Ride, which allows customers to track the location of their bus or train with a simple tap on their mobile device. Customers can now see the location of their bus or train, on a map, along with the estimated arrival time to their location.

The mobile app update also provides enhanced integration with the new NJT Rewards program, where customers earn points for deals and discounts at local businesses, which, incidentally, now has more than 60 participating businesses and more than 30,000 customers, up more than 20,000 since the last Board meeting. Customers can now use the mobile app to access other great deals, through their Deals and Discounts program, at njtransit.com/deals.

Finally, the upgrade improves bus and light rail mobile app ticket compatibility with new On-Board Bus Validators and Light Rail Platform Validators. Barcodes have moved to the top of mobile app tickets, making it easier for customers presenting digital tickets and passes in portrait mode, while accelerating boarding times.

President & CEO Corbett said regarding infrastructure, NJ TRANSIT continues to aggressively advance their ambitious $17 billion Capital Plan. As the adoption of their

Capital Plan update, along with the Fiscal Year 2022 authorization to secure capital funding, was on the agenda that evening, President & CEO Corbett took the opportunity to highlight four projects in the Plan, each with an upcoming milestone.

President & CEO Corbett said in November 2019, Board Chair Gutierrez-Scaccetti led the introduction of their Innovation Challenge to solicit transportation solutions to improve connectivity between Secaucus Station, MetLife Stadium, and the American Dream complex. The kick-off event was attended by 140 individuals representing 54 private public entities. In February 2021, they issued a Request for Proposal (RFP) to develop an inventive and original solution for their goal to provide more robust, and sustainable, public transportation across this critical transit link. They will be coming to the Board soon to seek authorization to award their selected design consultant to spearhead this effort.

President & CEO Corbett said they are also excited to continue advancing their Bus Garage Modernization project. They advertised an RFP for this project on May 25, 2021, with submissions received earlier this month, and they are beginning the process of evaluating these technical proposals. The RFP is for the Conceptual, Preliminary, and Final Engineering Services for Phase 1 of the program. Phase 1 involves the systemwide survey of all 16 garages and design and construction assistance services for the installation of charging stations at the Hilton Garage in Maplewood.

President & CEO Corbett said this was an extremely important component of their work in transitioning to a zero-emission bus fleet, in line with Governor Murphy's clean energy goals and statutory procurement deadlines. They anticipate being before the Board for authorization to award the Phase 1 contract this fall.

Despite the challenges posed by COVID, President & CEO Corbett said staff at NJ TRANSIT have been hard at work, particularly on those projects that can be transformative for some of their communities. One such project is the replacement and expansion of the Walter Rand Transportation Center in Camden.

President & CEO Corbett said the Murphy Administration is committed to the continued renaissance of Camden, and the Walter Rand Center is a critical component of this revival, not just for today, but to accommodate anticipated growth throughout Camden County. NJ TRANSIT released an RFP in April 2021 that not only allows for a phased approach, but also for an innovative public-private partnership to advance this project. NJ TRANSIT staff held a virtual pre-proposal conference and they anticipate seeking Board authorization to award a contract this fall.

President & CEO Corbett said, as a reminder, final bids for their $1.8 billion Portal North Bridge project are due on September 2, 2021, and they anticipate having an update on this important project at an upcoming Board meeting.

President & CEO Corbett said through the advancement of these projects, it is not hard to see how NJ TRANSIT has advanced billions of dollars in capital projects since 2018, even as other transit agencies across the country reduced or even suspended their capital

plans and projects amid the pandemic. In addition to the benefits to service reliability and the customer experience, these projects will also be integral to the state's economic recovery as they come out of the pandemic.

NJ TRANSIT proudly helped launch a new infrastructure plan undertaken by the Northeast Corridor Commission, at a press conference President & CEO Corbett attended last week at Moynihan Station in his role both as President & CEO of NJ TRANSIT and Co-Chair of the Commission. There, he joined Administrators Nuria Fernandez, Federal Transit Administration and Amit Bose, Federal Railroad Administration along with Amtrak President Stephen Gardner, and other members of the Commission to introduce a new plan that will significantly improve service along the entire Northeast Corridor.

CONNECT NEC 2035, or C35 as it is commonly referred to, is an ambitious, $117 billion plan that would transform and modernize the Northeast Corridor the busiest and most vital stretch of infrastructure in the country. This transformation is already underway through two of the most significant projects on the Northeast Corridor in a generation, NJ TRANSIT's Portal North Bridge Replacement Project and the Hudson Tunnel Project, which are both part of the overall Gateway Program.

While the Portal North and Hudson Tunnel projects are certainly critical, the Northeast Corridor is lined with aging assets from Washington D.C. to Boston, bridges, tunnels, and infrastructure dating back to the 1800s with track, signal, and power systems that are beyond their useful life. These aging assets are prone to breakdown and cause service disruptions and because the Northeast Corridor is such a complex and heavily used system, a delay for one train can mean rippling effects up and down the Northeast Corridor and beyond.

President & CEO Corbett said now, however, through C35, they have a detailed, comprehensive, innovative plan to ensure better service for their customers and region's success moving forward. When completed, C35 will achieve significant progress on improving service and eliminating the state-of-good-repair backlog, while keeping Amtrak and the region's commuter rail services running safely and reliably.

As they work to improve service, capacity, and reliability on the Northeast Corridor, they are also advancing complementary sustainability and smart growth Transit-Oriented Development along the corridor, as well. Last week, NJ TRANSIT joined with the Murphy Administration to announce the advancement of a major transit-oriented development project at their Metropark Station in Woodbridge, as part of their ongoing commitment to promote sustainable economic growth.

Last year, NJ TRANSIT solicited Statements of Qualifications and Expressions of Interest in 12 acres located directly adjacent to the Metropark Station. On July 15, 2021, they released an RFP to the four finalists who successfully submitted responses to that request.

The site is envisioned for transformative mixed-use development that will foster better access to employment centers and transportation, fewer greenhouse gas emissions, and a healthier, more environmentally friendly community. Metropark is one of the many transit-oriented development projects NJ TRANSIT is helping facilitate around the state, including: Morristown, Aberdeen-Matawan, Somerville, Orange, Jersey City, and along the River LINE and other locations throughout the state.

For NJ TRANSIT, the development of transit-oriented development communities not only means new opportunities to generate revenue by optimizing real estate values around their public transportation hubs, but also to meet the state's economic and environmental goals.

President & CEO Corbett wrapped up with another great example of a frontline NJ TRANSIT employee who went well above and beyond the call of duty. On June 28, 2021, a group of 21 children were on a school bus travelling over the George Washington Bridge, when two of the bus's tires blew out. The bus was disabled, and the school children were stuck on the bridge. The long wait for a tow truck began.

But luckily for them, NJ TRANSIT Bus Operator James Desir happened to be driving by, with an empty NJ TRANSIT bus, on his way to the George Washington Bridge Bus Station to pick up commuters for their homeward-bound journey. Bus Operator Desir drove over to the scene and, working with the Port Authority Police, loaded the children and chaperones onto his bus. He then drove them all safely to the George Washington Bridge Bus Station, where they could be picked up by their family members.

President & CEO Corbett said James Desir's actions on that day were outside of the normal duties of his job, but demonstrated the kindness, compassion, and commitment to service so many of NJ TRANSIT's employees exhibit every day. NJ TRANSIT applauds his quick-thinking and willingness to jump in and help the communities they serve.

Public Comments

Chair Gutierrez-Scaccetti asked the event call operator to open the floor for public comments and to provide instructions for entering the queue to make a public comment. The event call operator said the floor was open for public comments. If individuals wanted to make a public comment, they were instructed to press *1 on their telephone keypad to enter the queue. They would hear a brief tone to indicate they have successfully entered the queue. Priority access would be given to any participant who has pre-registered, and those comments will be taken in turn. They would then take public comments from the remaining participants on a first-come first-serve basis. Each person would have three (3) minutes for their public comment. A warning would be provided with one (1) minute remaining and again with 15 seconds remaining.

Sally Jane Gellert, Chairperson of the Lackawanna Coalition said last month she mentioned that the Lackawanna Coalition Secretary Daniel Chazin reported on the continuing saga of the 12:49 p.m. train to Middletown. The confusion was caused by a

12:45 p.m. and 12:49 p.m. train on the same track in Secaucus Junction. Ms. Gellert said they discussed the issue and decided the solution might be to move the 12:49 p.m. train across the platform. She said Randy Glucksman, MTA Rockland County Rider Representative offered to make some calls and shortly thereafter learned that the switch had been made and the situation had improved. Ms. Gellert said they thank NJ TRANSIT for quickly implementing this common-sense solution to make riders' days a little easier, and thanked Randy Glucksman for his efforts. She also emphasized the value of working together to find solutions and hoped everyone considers themselves a part of the transit team to ensure the system works as well as possible, and as always, they are willing to offer their advice and feedback.

Another problem of concern was on the Atlantic City Line report where one of the Philadelphia trains does not complete the trip and the final leg is made on a substitute bus which leaves passengers across the complex intersection from the 30th Street Station without even a traffic light. She said this was very difficult for those with limited vision or mobility issues, and passengers required to transfer to a bus should not be further challenged by their drop-off location. She encouraged NJ TRANSIT to work with station management to come up with a better solution.

Ms. Gellert said she was late in submitting her written presentation which will be sent shortly which includes a chart of New York City office occupancy that shows a slight uptick in occupancy rates that are only 20 percent of pre-pandemic levels. She said this is not unique to New York, Boston, and San Francisco regional systems. She said others are running more consistent service all day minimizing the rush-hour concentration of service and spreading trains out throughout the day. Ms. Gellert said office occupancy will rebound as President & CEO Corbett mentioned, and the weekend rail service is 80 percent normal and at a greater increase during other times. They see great benefit in increasing service around the clock enabling more people to use transit for more than just getting to and from work.

Ms. Gellert said rather than approving an actual budget, today's item is a continuation of operating expenditures, which is certainly better than cancelling trains and buses while the budget is finalized, but is no way to run a government or transit agency. They look forward to NJ TRANSIT having a more predictable funding source and a more stable financial picture. *North Jersey News* reported that Moody's has upgraded the state's Credit, including a positive outlook on the Transportation Trust Fund debt. Ms. Gellert said they were pleased by this outcome on Moody's upgrade, but know that the state drastically cut NJ TRANSIT's subsidy. She said as always, the Coalition supports dedicated funding. Ms. Gellert suggested checking the multi-level car windows and wheels because they need maintenance.

Ken Dolsky, Member of the "Don't Gas the Meadowlands' Coalition said the most significant issue that is going to determine the degree to which the NJ TRANSITGRID project uses renewable energy is the availability of space for solar panels. Mr. Dolsky said they have raised this issue repeatedly and yet NJ TRANSIT has given them no reason to believe that they are addressing any aspect of this issue as any customer

requesting bids on solar power would normally do. He said when the Coalition encouraged NJ TRANSIT in 2019 to address this with potential bidders the response was, this is something renewable energy providers should work out on their own. Mr. Dolsky said this is an extremely complex project and the solar power needed will make this project the largest solar project in the State by a considerable margin. NJ TRANSIT will likely require 90 megawatts or more power given the geography and development of the area. Mr. Dolsky said many sites will be required for solar production, and determining the applicability of each site is a project all by itself, and projects like these require close collaboration between providers and buyers, because many issues will arise that will require evaluation, tradeoffs, and decisions by both parties.

The Coalition needs to understand what NJ TRANSIT is doing in this regard, either the buyer or provider cannot do this by themselves. They all need to participate cooperatively and proactively. NJ TRANSIT must describe its overall plan to address the solar site issue. He said they expect NJ TRANSIT to claim this is confidential under the procurement rule. Mr. Dolsky said they are not looking for specific information on any property, they just want to know how NJ TRANSIT plans to handle this; will NJ TRANSIT be doing a preliminary study; overhaul of sites in the area; will NJ TRANSIT be analyzing its own options or will NJ TRANSIT be asking bidders to do their own analysis. He said they would be very concerned if NJ TRANSIT said they are not going to provide any information to help the bidders with this aspect of the project. Mr. Dolsky said if this is the case, it would be a very poor approach and much more difficult for bidders to provide high quality and realistic proposals incorporating solar power that will lead to a suboptimal renewable energy solution. If no information is provided on this issue, Mr. Dolsky said they would have to assume NJ TRANSIT is doing nothing.

Andy Weiss said NJ TRANSIT does not have a Regional Fare Card because they operate on a stand-alone conduit system. He said there should be a Regional Fare Card which is used all over the country, and it was recommended by the NJ TRANSIT Audit, Chapter Five, Page 99. Mr. Weiss said four North Jersey Transportation Planning Authority (NJTPA) studies recommended a Regional Fare Card. He said the NJTPA studies conducted were Plan 2045, NJ TRANSITGRID and Newark Bus Study, Northwest New Jersey Bus Study, and Go Farther 2027 Bus Study which all recommended a Regional Fare Card.

Mr. Weiss said he wanted this documented in the meeting notes that Governor Murphy's own NJ TRANSIT Audit recommended the Regional Fare Card. He could not understand why NJ TRANSIT was staying with the conduit stand-alone method when PATH is moving to the OMNI System in 2022. He said NJ TRANSIT needs to connect with this OMNI System as well so everyone can have one Regional Fare Card. Mr. Weiss said the Regional Fare Card makes sense because it is being used all over the nation. He said a NJ TRANSIT study was conducted in 2010 with the MTA and PATH which was called Ride NY/NJ which was said to be successful by the Port Authority and former NJ TRANSIT Executive Director, James Weinstein who made a video saying this would be a giant step for transit. Mr. Wiess said the Regional Fare Card would also bring in more federal money and passengers, which was also stated in NJ TRANSIT's Audit.

Samantha DiFalco, Representative for Food & Water Watch spoke on behalf of her members and supporters. She thanked NJ TRANSIT for their ongoing interest in energy and sustainability and transitioning the NJ TRANSITGRID away from a full-time natural gas power plant, and hopefully towards a 100 percent renewable energy project. She echoed the concerns of the previous speaker, Ken Dolsky, about the lack of information on solar sites, and in order for this project to be done successfully, it is critical that bidders get information from NJ TRANSIT about the use of solar siting in the Kearny area, and on NJ TRANSIT property. Ms. DiFalco said the public needs to be told how this is going to be conducted and shared with bidders.

William Dailey is a 77- year old disabled rider of NJ TRANSIT and loves taking the train. He asked if there were any regulations or protocols for train conductors assisting the disabled. Mr. Dailey often lifts his wheelchair up on to the double-decker trains easily, but with the single-level trains, it is more difficult because a person is in a small space and must press the door open button. He said it is hard to maneuver throughout the train. On some occasions, he missed his stop. Mr. Dailey said there are times when a train pulls into Secaucus, he lets everyone get on before him and noticed conductors in the different areas that are standing outside the train. He said when he gets to Hamilton Station, he does not have the opportunity to look up and down to see if the conductors are outside looking for incoming or outgoing passengers.

Mr. Dailey said a month ago he was on a single-level train and got up when the train stopped, pressed the door-open button, and as he got through and was about to exit the train, the door closed on his wheelchair twice. A conductor came and took out a key to assist. He asked if there is a protocol for NJ TRANSIT conductors to assist a disabled person on and off the train safely.

Chair Gutierrez-Scaccetti asked the Operator to obtain Mr. Dailey's contact information so that Senior Vice President of Communications & Customer Experience, Anthony Grieco could contact him directly. The Operator said he would gladly provide Mr. Dailey's contact information.

Rachel Davis spoke on behalf of Waterspirit, which is a non-profit Ministry of the Sisters of St. Joseph. She said given the repeated messages from the strong effort calling for renewable solar sites, she too was curious in NJ TRANSIT's response on this issue. Ms. Davis said she wonders if there was a rationale for choosing to hold off on renewable energy being a very clear part of the beginning of the process for bidders. She also asked will the people overseeing this project be sure renewable energy is the source and wanted to know was this the plan. She said solar can be patch-worked and creatively installed when paired with other technology, reducing the wasting life-giving source that is water. Ms. Davis said the climate emergency is here, and they must make sure the young people have a viable future, so projects like this, that really have a chance of being 100 percent solar mixed renewables, surely cannot be too difficult to do. She urged NJ TRANSIT to describe its overall plan for addressing the solar siting issue.

Elizabeth Ndoye, Member of the "Don't Gas the Meadowlands" Coalition and resident of Hoboken said she was frustrated because several months ago NJ TRANSIT was committed to stopping the construction of the fracked gas power plant in Kearny, which is minutes from her home. Ms. Ndoye said she has lived there for 40 years and many of her friends and neighbors live in this area or areas surrounding this city. She believed in NJ TRANSIT's promises to build an alternative energy power plant to protect the lives of many innocent and vulnerable people, but since then has begun to doubt the strength and sincerity of this commitment. Ms. Ndoye said they have repeatedly asked NJ TRANSIT to release the availability of solar sites in the surrounding land of Koppers Coke, only to be told this is not a job for NJ TRANSIT, but a responsibility of the bidders making their renewable energy proposal. She said some solar siting can be done on NJ TRANSIT property but would not be nearly enough.

NJ TRANSIT must work with both private and public entities that own adjacent rooftops and properties to locate enough space to create solar sites to generate the necessary amount of required power. Ms. Ndoye said this type of research and business is outreaching and networking, which is a major undertaking in itself, and should not be an additional requirement of the environmental engineers attempting to create the clean energy plan to power NJ TRANSIT's resiliency plan. She said landfill is immediately adjacent to the Koppers Coke site. She asked if NJ TRANSIT could co-partner with the New Jersey Sports & Entertainment Authority and find ways to place solar panels on this unused land. The Coalition calls on NJ TRANSIT to do the right thing and use all ground fields, industrial, landfills, and parking lots available to create this alternative energy plant that is required. Ms. Ndoye said there is only 10-years left to put the brakes on this climate crisis, so action is needed now.

Tim Sevener of the New Jersey Association of Rail Passengers and Supporter of "Don't Gas the Meadowlands" said his first issue was with solar siting. He commended William Dailey, the rail passenger who spoke earlier about protocols for train conductors assisting the disabled. Mr. Sevener said there have been approximately 21 station improvements where there will be raised platforms. He said at the Metropark Station there are 12 acres of transit-oriented developments (TOD), which is a perfect spot to put solar that could be part of the NJ TRANSITGRID energy supply. Mr. Sevener said a solar tunnel also could be done coming into Newark Broad Street on the Boonton to Morristown Line where solar panels could be put above like the Belgium solar tunnel.

Mr. Sevener said next to Orange, New Jersey, transit-oriented developments would be a good place for solar sites also but was concerned because none of them are affordable housing units. Mr. Sevener said that Route 280 next to transit-oriented developments provides acres of land where a solar tunnel could be done, and solar panels would go below ground. He said there were recommendations for a Newark/Paterson Light Rail, which could also provide a space for solar panels. Mr. Sevener said there was also a project that NJ TRANSIT should be asserting their rights on, which was the Essex Hudson Freeway and should preserve this rail right-of-way for rails with trails that goes through Jersey City, Secaucus, Kearny, Newark, Belleville, Bloomfield, Glen Ridge, and Montclair.

Adam Reich asked for an update on the Customer Advocate position and the Customer Advisory Board and asked for target dates for filling these vacancies. He also asked if there is any effort that can be made to engage those that applied to these positions once before. He said if the Board could not provide any target dates for addressing these items tonight, can they at least get a concrete commitment by the September Board meeting.

Mr. Reich said on the Metropark Transit Oriented Development, it is imperative that NJ TRANSIT coordinate with stakeholders, and the developer at the State Department of Transportation on needed improvements in this area. Mr. Reich said the key improvement that should be made with the development is the additional sidewalk along Route 27, connecting towards residential areas north of the station. He said right now, any pedestrian going between the station and the residential area along Route 27 must walk on the shoulder or in a grassy area behind the guard rail. Mr. Reich said sidewalks should be included in this project in the future. It should be done in a way that preserves space for a future right-of-way and station improvements, including strengthening the Northeast Corridor Line at this location and adding island platforms to serve all four tracks of the station, and adding an additional pedestrian tunnel or new bridge to improve passenger circulation at the station. Efforts should also be made to look at traffic circulation to see if anything could be done.

Mr. Reich said mask enforcement is another important issue on the Northeast Corridor Line. He said on off-peak and reverse-peak train crews have the ability to close off cars, and often you will see crew members disappear into these cars, which mean they are not there to enforce the mask policy, and they cannot easily be brought in to resolve these issues. He suggested that NJ TRANSIT temporarily replace quiet cars with mask priority cars and have a crew member posted there when needed or give them a dedicated location for those with legitimate concerns about unmasked passengers. He said train crews need masks to provide to customers because on Monday he was on a train where a passenger got on in New Brunswick and did not have a mask. One of the riders provided the passenger with a mask, otherwise they would have had to share their space with an unmasked rider. He said NJ TRANSIT Police Officers should be put on more trains to enforce the mask mandate. Mr. Reich said there was another incident where he asked a passenger to put his mask on, and the crew would not intervene, so he got off that train because he did not feel safe.

Talia Crawford, Organizer for the Tri-State Transportation Campaign said she looks forward to working with NJ TRANSIT and riders to make sure service is more reliable, affordable, and accessible. Ms. Crawford said as they enter this new fiscal year, they would like to emphasize the instability of continuing the practice of capital transfers to the operating budget to pursue preventative maintenance projects. She said capital projects have cumulatively resulted in a loss of over $10 billion dollars delaying expansion and new infrastructure projects like the electric bus fleet. Ms. Crawford said continuing with these raids, even though they are lower than they have ever been, will stifle the agency, and without identifying dedicated and sustainable operating funding, riders will continue to be the one to carry the burden of fare hikes and service cuts. NJ TRANSIT needs

stable and dedicated revenue to meet its operating and capital needs, especially for those projects identified in the Five-Year Capital Plan.

Ms. Crawford urged a swift resolution for the Federal American Rescue Plan Act (ARPA) funding discussion between New York, New Jersey, and Connecticut that is currently holding up the disbursement of funds. She understands and appreciates how critical the emergency federal funding is for all States and are hoping there will be a fair and equitable resolution that does not expose NJ TRANSIT riders, especially those that are transit dependent to service cuts or fare increases. Ms. Crawford said NJ TRANSIT must get the proper funding that the federal delegation fought hard to bring back to the State.

Ms. Crawford applauded NJ TRANSIT for pursuing the Trans-Hudson Interstate Survey and looks forward to having an ongoing dialogue, specifically focusing on the recovery of transportation in a post-COVID world and the connectivity to the intrastate and mobility throughout the region.

Doug O'Malley, Director of Environment New Jersey representing more than 80,000 members and activists across the State said everyone has already heard the importance of NJ TRANSIT needing a dedicated source of funding. Mr. O'Malley said Senate Majority Leader Loretta Weinberg made it crystal clear along with more than ten other Legislators urging the Legislative leadership as well as the Governor to work to end the raids of the capital to operating program that existed for too many years at NJ TRANSIT. He said the FY2022 budget has been passed and yet these ongoing raids continue. He said as a reminder, this has been going on for generations where $10 billion dollars has been raided, and this is how the agency has had to deal with the needs of capital expansion.

Mr. O'Malley said it was also critical to acknowledge that this is not sustainable, and they are thankful that ridership is starting to rebound as President & CEO Corbett mentioned. He said the pandemic will permanently alter the employer-employee work pattern throughout the State and in New York, and their concern is even a loss of 20 percent in NJ TRANSIT's ridership would equal an annual budget hole of $200 million. This is obviously the best argument why the agency needs dedicated funding and why we need to end the raids of the clean energy fund. Mr. O'Malley was heartened by the comments that the $82 million will be focused on the electric bus fleet, which is a critical need that will require additional capital dollars above and beyond the $82 million.

Mr. O'Malley said he would be remiss if he did not say the Tri-State Region is engaged in a game of chicken. He said the MTA is playing fast and loose with the federal dollars from the American Rescue Plan Act (ARPA) as well as the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA). The pandemic has been a setback to all public transportation systems around the region, and the States should all be working together to achieve more federal funding. He said instead, New York and the MTA are essentially playing a game of hostage by daring New Jersey and Connecticut to accept a new formula that no other state has accepted and that is not in the Federal Transit Administration guidelines. Mr. O'Malley said they are very thankful for the work of this

Board and the DOT Commissioner Diane Gutierrez-Scaccetti for fully standing up for New Jersey and standing up to New York, and for the support of Senator Booker.

He said there is no reason for New York to hold this funding hostage when the States should be working together, and New York needs to get its act together and stop playing chicken. This is a time when everyone needs to be actively advocating for funding from the federal government as part of the infrastructure package, to ensure that public transit and NJ TRANSIT will be here stronger, not only this year, but in the years to come.

Matt Smith, Director of Food & Water Watch addressed the NJ TRANSITGRID project, specifically, the lack of any solar siting plan. He said this has been quite a long journey for many of them in terms of the progress that has been made on this project, going from what looked like a major power polluting power plant that was going to run full-time in an environmental justice community. Mr. Smith said there is an opportunity to build a state-of-the-art renewable energy technology project to the maximum extent possible and to protect public health after a deadly pandemic and respond adequately and boldly to a climate crisis. He said there is greater urgency to act, and what they have seen since this commitment, has been a lack of meaningful engagement and a lack of information.

Mr. Smith said the solar siting issue is nothing new, and in 2019, the “Don’t Gas the Meadowlands’” Coalition provided NJ TRANSIT with a free-of-charge citizen conducted Solar Siting Plan, which identified sites along NJ TRANSIT properties and rights-of-way and other locations where solar could be sited. Mr. Smith said this was a lot of work done by volunteers, and to date have never received any confirmation that NJ TRANSIT has reviewed this work or found it a viable resource. They also have no information on whether NJ TRANSIT is doing this on their own about solar sites.

At this point, Board Member Gordon left the meeting.

William Ritzler said on July 17, 2021, he attended a concert at the BB&T Pavilion on the Camden Waterfront and used the River LINE to travel to and from the venue. He said the inbound trip was uneventful; however, the outbound journey proved to be problematic after 9:30 p.m. when a major rainstorm hit the area continuing for over an hour. Mr. Ritzler said when the event concluded, members of the concert audience made their way through the stormy weather to the River LINE. After 30 minutes, River LINE passengers on the station platform were informed by the NJ TRANSIT Police that service was suspended and that passengers would need to wait for a replacement bus service. After 10 minutes, a single bus arrived and quickly filled. Although passengers were told multiple buses would be available, the same bus returned after 20 minutes and filled up again and they experienced more delays, while attempting to board a passenger using the wheelchair lift.

Mr. Ritzler said because the driver of Bus No. 5588 attempted to board the passengers from the street instead of curb-level, the lift was unable to function properly and intervention by NJ TRANSIT Police Officers was required to board the wheelchair passenger. While he understands that major weather events have been occurring and

create significant impact on transit operations and facilities, it has also been his understanding that the River LINE service disruptions between Walter Rand Transportation Center and the Entertainment Center have occurred for years nearly every time there is significant rainfall. He said the outcome of NJ TRANSIT's response in this instance was unacceptable, and the culture of the organization should be something greater than a best effort approach. Mr. Ritzler asked the Board to use power and responsibility of the oversight assigned to it, to make sure that this type of service disruption is reduced, and the response is significantly improved. Mr. Ritzler spoke on his own behalf rather than as a former rail advocate but wants NJ TRANSIT to be the best that it can be.

Brian Fritsch, Manager for Advocacy Campaigns for the Regional Plan Association, a 100 year-old research advocacy non-profit said he thinks we all know what NJ TRANSIT means to the State as a vehicle for equity, as an economic engine, and a large part of the climate crisis solution. He recognized the pivotal role it plays for the State and region and applauded NJ TRANSIT for fully articulating its needs via the Ten-Year Strategic Plan and first Five-Year Capital Plan. He said these documents ensure the agency can modernize and deliver reliable service all residents deserve. Mr. Fritsch said it is a critical time to invest in the transit infrastructure needed for the future. Yet, unlike comparable sized transit systems around the country, NJ TRANSIT is not supported by a dedicated funding source and is forced to use its capital funding for day-to-day operations. This practice perpetuates a cycle of disinvestment and deferred maintenance that takes an ongoing toll on riders through delays and inadequate conditions on buses and trains.

Mr. Fritsch said while they were very pleased to see the NJ Turnpike Authority make a significant commitment to funding NJ TRANSIT this year, it is simply not enough. While the action helped reduce the capital to operating transfers by approximately $100 million annually, there is still a significant gap that must be closed to fully support the agency. He hopes all members of this body will actively support the following two major goals and ask State government officials to do the same. First, identify and establish dedicated ongoing funding sources that divert the use of capital clean energy dollars to fill operating budget gaps. These funds should also meet structural increases and transit operating costs that result from established labor contracts, inflation, and other price increases. Second, also fully fund NJ TRANSIT's Ten-Strategic Plan and Five-Year Capital Plan and ensure dedicated funds are directed to operating and capital budgets. Mr. Fritsch said it is essential that we prioritize these efforts and invest in transit over the long term so the agency can effectively plan for its future, and if not, it will not achieve the sustainability, equity, and economic development goals that the State has prioritized. Mr. Fritsch looks forward to working with everyone to make this a reality.

Anna Leone thanked the Board Members for their dedication and service. The topic she addressed was regarding Access Link for the Disabled. She was very thankful that NJ TRANSIT has Access Link but admitted that the program needs to be overhauled and re-evaluated. She discovered there are many routes that the NJ TRANSIT bus line operates; however, Access Link will not travel because she was told they were commuter routes and finds this discouraging.

Ms. Leone has lymphatic treatments three times a week and the facility is three miles from her home and Access Link will not go down Kinderkamack Road, which is a major roadway that houses a lot of Medical Facilities and Doctors' offices. Also Access Link will not go to Pascack Valley Hospital and when she was there, she saw five buses pass the facility and was told they were commuter buses. Ms. Leone said for NJ TRANSIT to better serve the disabled community, it needs to re-evaluate the Access Link Program. Ms. Leone finds it disheartening that she can take a bus to Atlantic City but cannot take a bus three miles down the road to receive medical treatment. She asked that someone please check into this, especially since some towns are no longer offering services for the disabled due to the pandemic. Ms. Leone applauds Access Link and thinks it is a wonderful program and knows they are having difficulty hiring people. She said when making a reservation via telephone, it takes one hour and twelve minutes.

Chair Gutierrez-Scaccetti asked the Operator to obtain Ms. Leone's contact information so that Senior Vice President of Communications & Customer Experience, Anthony Grieco could contact her directly. The Operator said he would gladly provide Ms. Leone's contact information.

Board Secretary Zuczek announced that Board Member Gordon apologizes, but he had to leave the meeting due to a previous commitment.

Board Member Comments

Board Member Adams thanked the speakers for taking time out of their day to comment. He said as a member of the Energy & Sustainability Policy Committee they take the comments on the NJ TRANSITGRID to heart and is sure they will get back to the public in a timely manner.

Board Member Adams said regarding the capital to operating transfers, they will speak on this later during the meeting. He was glad that the Board Chair acknowledged the two speakers who had individual complaints about bus routes. Board Member Adams again reminded the speakers that the Board does take all public comments seriously, even though they might not individually address each speaker. Board Member Adams appreciated the time spent on each comment.

Board Member Doshi thanked the public speakers for their comments. She also thanked all of the employees that President & CEO Corbett mentioned who were working extra hard and went beyond what is in their job description to make a video showing they were vaccinated and promoting mask wearing and appreciated everyone for doing so. She also thanked the bus driver who helped the children that were stranded on the bus on the bridge. She said as a member of the Energy & Sustainability Policy Committee, they are looking into renewable energy and have been discussing a lot surrounding solar panels and are taking everyone's comments seriously and will check into it. Board Member Doshi said NJ TRANSIT is also very committed to being environmentally friendly and wanted to highlight the "Transit to Trails" initiative to get from NJ TRANSIT stations to outdoor

spaces trails, and they look forward to working with advocates and stakeholders in the future.

Board Member Narra thanked Mr. O'Malley and the other public speakers and said she thought Mr. Dailey would be pleased once he receives a call from Mr. Grieco and the Board and staff needs to hear about issues like these.

Board Member Narra addressed several speakers concerns that talked about the need for NJ TRANSIT to have a dedicated funding source. She said Board Member Gordon has spoken of the need for a dedicated funding source as well as many of the other Board Members and they share everyone's concern. She said when they have the opportunity to speak to the Legislators, they urge them to focus on this issue for the long-term health of transit in the State and for the residents, and this is very much a focus of theirs as well.

Board Member Narra referred to Matt Smith's comment about a citizen conducted solar siting plan and missed when this plan had been submitted. She asked if staff could provide a copy of this plan to the Board for discussion because she knows others on the Committee, such as Board Members Gordon and Doshi who would be interested in seeing this as well. She said it is good for everyone to have this information to review. Board Member Narra referred to Mr. Weiss' comment about the Regional Fare Card and said she will do research on it. Board Member Narra said while she understands what Mr. Weiss said about the audit and four planning studies that recommended this Regional Fare Card, she will do some more independent research and maybe they can have a discussion about where this stands within the agency now.

Board Member Rasmussen thanked the public speakers for their time and their comments.

Board Member LaRusso echoed the other Board Members comments on their appreciation for the time the public speakers took to make comments. She also said they listened to the comments on the NJTRANSITGRID and those on mask enforcement and knows it is not easy for staff and appreciates everything staff is doing. She also appreciated President & CEO Corbett's comprehensive report. Board Member LaRusso said she also noted comments that were made on federal funding and money from CRRSAA.

Vice Chair Fulton thanked all the public speakers and said his colleagues have addressed these issues well. He said the way they have addressed them demonstrate the extent in which they as Board Members take these matters to heart and appreciate hearing about them. He knows how important the NJ TRANSITGRID is, and they are all focused on it. He also recognized the need for consistent funding, which they all long for and will continue to focus on. He said there were three different types of issues that were talked about tonight, and the Board Chair appropriately focused on them and would add to this list the issues associated with the River LINE and the rainstorm which is important and something to check into, especially if it is predictable. Vice Chair Fulton again

thanked the public speakers and looks forward to working with his Board colleagues to address these important issues.

Chair Gutierrez-Scaccetti appreciated the public speaker comments as well as the comments from her Board colleagues.

Written Statement Submitted In lieu of Speaking

Tracy Schoenberg, Commerce & Industry Association of New Jersey (CIANJ), submitted a written statement in lieu of speaking at the meeting. Ms. Schoenberg recognizes that mass transit is a key economic driver and is critically important to New Jersey's financial health. It is a known fact that for every dollar invested, the yield is five to one in return and every $1.0 billion invested in transit produces nearly 50,000 jobs. For these reasons, CIANJ respectfully requests that the time has come for a dedicated source of funding to be invested in NJ TRANSIT. The reliance on ridership to generate revenue or to transfer funds from the capital budget to the operating budget is a band-aid approach that has not and does not work. New Jersey is one of the only States in the nation that lacks a dedicated source of finding for its mass transit system – yet it is one of the largest agencies in the country.

The pandemic has devastated many areas including mass transit. Everyone is mindful that with fractional ridership for the last year and a half that NJ TRANSIT finances are in an even more difficult position than they were prior to March 2020. Federal aid and recovery money have been true blessings to fill in the necessary gaps to get the system back for the many who are returning to their commute. However, these federal funds are temporary – future budgets cannot rely on these amounts beyond the next year or two and there is a need to actively seek ways to replace these monies. The State Legislature missed a once-in-a-lifetime opportunity to create a dedicated source of funding in their FY2022 budget. It was a golden opportunity to make a continuous investment in a system that is critical to the infrastructure and has proven to be a great investment with a five to one return. While the recent Memorandum of Understanding with the NJ Turnpike Authority is applauded, there is language in that agreement which could end or restrict the contribution to NJ TRANSIT if the Turnpike Authority so chooses.

It is time for one of the largest transit agencies in the country to stand on bedrock and not on shale -- a direct funding mechanism for NJ TRANSIT must and should be created.

Advisory Committee Report

Suzanne Mack provided the Advisory Committee Report. She said from a citizen advocate point-of-view it would almost seem like everything is getting back to normal. Ms. Mack thanked everyone for all their efforts in getting NJ TRANSIT to where it is today. Ms. Mack addressed the public speakers and said although the Board cannot answer every issue from the dais, one of the reasons the Advisory Board attends these meetings is that they take notes and communicate back to their Committees on many of the issues. She heard a follow-up on the audit, customer advocate questions, dedicated

funding, and Access Link and disability issues. She said on the last two issues their Committees have been very involved. Ms. Mack wanted the public speakers to know when they come to a meeting and express their concerns, people in the organization follow-up.

Ms. Mack said they had a Joint Advisory Committee meeting on June 23, 2021 and their key presentation was on Marketing, which many people do not always think about when there are so many other things to focus on around transit. Ms. Mack said the Marketing Department is focusing on getting commuters back to pre-COVID levels and they have designed a wonderful program called “While You’ve Been Away”. This is a very interesting name which is very inspiring to current and lapsed riders’ confidence and attracts new riders to the system with the offering of new programs such as, FLEXPASS, VAXRIDE, and NJT Rewards Program. She said her Committee thinks these are wonderful ways to reward customers with loyalty and get people interested in coming back to the system. Ms. Mack said one of the Board Members mentioned the NJ TRANSIT Rails to Trails initiative which was wonderful and what everyone needs right now is the outdoors. Ms. Mack said the most important initiative was VAXRIDE, which is highlighting the current NJ TRANSIT service to vaccination sites. Ms. Mack said even though New Jersey is doing very well and better than most States as far as getting the vaccine, it still has a long way to go.

Ms. Mack also mentioned some of the other issues such as the Metropark Transit Oriented Development (TOD) project which has 12 acres adjacent to Metropark. She said this program was important because it will focus on transit-oriented development and help get back the economic engine necessary for transit.

Ms. Mack said President & CEO Corbett is involved in a very important initiative on the Northeast Corridor Commission, which released their 15-year plan about the improvements to the Northeast Corridor called “CONNECT NEC 2035, which is a $117 billion plan with 150 projects to replace infrastructure and speed up travel times. Ms. Mack said there is a need to continue to strengthen the infrastructure along the corridor in the region.

Ms. Mack said her Committee helped put together the bicycle policy for NJ TRANSIT and they were very pleased this month to see they can now have e-bikes, e-scooters, and hoverboards on the buses and light rail thanks to regulations being changed on lithium batteries.

Ms. Mack said people spoke about the need for dedicated funding and has heard this for decades. She said the federal delegation is working hard, Senator Booker, and Senator Melendez to name a few. She hopes that the federal delegates will be able to work on New Jersey getting its fair share of the emergency ARPA funding and not lose billions and follow the Federal Transit Administration guidelines on what money NJ TRANSIT should receive. Ms. Mack thanked the Board and NJ TRANSIT for all they do supporting the residents and citizens of New Jersey.

Senior Citizen and Disabled Resident Transportation Advisory Committee Report

Philip Harrison provided the Senior Citizen and Disabled Resident Transportation Advisory Committee Report and appreciated the opportunity to address the Board. Mr. Harrison said the New Jersey Legislature has designated their Committee to advise and inform NJ TRANSIT on accessibility issues that may affect seniors and people with disabilities regarding public transportation in the State. He said he could speak from personal experience on the great benefits that the County paratransit system and Access Link bring to the seniors and people with disabilities of New Jersey. Mr. Harrison said he has had the benefit and pleasure of utilizing Access Link and two of the County Systems, namely Cape May's Fare Free Transportation and the Atlantic County Transportation system for the past twelve years.

He said these systems allow seniors and people with disabilities to continue to live productive lives and enable them to contribute to society. As they emerge from this long debilitating pandemic, there are many challenges confronting these programs. Mr. Harrison said this will be exacerbated by the continual entry into this population as more citizens continue to reach senior status. Mr. Harrison stressed the importance of these systems to the citizens of New Jersey and urged the Board to continue to provide economic and logistical support for the County systems and Access Link. Mr. Harrison said the Citizens Advisory Committee will continue to provide rider input into these important systems which provide such vital benefits to the seniors and people with disabilities of New Jersey and to the overall welfare of the Garden State.

Mr. Harrison said one of their greatest concerns throughout the pandemic has been to assure that all citizens of the State have an opportunity to be vaccinated against this debilitating disease. Mr. Harrison complimented the County systems and Access Link for taking extraordinary steps during this pandemic that have provided transportation during this trying period for essential destinations and to their citizens to facilitate transportation to vaccination sites, which benefit the entire community. This issue has been paramount with the members of their Committee as well. He said the Citizens Advisory Committee recently presented a resolution calling on NJ TRANSIT to provide vaccination sites at accessible NJ TRANSIT facilities. The NJ TRANSIT Board and staff were of similar inclination and in fact such sites were established. Mr. Harrison said they believe they can say that when difficulties arose on being able to get vaccinated, that lack of transportation was not one of the impediments to receiving the vaccine.

Mr. Harrison said they currently have openings for four new members, two from the Central Region and two from the South. He said recently, NJ TRANSIT staff sent out to all regions of the State information about the Citizens Advisory Committee with a notice of the vacancies available. The response was overwhelming from all areas of the State. They are encouraging those who have responded and shown interest in the workings of the Committee to participate as members of the public. They are proud to advise that their meetings are open to the public. They welcome and encourage public comment at their meetings. He added that two speakers in this meeting brought up certain issues of concern and said his committee are advocates for senior citizens and people with

disabilities. He said bringing their comments to the Board was the right thing to do. He said their meetings are open to the public and if anyone has issues, they would be glad to advocate on their behalf.

Mr. Harrison said prior to the pandemic, the Committee participated in site visits at various County locations. They found that with their full attention to a particular county program they were able to understand the workings of that facility and enable themselves to provide suggestions for improvements. However, the pandemic has foreclosed these on-site visits and this is now being accomplished virtually. They are hopeful, as well as the rest of the population of New Jersey, that they will return to normal, meeting again in person and resuming their on-site visits.

Mr. Harrison applauded the innovative program introduced by Cape May's Director, Dan Mulraney, which calls for total same day demand/response service thereby providing greater access to the County system while almost eliminating the cost caused by no-shows. They will be monitoring the progress of this program with the intent to promote its use where feasible.

Access Link, managed by NJ TRANSIT staff, provides extensive access to many amenities for the people with disabilities of the State and allows them to lead useful and productive lives. The Citizens Advisory Committee, through the mechanism of a sub-committee, is communicating with General Manager, Michele Stiehler, to provide rider input into this important system. They appreciate the cooperation of Access Link General Manager, Michele Stiehler, in this important endeavor.

Mr. Harrison thanked all Citizens Advisory Committee members for their dedicated work on this Committee. They appreciate the input of their Council on Special Transportation (COST) members who provide much needed technical support. In furtherance of the Committee's objectives, he applauded the efforts of NJ TRANSIT staff who are working closely with the Committee to assist them in their efforts to continue to provide effective rider input into these NJ TRANSIT programs. He said Janelle Rivera has been very cooperative in aiding and encouraging the Committee's efforts to achieve its goals.

Mr. Harrison again expressed to the Board the importance of these systems that provide opportunities to the senior citizens and people with disabilities and asked for their support of the Local Programs Annual Board Item for 2022 funds to be voted on today. Mr. Harrison appreciated the opportunity to address the Board.

Board Operations and Customer Service Committee Report

Board Member LaRusso presented the report for the Operations and Customer Service Committee. The Operations and Customer Service Committee received an update on trends, analysis, and actions for rail, bus, light rail, and Access Link. The Committee also received an update on the Cost of Service.

Board Administration Committee Report

Chair Gutierrez-Scaccetti presented the report for the Administration Committee. The Administration Committee received a Financial Update. This included a summary of operating results compared to budget, Fiscal Year 2021 farebox revenue actual results compared to budget, the impact of COVID-19 on ticket sales, major balance sheet items, a report on Cares Act drawdowns, and a report on cash management and liquidity.

Additional information was provided as part of the agenda materials, including the cost of service key performance indicators, farebox recovery ratios, history of vacancies, attrition and hires, ridership and revenue, and a monthly budget-to-actual comparison for Fiscal Year 2021.

The Committee also received updates from Human Resources and Equal Employment Opportunity and Affirmative Action.

Board Capital Planning, Policy, and Privatization Committee Report

Vice Chair Fulton presented the report for the Capital Planning, Policy and Privatization Committee. The Committee discussed the board items for the Fiscal Year 2022 Capital Program; NJ TRANSIT Fiscal Year 2022 Grant Programs: Local Transportation for Senior Citizens, Persons with Disabilities, Rural, and Low-Income Residents; Community Mobility and Local Programs Purchase of Seventy-Five (75) Mobility Access Vehicles; Trans Hudson Interstate Bus Survey; Execution of Contract 20-084 for the Provision of Access Link Service in Region 4 (Mercer, Middlesex, Monmouth, and North Ocean Counties); and Information Technology: Award of Contract for Oracle Software Maintenance and Support to Mythics for Database Infrastructure and Applications.

Board Safety Committee Report

Board Member Adams presented the report for the Safety Committee. The NJ TRANSIT Office of System Safety continues to create and implement proactive safety programs across Rail, Light Rail, Bus, and Access Link systems. NJ TRANSIT continues to make positive improvements to key safety metrics as overall injury and incident rates continue to trend in a positive direction. Every NJ TRANSIT employee remains dedicated to doing their part to provide a safe method of transportation for all.

Chief Trucillo updated the Safety Committee on the mask enforcement efforts of the police department from June 1 through June 18, 2021. In addition, Chief Trucillo briefed the Committee concerning the Office of Emergency Management and their continued support and management of the State’s vaccination implementation plan which included vaccine clinics that were set-up in Hoboken Terminal during the previous month. The Office of Emergency Management also handled the planning and preparation efforts for the Juneteenth festival at Liberty State Park and the 4th of July fireworks in Jersey City.

Chief Trucillo also discussed the Office of Emergency Management's continued work in updating the agency's Comprehensive Emergency Management Plan with all business lines, as well as the management of the ongoing response to the pandemic.

Chief Trucillo also briefed the Committee on the statewide outreach efforts of the department during the month of June. Chief Trucillo reported on the department's use of "Narcan" through the first 21 days in June which resulted in nine lives being saved.

Action Items

2107-46: RESOLUTION AUTHORIZING THE CONTINUATION OF OPERATING EXPENDITURES IN FISCAL YEAR 2022

President & CEO Corbett introduced William Viqueira, Senior Vice President, Chief Financial Officer and Treasurer, to present Action Item #2107-46.

William Viqueira recommended approval of Action Item #2107-46: Resolution Authorizing the Continuation of Operating Expenditures in Fiscal Year 2022.

Approval was requested to expend, in the normal course of business, the funds necessary to meet NJ TRANSIT's obligations, essentially in accordance with the Fiscal Year 2021 Operating Budget (Action Item 2010-60), resolution and attachments and until the adoption and approval of the Fiscal Year 2022 Operating Budget.

Approval was also requested to acknowledge and accept its responsibility to adopt a final operating budget at the next regularly scheduled meeting or continue to authorize the expenditure of funds essentially in accordance with the Fiscal Year 2021 Operating Budget.

Approval was also requested to continue or enter into any agreements and expend funds to continue NJ TRANSIT's transportation related programs and business operations, subject to the availability of funds.

Approval was also requested to provide local share and other in-kind services or act as a pass-through agency for Federal or State capital or operating funds subject to the availability of funds.

Board Member Shanti Narra made a motion and Vice Chair Cedrick T. Fulton seconded the motion.

Board Member Adams said if the public and the Board remember he did not vote in favor of last year's operating budget and because this is an extension of last year's operating budget and for two other reasons, it is unfortunate that he would not be able to vote in the affirmative for this budget for the following reasons. Board Member Adams said he had a fundamental disagreement with capital to operating transfers. He knows the proposed budget this year, before we extended last year's budget reduced it, but still includes it.

Board Member Adams said he mentioned last year that he really expected that the Board would be a little more involved in the budget process, offering options, and looking at different ways to budget from various avenues and that did not happen the way he thought it should have.

Board Member Adams mentioned the issue of the CRRSSA and American Rescue Plan fund and said it is unfortunate that NJ TRANSIT cannot put a permanent budget in place because of something that is outside of their control. He said during their previous meeting with the team, he suggested an alternate that he did not believe was properly considered. For this reasoning, he will be unable to vote yes for this item.

Chair Gutierrez-Scaccetti thanked President & CEO Corbett and his staff on this last issue surrounding the CRRSSA funds. She said this has been a very difficult matter and they have worked hard to find alternatives and is pleased to know they will continue to do so, with the support of others so they can get to a successful end for New Jersey and wanted to make sure this was on record.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
No	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

2107-47: NJ TRANSIT 2021 CAPITAL PLAN UPDATE ADOPTION AND FISCAL YEAR 2022 AUTHORIZATION TO SECURE CAPITAL FUNDING

President & CEO Corbett introduced Eric Daleo, Senior Vice President, Capital Programs, to present Action Item #2107-47.

Eric Daleo recommended approval of Action Item #2107-47: NJ TRANSIT 2021 Capital Plan Update Adoption and Fiscal Year 2022 Authorization to Secure Capital Funding.

Approval was requested to adopt the *2021 Capital Plan Update,* which is an update to *A Five-Year Capital Plan,* an unconstrained vision of projects to demonstrate opportunities for safety, service reliability, resiliency, sustainability, and other improvements critical to NJ TRANSIT.

Approval was also requested to take whatever actions are necessary to seek and secure the funds envisioned by this Program of Projects.

Approval was also requested to transfer funding sources and amounts among programmed projects as circumstances require, in compliance with the terms and conditions of the grants and other funding sources.

Approval was also requested to make application, execute contracts or agreements, and take whatever other actions are necessary to seek and secure funds, consistent with the basic intent of this program, which may become available after its adoption.

Board Member James D. Adams made a motion and Board Member Shanti Narra seconded the motion.

Board Member Adams thanked the team for putting together this comprehensive plan and having the foresight to be able to look at it on an annual basis. He also encouraged the staff and fellow Board Members to help look for ways and funding sources to help fully fund this plan. He was very proud of the fact that NJ TRANSIT, during the pandemic, was still executing capital projects. Board Member Adams said kudos to the NJ TRANSIT team and to its partners at the NJ Department of Transportation.

Board Member Doshi thanked staff for a comprehensive plan.

Board Member Narra echoed what Board Member Adams' comments and thanked staff for a comprehensive plan.

Vice Chair Fulton echoed what his colleagues said and added that the team has made amazing progress. He said the types of systems they have been able to put in place, identify, and prioritize which were consistent with the Ten-Year Strategic Plan and vision, prepares NJ TRANSIT for the future. They will both drive projects that are ongoing right now and position NJ TRANSIT to make compelling arguments for funding for important work that will span safety, security, customer service and sustainability. Vice Chair Fulton applauded the team for a tremendous program.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

Board Secretary Zuczek noted Board Member Narra was recused from the next two items 2107-48 and 2107-49. The Operator removed Board Member Narra from the meetings.

2107-48: NJ TRANSIT FISCAL YEAR 2022 GRANT PROGRAMS: LOCAL TRANSPORTATION FOR SENIOR CITIZENS, PERSONS WITH DISABILITIES, RURAL, AND LOW-INCOME RESIDENTS

President & CEO Corbett introduced Eric Daleo, Senior Vice President, Capital Programs, to present Action Item #2107-48.

Eric Daleo recommended approval of Action Item #2107-48: NJ TRANSIT Fiscal Year 2022 Grant Programs: Local Transportation for Senior Citizens, Persons with Disabilities, Rural, and Low-Income Residents.

Approval was requested to execute, extend, or modify contracts to implement the FY2022 Senior Citizen and Disabled Resident Transportation Assistance Program as set forth in Exhibit A for a total program amount of $22,310,000, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 FTA Section 5311 Rural and Small Urban Areas program, as set forth in Exhibit B, in the amount of $5,534,844 which includes $3,534,844 in Federal funds and $2,000,000 as the NJ TRANSIT share of the local match, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 Section 5311 Rural Intercity Program for a total program amount of $666,969, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 FTA Section 5311(b)(3) Rural Transit Assistance Program in an amount up to $132,157 Federal funds at no cost to NJ TRANSIT, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and leases to implement the FY2022 FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program for $9,600,000 which includes $7,850,000 in Federal funds and $1,750,000 as the NJ TRANSIT share of the local match, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for $4,500,000 in NJ TRANSIT funds, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for up to $1,000,000 in additional funds from the State of New Jersey for a total NJ-JARC program cost of $5,500,000, subject to the availability of funds.

Approval was also requested to execute all appropriate agreements and contracts and to take other steps to implement the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 and the American Rescue Plan Act of 2021 in amounts to be determined at no cost to NJ TRANSIT.

Approval was also requested to execute all appropriate agreements and contracts and to take all other steps to implement any specially-dedicated Congressional appropriations, FTA Section 5307 Small Urban Cities, FTA Section 5309 Major Capital Investments, Congestion Mitigation Air Quality (CMAQ), and other local projects, including funds which will be flexed into ongoing FTA programs under the FY2022 budget for $6,000,000, subject to the availability of funds.

Board Member James D. Adams made a motion and Vice Chair Cedrick T. Fulton seconded the motion. Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Recused	Yes	Yes	Yes	Yes

2107-49: COMMUNITY MOBILITY AND LOCAL PROGRAMS PURCHASE OF SEVENTY-FIVE (75) MOBILITY ACCESS VEHICLES

President & CEO Corbett introduced Eric Daleo, Senior Vice President, Capital Programs, to present Action Item #2107-49.

Eric Daleo recommended approval of Action Item #2107-49: Community Mobility and Local Programs Purchase of Seventy-Five (75) Mobility Access Vehicles.

Approval was requested to enter into a contract with Rohrer Enterprises, Inc. DBA Rohrer Bus Sales of Trenton, New Jersey, for the purchase of thirty-five (35) mobility access vehicles at a cost of $1,556,000.00, plus five percent contingencies, subject to the availability of funds and Board approval of the Local Programs annual Board item.

Approval was also requested to exercise the options to extend NJ TRANSIT Contract No. 20-008 to purchase the remaining forty (40) vehicles over the four-year option period in accordance with the Request for Proposal and the vendor's proposal, at a cost not to exceed $508,900.00 for each additional 12-month period, plus five percent for contingencies, subject to the approval of funds and Board approval of the Local Programs annual Board item.

Vice Chair Cedrick T. Fulton made a motion and Board Member James D. Adams seconded the motion.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Recused	Yes	Yes	Yes	Yes

Board Member Narra returned to the meetings.

2107-50: TRANS-HUDSON INTERSTATE BUS SURVEY

President & CEO Corbett introduced Jeannie Kwon, Senior Vice President & Chief Administrative Officer, to present Action Item #2107-50.

Jeannie Kwon recommended approval of Action Item #2107-50: Trans-Hudson Interstate Bus Survey.

Approval was requested to enter into a contract with Resource Systems Group, Inc., of White River Junction, Vermont, for the Trans-Hudson Interstate Bus Survey, subject to the availability of funds.

Board Member Shanti Narra made a motion and Board Member James D. Adams seconded the motion.

Board Member Adams thanked staff for their comprehensive explanation of this item and pointed out although NJ TRANSIT set a DBE Utilization Goal of 25 percent, this entity approved a 42.23 percent DBE Utilization, and he applauded the company for taking the DBE goals seriously and, not only meeting them, but exceeding them.

Board Member Narra is excited that NJ TRANSIT is going ahead with this project.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

2107-51: EXECUTION OF CONTRACT 20-084 FOR THE PROVISION OF ACCESS LINK SERVICE IN REGION 4 (MERCER, MIDDLESEX, MONMOUTH, AND NORTH OCEAN COUNTIES

President & CEO Corbett introduced Michael Kilcoyne, Senior Vice President, Surface Transit & General Manager, Bus Operations, to present Action Item #2107-51.

Michael Kilcoyne recommended approval of Action Item #2107-51: Execution of Contract 20-084 for the Provision of Access Link Service in Region 4 (Mercer, Middlesex, Monmouth, and North Ocean Counties).

Approval was requested to enter into a contract with First Transit, Inc. of Cincinnati, Ohio, to operate Access Link service in Region 4 (Mercer, Middlesex, Monmouth, and North Ocean Counties) for a 36-month base contract period for Fiscal Year 2022 through Fiscal Year 2025 at a cost not to exceed $45,930,576, plus five percent contingencies, for a total contract authorization of $48,227,105, subject to the availability of funds and Board approval of NJ TRANSIT's Operating Budget.

Board Member Shanti Narra made a motion and Board Member James D. Adams seconded the motion. Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

2107-52: INFORMATION TECHNOLOGY: AWARD OF CONTRACT FOR ORACLE SOFTWARE MAINTENANCE AND SUPPORT TO MYTHICS FOR DATABASE INFRASTRUCTURE AND APPLICATIONS

President & CEO Corbett introduced William Viqueira, Senior Vice President, Chief Financial Officer and Treasurer, to present Action Item #2107-52.

William Viqueira recommended approval of Action Item #2107-52: Information Technology: Award of Contract for Oracle Software Maintenance and Support to Mythics for Database Infrastructure and Applications.

Approval was requested to enter into a software maintenance contract for Oracle EBS with Mythics of Virginia Beach, Virginia, for the period of June 21, 2021 through June 20, 2022, in an amount not to exceed $2,081,157.12, plus five percent for contingencies, subject to the availability of funds.

Vice Chair Cedrick T. Fulton made a motion and Board Member Shanti Narra seconded the motion.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

2107-53: PROCUREMENT-BY-EXCEPTION TO PURCHASE TWO ENGINE DYNAMOMETERS, DATA ACQUISITION AND CONTROL, AND WATER SYSTEMS FOR THE BUS CENTRAL MAINTENANCE FACILITY

President & CEO Corbett introduced Michael Kilcoyne, Senior Vice President, Surface Transit & General Manager, Bus Operations, to present Action Item #2107-53.

Michael Kilcoyne recommended approval of Action Item #2107-53: Procurement by Exception to Purchase Two Engine Dynamometers, Data Acquisition and Control, and Water Systems for the Bus Central Maintenance Facility.

Approval was requested to enter into a procurement-by-exception contract for the purchase of two Engine Dynamometers, Data Acquisition and Control, and Water Systems with Taylor Dynamometer of Milwaukee, Wisconsin, for installation, commissioning, startup testing, and related training in an amount not to exceed $499,001.55, plus ten percent for contingencies, for a total authorization of $548,901.00, subject to the availability of funds.

Board Member James D. Adams made a motion and Board Member Shanti Narra seconded the motion.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

2107-54: SUPERSTORM SANDY AND OTHER PROPERTY INSURANCE CLAIMS/RECOVERY ASSISTANCE

President & CEO Corbett introduced William Viqueira, Senior Vice President, Chief Financial Officer and Treasurer, to present Action Item #2107-54.

William Viqueira recommended approval of Action Item #2107-54: Superstorm Sandy and Other Property Insurance Claims/Recovery Assistance.

Approval was requested to increase the amount for a contract with Marsh USA by $2,500,000, plus five percent for contingency, for a total contract authorization of $8,896,270, subject to the availability of funds.

Vice Chair Cedrick T. Fulton made a motion and Board Member Shanti Narra seconded the motion.

Board Member Adams said the way he read this Board item was that the original contract was for approximately $700,000, and now the team is asking the Board to approve a Change Order No. 7 for $2.5 million which would bring the total contract amount to $8.8 million. This would mean a contract that started out as $700,000 is being increased by $8.1 million, and he also understands that there are other vendors in the industry that can provide this service. He said although the team has adequately explained the continuity of the service that Marsh has offered and the fact that they kept the same team on for numerous years, he cannot support a contract that was originally bid at $700,000 given the $8.1 million of additional work. Board Member Adams said he was trying to focus on equity and public procurement, and he is sure there are a lot of bidders and firms out there that would have liked to have a chance to participate. Board Member Adams knows the staff has done the best for NJ TRANSIT, but for this item he cannot vote in the affirmative.

Board Member Narra understands Board Member Adams concerns, but she also understands Superstorm Sandy caused a lot of complications and that there have been incredible intricate layers relating to litigation. She said she too has had questions about this as well, but very much understands that when litigation and all the issues relating to compensation on these insurance claims are as complicated as they are, she knows continuity is very important and as a lawyer getting new lawyers up to speed to continue on from where you are, may end up costing more. Board Member Narra said she will support this Action Item.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
No	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

Board Secretary Zuczek noted Board Member Rasmussen was recused from the next item 2107-55. The Operator removed Board Member Rasmussen from the meetings.

2107-55: PERSONAL INJURY CLAIM OF KILIEK ANTHONY

President & CEO Corbett introduced William Viqueira, Senior Vice President, Chief Financial Officer and Treasurer, to present Action Item #2107-55.

William Viqueira recommended approval of Action Item #2107-55: Personal Injury Claim of Kiliek Anthony.

Approval was requested to settle the claim of Kiliek Anthony, through his attorney, at an amount discussed in Executive Session. The Attorney General has approved the proposed settlement, subject to the availability of funds.

Board Member Shanti Narra made a motion and Board Member James D. Adams seconded the motion.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

Board Member Rasmussen returned to the meetings.

VOTE TO AMEND THE FISCAL YEAR 2022 ANNUAL NOTICE OF MEETINGS

Chair Gutierrez-Scaccetti asked for a motion and a second to amend the Fiscal Year 2022 Annual Notice of Meetings to include a meeting on August 25, 2021 at 6:00 p.m.

Vice Chair Cedrick T. Fulton made a motion and Board Member Lauren LaRusso seconded the motion.

Chair Gutierrez-Scaccetti asked for a roll call vote and the item was adopted.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

Executive Session Authorization

Chair Gutierrez-Scaccetti noted they would adjourn to Executive Session, would only return to adjourn the meetings, and no further business would be conducted. Chair Gutierrez-Scaccetti asked for a motion to enter Executive Session to discuss personnel matters, contract negotiations, the status of pending and anticipated litigation, and matters falling within the attorney-client privilege, including, but not limited to, the Personal Injury Claim of Pierre Chehade and the Personal Injury Claim of Viandy Morales.

Board Member Shanti Narra made the motion, Board Member James D. Adams seconded the motion, and it was adopted. At approximately 8:21 p.m., the Board adjourned to Executive Session.

Roll Call Vote:

Adams	Doshi	Gordon	Maroko	Narra	Ajmani	LaRusso	Fulton	Gutierrez-Scaccetti
Yes	Yes	Absent	Absent	Yes	Yes	Yes	Yes	Yes

Return to Open Session

Board Secretary Zuczek conducted a Roll Call as Board Members returned to Open Session. All Board Members, except Board Member Gordon, returned to Open Session at approximately 9:33 p.m.

Adjournment

Since there was no further business, a motion to adjourn was made by Board Member Shanti Narra, seconded by Vice Chair Cedrick T. Fulton, and adopted. The meetings were adjourned at approximately 9:34 p.m.

NEW JERSEY TRANSIT CORPORATION
NJ TRANSIT BUS OPERATIONS, INC.
NJ TRANSIT RAIL OPERATIONS, INC.
NJ TRANSIT MERCER, INC.
NJ TRANSIT MORRIS, INC.
REGULARLY SCHEDULED BOARD OF DIRECTORS' MEETINGS

JULY 21, 2021

MINUTES	PAGE
➢ CALL TO ORDER	-
➢ APPROVAL OF MINUTES OF PREVIOUS MEETINGS	59920
➢ PRESIDENT & CEO'S MONTHLY REPORT	59921
➢ PUBLIC COMMENTS	-
➢ ADVISORY COMMITTEE REPORT	-
➢ SENIOR CITIZEN AND DISABLED RESIDENT TRANSPORTATION ADVISORY COMMITTEE REPORT	-
➢ BOARD COMMITTEE REPORTS	-

ACTION ITEMS

2107-46 **RESOLUTION AUTHORIZING THE CONTINUATION OF OPERATING EXPENDITURES IN FISCAL YEAR 2022** – Authorization to expend, in the normal course of business, the funds necessary to meet NJ TRANSIT's obligations, essentially in accordance with the Fiscal Year 2021 Operating Budget (Action Item 2010-60), resolution and attachments and until the adoption and approval of the Fiscal Year 2022 Operating Budget. 59944

Authorization to acknowledge and accept its responsibility to adopt a final operating budget at the next regularly scheduled meeting or continue to authorize the expenditure of funds essentially in accordance with the Fiscal Year 2021 Operating Budget.

Authorization to continue or enter into any agreements and expend funds in order to continue NJ TRANSIT's transportation related programs and business operations, subject to the availability of funds.

Authorization to provide local share and other in-kind services or act as a pass-through agency for Federal or State capital or operating funds, subject to the availability of funds.

2107-47 **NJ TRANSIT 2021 CAPITAL PLAN UPDATE ADOPTION AND FISCAL YEAR 2022 AUTHORIZATION TO SECURE CAPITAL FUNDING** – Authorization to adopt the *2021 Capital Plan Update,* which is an update to *A Five-Year Capital Plan,* an unconstrained vision of projects to demonstrate opportunities for safety, service reliability, resiliency, sustainability, and other improvements critical to NJ TRANSIT. **59946**

Authorization to take whatever actions are necessary to seek and secure the funds envisioned by this Program of Projects.

Authorization to transfer funding sources and amounts among programmed projects as circumstances require, in compliance with the terms and conditions of the grants and other funding sources.

Authorization to make application, execute contracts or agreements, and take whatever other actions are necessary to seek and secure funds, consistent with the basic intent of this program, which may become available subsequent to its adoption.

2107-48 **NJ TRANSIT FISCAL YEAR 2022 GRANT PROGRAMS: LOCAL TRANSPORTATION FOR SENIOR CITIZENS, PERSONS WITH DISABILITIES, RURAL, AND LOW- INCOME RESIDENTS** – Authorization to execute, extend or modify contracts to implement the FY2022 Senior Citizen and Disabled Resident Transportation Assistance Program as set forth in Exhibit A for a total program amount of $22,310,000, subject to the availability of funds. **60419**

Authorization to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 FTA Section 5311 Rural and Small Urban Areas program, as set forth in Exhibit B, in the amount of $5,534,844 which includes $3,534,844 in Federal funds and $2,000,000 as the NJ TRANSIT share of the local match, subject to the availability of funds.

Authorization to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 Section 5311 Rural Intercity Program for a total program amount of $666,969, subject to the availability of funds.

Authorization to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 FTA Section 5311(b)(3) Rural Transit Assistance Program in an amount up to $132,157 Federal funds at no cost to NJ TRANSIT, subject to the availability of funds.

Authorization to execute all appropriate agreements and leases to implement the FY2022 FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program for $9,600,000 which includes $7,850,000 in Federal funds and $1,750,000 as the NJ TRANSIT share of the local match, subject to the availability of funds.

Authorization to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for $4,500,000 in NJ TRANSIT funds, subject to the availability of funds.

Authorization to execute all appropriate agreements and contracts and to take other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for up to $1,000,000 in additional funds from the State of New Jersey for a total NJ-JARC program cost of $5,500,000, subject to the availability of funds.

Authorization to execute all appropriate agreements and contracts and to take other steps to implement the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 and the American Rescue Plan Act of 2021, in amounts to be determined at no cost to NJ TRANSIT.

Authorization to execute all appropriate agreements and contracts and to take all other steps to implement any specially-dedicated Congressional appropriations, FTA Section 5307 Small Urban Cities, FTA Section 5309 Major Capital Investments, Congestion Mitigation Air Quality (CMAQ), and other local projects including funds which will be flexed into ongoing FTA programs under the FY2022 budget for $6,000,000, subject to the availability of funds.

2107-49 **COMMUNITY MOBILITY AND LOCAL PROGRAMS PURCHASE OF SEVENTY-FIVE (75) MOBILITY ACCESS VEHICLES** – Authorization to enter into NJ TRANSIT Contract No. 20-008 with Rohrer Enterprises, Inc. DBA Rohrer Bus Sales of Trenton, New Jersey, for the purchase of thirty-five (35) mobility access vehicles at a cost of $1,556,000.00, plus five percent contingencies, subject to the availability of funds and Board approval of the Local Programs annual Board item. **60426**

Authorization to exercise the options to extend NJ TRANSIT Contract No. 20-008 to purchase the remaining forty (40) vehicles over the four-year option period in accordance with the Request for Proposal and the vendor's proposal, at a cost not to exceed $508,900.00 for each additional 12-month

period, plus five percent for contingencies, subject to the approval of funds and Board approval of the Local Programs annual Board item.

2107-50 **TRANS-HUDSON INTERSTATE BUS SURVEY** – Authorization to enter into NJ TRANSIT Contract No. 20-054 with Resource Systems Group, Inc., of White River Junction, Vermont, for the Trans-Hudson Interstate Bus Survey, subject to the availability of funds. **60430**

2107-51 **EXECUTION OF CONTRACT 20-084 FOR THE PROVISION OF ACCESS LINK SERVICE IN REGION 4 (MERCER, MIDDLESEX, MONMOUTH, AND NORTH OCEAN COUNTIES)** – Authorization to enter into NJ TRANSIT Contract No. 20-084 with First Transit, Inc. of Cincinnati, Ohio, to operate Access Link service in Region 4 (Mercer, Middlesex, Monmouth, and North Ocean Counties) for a 36-month base contract period for Fiscal Year 2022 through Fiscal Year 2025 at a cost not to exceed $45,930,576, plus five percent contingencies, for a total contract authorization of $48,227,105, subject to the availability of funds and Board approval of NJ TRANSIT's Operating Budget. **60437**

2107-52 **INFORMATION TECHNOLOGY: AWARD OF CONTRACT FOR ORACLE SOFTWARE MAINTENANCE AND SUPPORT TO MYTHICS FOR DATABASE INFRASTRUCTURE AND APPLICATIONS** – Authorization to enter into a software maintenance contract for Oracle EBS with Mythics of Virginia Beach, Virginia, for the period of June 21, 2021 through June 20, 2022, in an amount not to exceed $2,081,157.12, plus five percent for contingencies, subject to the availability of funds. **60438**

2107-53 **PROCUREMENT BY EXCEPTION TO PURCHASE TWO ENGINE DYNAMOMETERS, DATA ACQUISITION AND CONTROL, AND WATER SYSTEMS FOR THE BUS CENTRAL MAINTENANCE FACILITY** – Authorization to enter into a procurement-by-exception contract (EOI Contract No. 20-342) for the purchase of two Engine Dynamometers, Data Acquisition and Control, and Water Systems with Taylor Dynamometer of Milwaukee, Wisconsin, for installation, commissioning, startup testing, and related training in an amount not to exceed $499,001.55, plus ten percent for contingencies, for a total authorization of $548,901.00, subject to the availability of funds. **60439**

2107-54 **SUPERSTORM SANDY AND OTHER PROPERTY INSURANCE CLAIMS/ RECOVERY ASSISTANCE** – Authorization to increase the amount for NJ TRANSIT Contract No. 10-046 with Marsh USA by $2,500,000, plus five percent for contingency, for a total contract authorization of $8,896,270, subject to the availability of funds. **60441**

2107-55 **PERSONAL INJURY CLAIM OF KILIEK ANTHONY** – Authorization to settle the claim of Kiliek Anthony through his attorney, at an amount discussed in Executive Session. The Attorney General has approved the proposed settlement, subject to the availability of funds. **60442**

- **EXECUTIVE SESSION AUTHORIZATION** **60443**
- **ADJOURNMENT**

APPROVAL OF MINUTES

WHEREAS, the By-Laws provide that the minutes of actions taken at meetings of the New Jersey Transit Corporation, NJ TRANSIT Rail Operations, Inc., NJ TRANSIT Bus Operations, Inc., NJ TRANSIT Mercer, Inc., and NJ TRANSIT Morris, Inc. Board of Directors be approved by the Board; and

WHEREAS, pursuant to Section 4(f) of the New Jersey Public Transportation Act of 1979, the minutes of actions taken at the June 9, 2021 Board Meetings of the New Jersey Transit Corporation, NJ TRANSIT Bus Operations, Inc., NJ TRANSIT Rail Operations, Inc., NJ TRANSIT Mercer, Inc., and NJ TRANSIT Morris, Inc. were forwarded to the Governor on June 17, 2021;

NOW, THEREFORE, BE IT RESOLVED that the minutes of actions taken at the June 9, 2021 Board Meetings of the New Jersey Transit Corporation, NJ TRANSIT Rail Operations, Inc., NJ TRANSIT Bus Operations, Inc., NJ TRANSIT Mercer, Inc., and NJ TRANSIT Morris, Inc. Board of Directors' meetings are hereby approved.

Philip D. Murphy, Governor
Sheila Y. Oliver, Lieutenant Governor
Diane Gutierrez-Scaccetti, Commissioner
Kevin S. Corbett, President & CEO

NJTRANSIT
One Penn Plaza East
Newark, NJ 07105-2246
973-491-7000

TO: BOARD OF DIRECTORS
FROM: KEVIN S. CORBETT
DATE: JULY 21, 2021
SUBJECT: **PRESIDENT & CEO'S REPORT – JULY 2021**

Once again, this month we are seeing many indications that we are coming out on the other side of the pandemic. Last month, based on high state vaccination rates and Governor Murphy's E.O. 241 regarding outdoor public spaces, NJ TRANSIT lifted the requirement for customers to wear masks outside on our system, although masks are still required for customers indoors throughout the system, as per the TSA's indoor guidance. Additionally, all station waiting rooms that have been closed since the onset of the pandemic will be reopening on September 7th. However, to be clear, the pandemic is not over and we all need to remain vigilant.

As we continue to make our system as safe and customer-friendly as possible, we updated our policy on personal vehicles to allow e-bikes, e-scooters, and hoverboards aboard NJ TRANSIT vehicles, as another way to encourage customers to come back to transit while both supporting and facilitating the use of environmentally friendly transit options for first-mile/last-mile travel. On June 25th, NJ TRANSIT was awarded a $5.15 million FTA grant to purchase eight battery-electric buses to be deployed between Irvington and Newark. The grant advances our commitment to transition to a 100% zero-emissions bus fleet by 2040 and complements our plan to upgrade our Hilton Garage in Maplewood with charging infrastructure to support these buses. The State is helping us implement this upgrade through a Memorandum of Understanding (MOU) with the New Jersey Board of Public Utilities.

NJ TRANSIT introduced another environmentally friendly initiative last month – **Transit to Trails** – which launched as an interactive, user-friendly web application that easily identifies the many New Jersey parks and green spaces accessible by public transportation. The site, njtransit.com/trails, links NJ TRANSIT services to more than 60 national, state, and county parks, encouraging customers to use environmentally friendly public transportation options when planning to enjoy the great outdoors. Results feature bus, rail, and light rail options within two miles of the desired park throughout all 21 New Jersey counties.

As we work to protect our environment, we continue to reinforce our commitment to safety as NJ TRANSIT's top priority. For National Safety Month in June, we published two new videos to acknowledge all those employees who put safety first at all times, while coming up with new and innovative ways to make our system even safer. I'm also pleased to note that NJ TRANSIT has met all the conditions that had end-of-the-year deadlines, and for which we are solely responsible, laid out in the FRA's December 2020 certification of our Positive Train Control (PTC) project. All other joint conditions – to be completed in coordination with other railroads – remain on track to be achieved as prescribed by the FRA.

As part of both our commitment to safety and to leveraging technology to improve the customer experience, last month we introduced a lifesaving partnership with the mobile traffic navigation app, Waze. Through this partnership, drivers using Waze are now automatically alerted when they near a railroad crossing anywhere throughout the state. We also continue to regularly update our mobile app, adding features and functionality. Last month, we launched Map My Ride, which allows customers to track the location of their bus or train with a simple tap on their mobile device. Customers can now see the location of their bus or train, on a map, along with the estimated arrival time to their location.

Another key area of our agency's focus has been infrastructure. Along with more than $4 billion in our own capital projects that are advancing since 2018, NJ TRANSIT proudly helped launch a new infrastructure plan undertaken by the Northeast Corridor Commission, at a press conference I attended last week in my role both as President & CEO of NJ TRANSIT and Co-Chair of the Commission. CONNECT NEC 2035 (C35) is an ambitious, $117 billion plan that would transform and modernize the NEC – the busiest and most vital stretch of infrastructure in the nation. As we work to improve service, capacity, and reliability on the NEC, we are advancing complementary sustainability and "smart growth" Transit-Oriented Development along the corridor, as well. Last week, NJ TRANSIT joined with the Murphy Administration to announce the advancement of a major TOD project on 12 acres located directly adjacent to our Metropark Station in Woodbridge. We released an RFP to the four finalists who successfully submitted responses to our previous Statements of Qualifications and Expressions of Interest. The site is envisioned for transformative mixed-use development that will foster better access to employment centers and transportation, fewer greenhouse gas emissions, and a healthier, more environmentally friendly community.

PRESIDENT & CEO'S MONTHLY REPORT

JULY 21, 2021

PRESIDENT & CEO'S MONTHLY REPORT
JULY 21, 2021

1. PERFORMANCE MEASURES

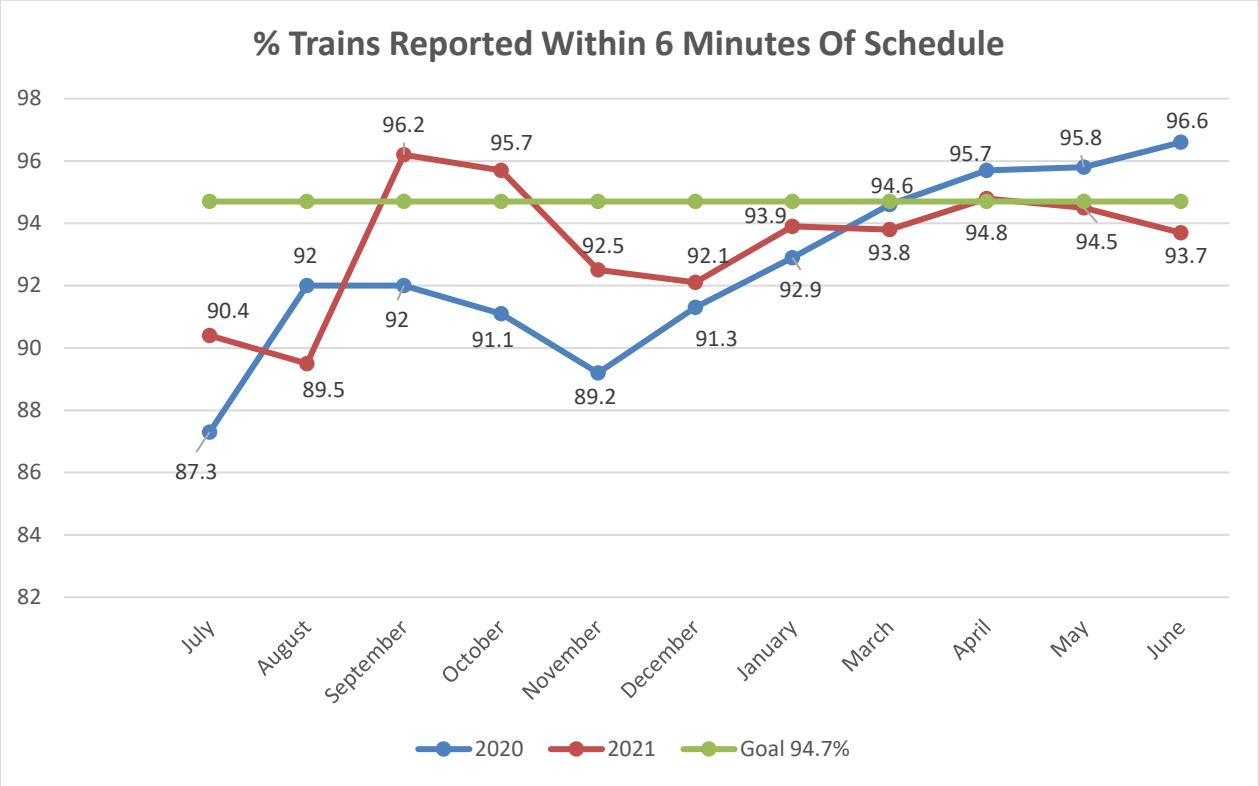
2. MEAN DISTANCE BETWEEN FAILURES

3. DBE/SBE PROGRAM

4. EMPLOYEE RECOGNITION

PERFORMANCE MEASURES

NJ TRANSIT
ON-TIME PERFORMANCE
RAIL
JULY 2019 – JUNE 2021



	2020	2021	%Change
June Comparison	96.6%	93.7%	-2.9%
12-Month Average July, 2019 – June, 2021	92.3%	93.3%	1.0%

Analysis:

Rail On-time Performance was 93.7% for June, 2021. Of the 17,557 trains scheduled to operate, 16,457 were on time, while 1,100 trains (or 6.3%) were delayed.

Key Causes included:

- Amtrak miscellaneous, NJT PTC mechanical, weather related, electric locomotive issue, unruly passenger removed and a fatality contributed 85 delays on June 4.
- NJT weather related issues contributed 106 delays on June 8.
- Amtrak police action, NJT police action and PTC mechanical contributed 68 delays on June 10.

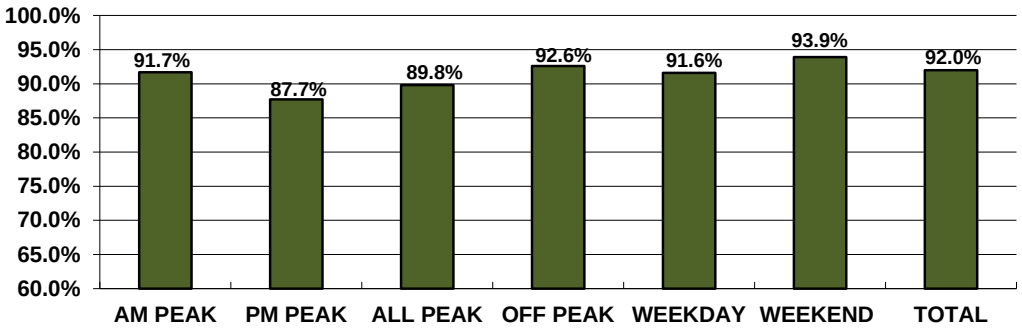
The 12-month Average for Rail On-Time Performance was 93.3%.

ON-TIME PERFORMANCE
RAIL

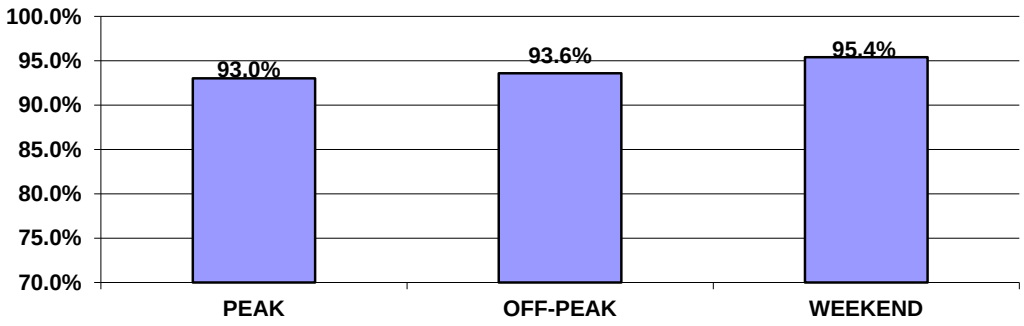
SUMMARY BY TIME PERIOD
June 2021

*** NOTE: A train is reported late if it arrives at its final station stop more than 5:59 minutes later than the advertised schedule.**

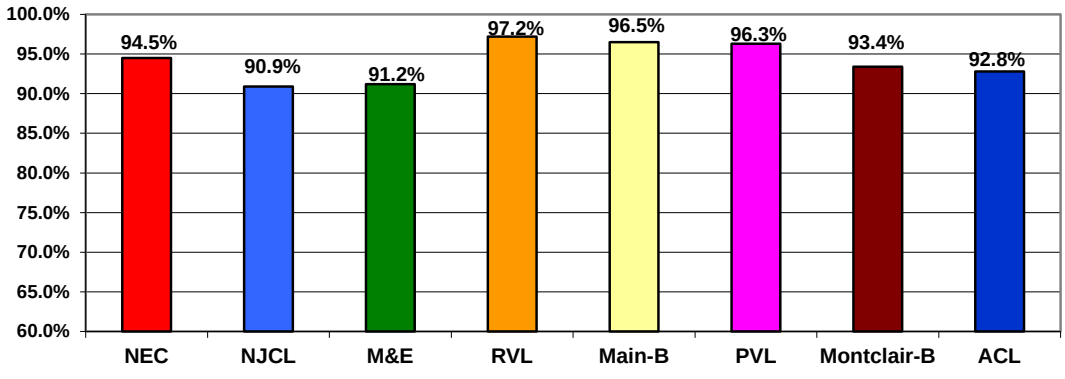
% NEW YORK PENN STATION Trains Reported On Time *



% SYSTEMWIDE Trains Reported On Time

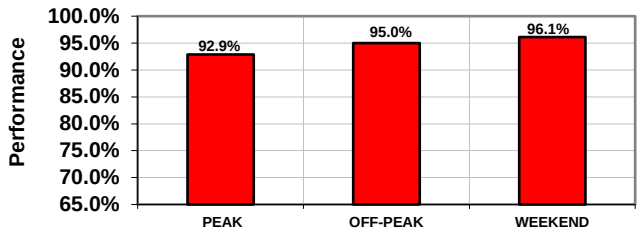


% BY LINE Trains Reported On Time

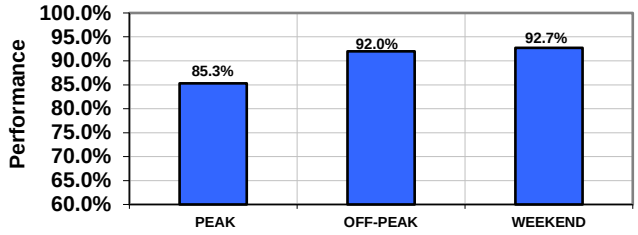


ON-TIME PERFORMANCE
BY RAIL LINE & TIME PERIOD
June 2021

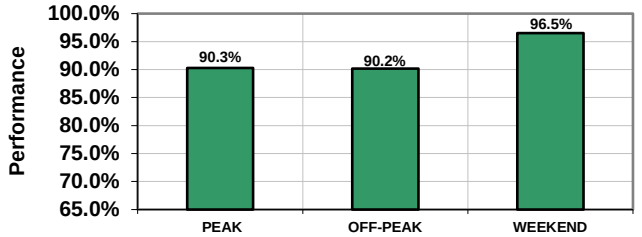
NORTHEAST CORRIDOR



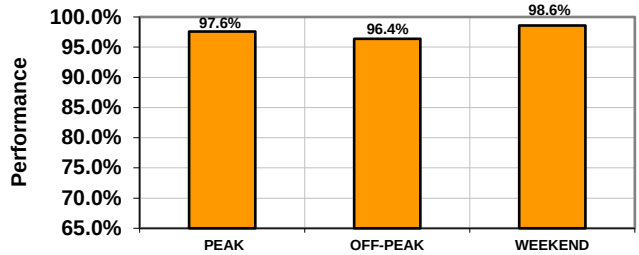
NORTH JERSEY COAST LINE



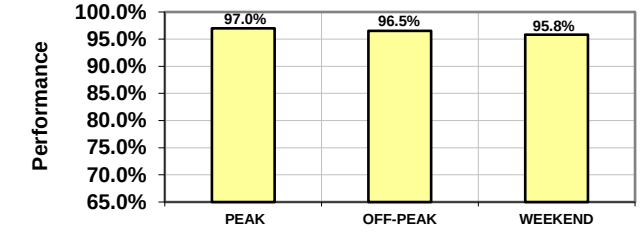
MORRIS & ESSEX



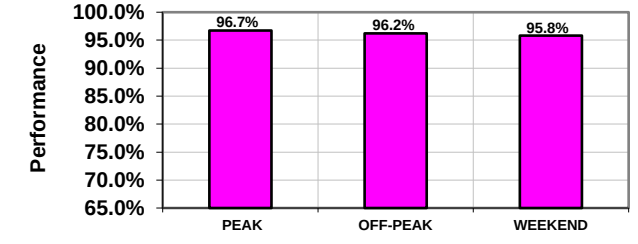
RARITAN VALLEY LINE



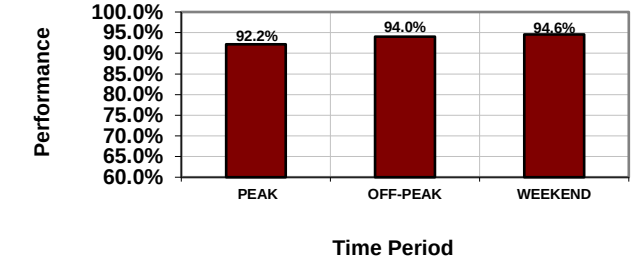
MAIN-BERGEN



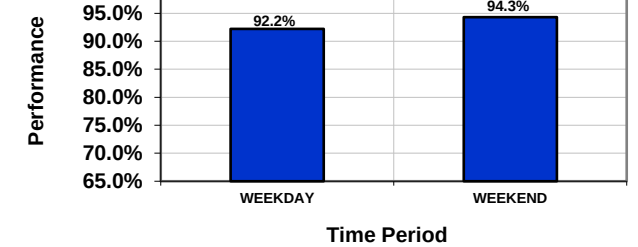
PASCACK VALLEY



MONTCLAIR-BOONTON



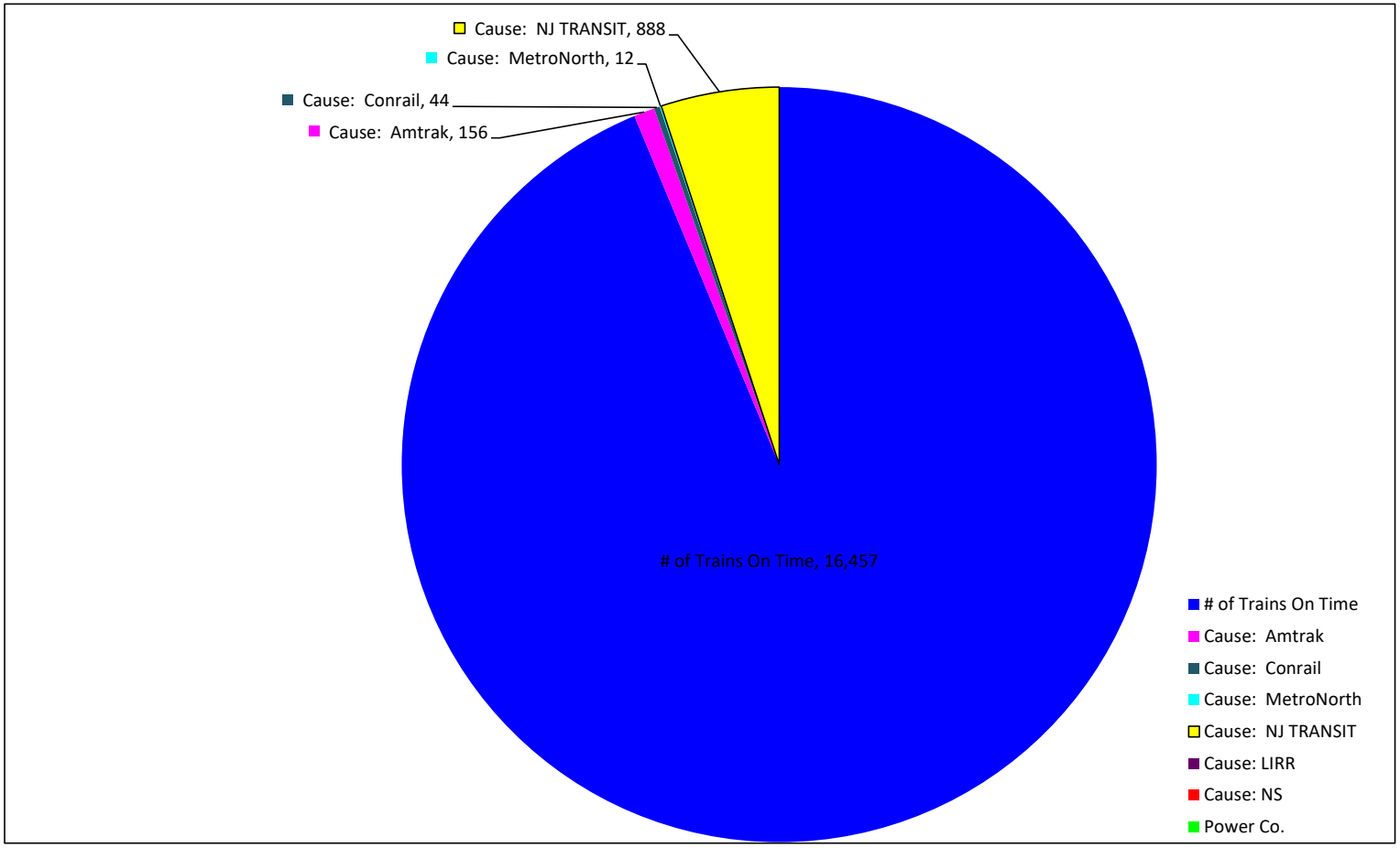
ATLANTIC CITY



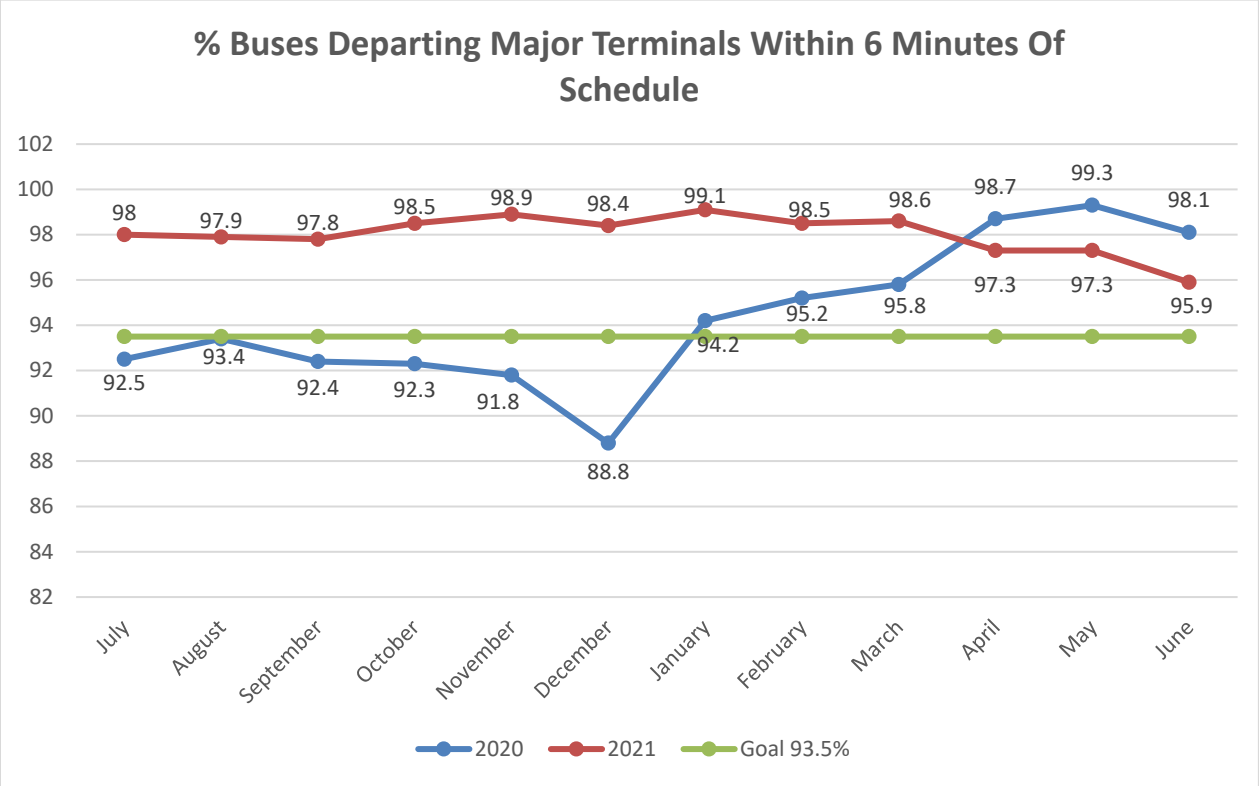
NJ TRANSIT Performance - June 2021

Late NJ TRANSIT Trains

	# of Trains On	Cause: Amtrak	Cause: Conrail	Cause: MetroNorth	Cause: NJ TRANSIT	Cause: LIRR	Cause: NS	Power Co.
# of Trains On Time	16,457	156	44	12	888			
# of Late Trains	1,100	0.89%	0.25%	0.07%	5.06%	0.00%	0.00%	0.00%
Total # of Trains	17,557							
Percentage On Time	93.7%							



NJ TRANSIT
ON-TIME PERFORMANCE
BUS
July 2019 – June 2021



	2020	2021	%Change
June Comparison	98.1%	95.9%	-2.2%
12-Month Average July 2020 – June 2021	94.4%	98.0%	3.6%

Analysis*:

Bus On-Time Performance systemwide was 95.9% for the month of June 2021. Of the 40,460 scheduled departures, 1665 experienced delays.

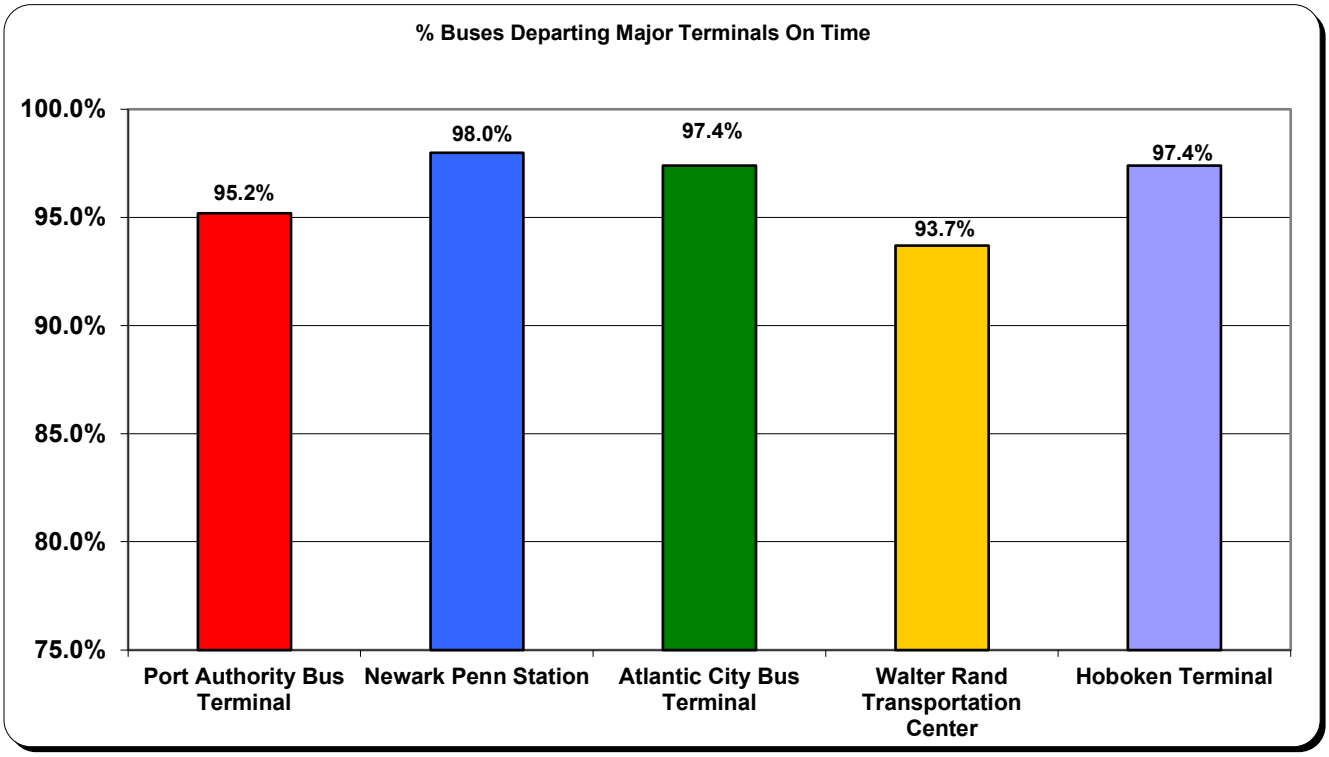
Key Causes included:

- At PABT, minor delays were caused due to weather, detours, traffic, and road construction on various days.
- At Newark Penn, On the 4th, mechanical issues, DOT inspections and road closures due to construction and police activity with closed off roadways caused significant delay. On the 18th, mechanical issues and long-term road closures in Downtown Newark caused numerous delays. On the 24th, road closures due to PSEG repair work and other construction sites and motor vehicle accident contributed to the delays.
- For various other locations, minor delays were caused due to weather, detours, traffic, and road construction on various days.

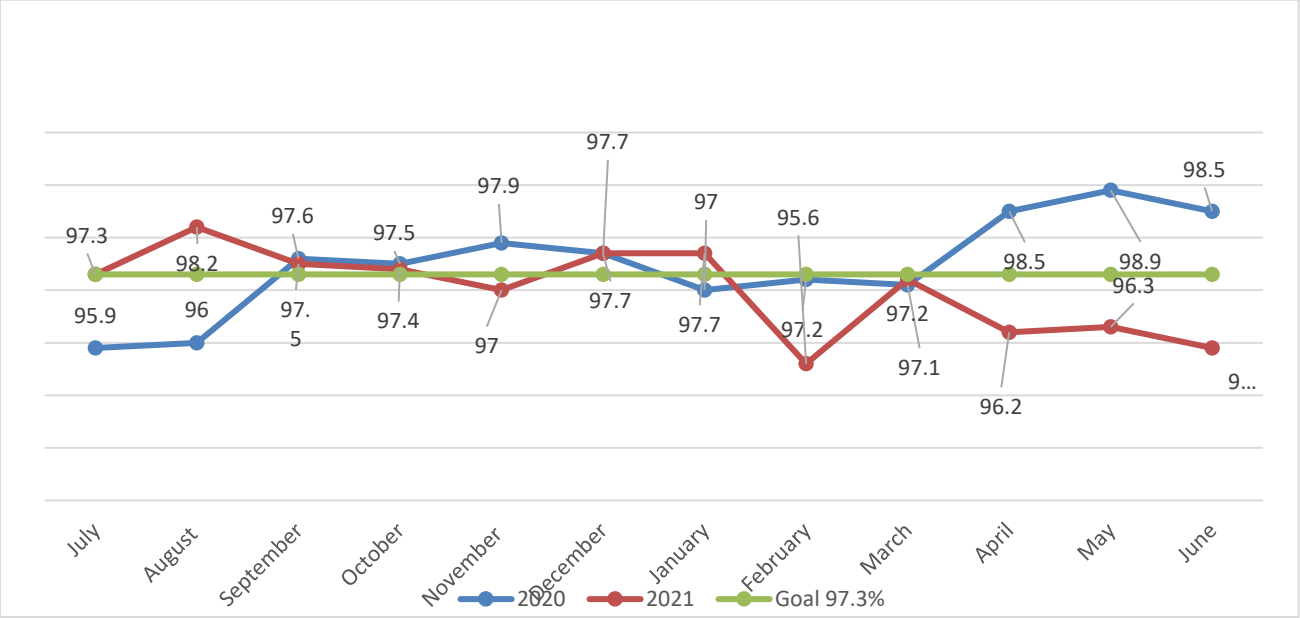
The 12-month average for Bus On-Time Performance was 98.0%.

ON-TIME PERFORMANCE
BUS

SUMMARY BY TERMINAL



NJ TRANSIT
ON-TIME PERFORMANCE
LIGHT RAIL
July 2020 – June 2021



	2020	2021	%Change
June Comparison	98.5%	95.9%	-2.6%
12-Month Average July 2020 – June 2021	97.5 %	96.9%	-0.6%

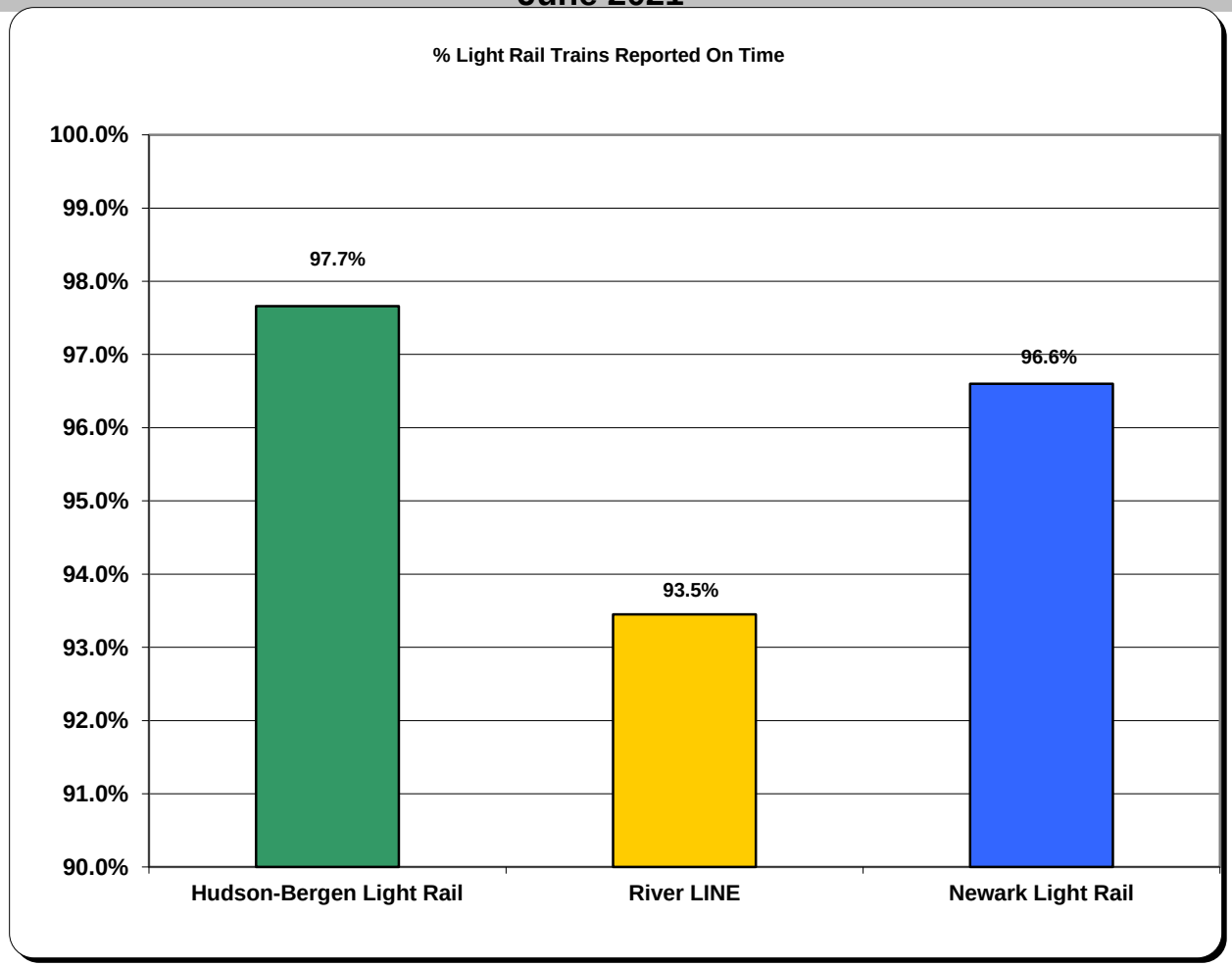
Analysis: Light Rail On-Time Performance system wide was 95.9 % for the month of June. Of the 27,582 scheduled departures, 1,208 experienced delays.

Key Causes included:

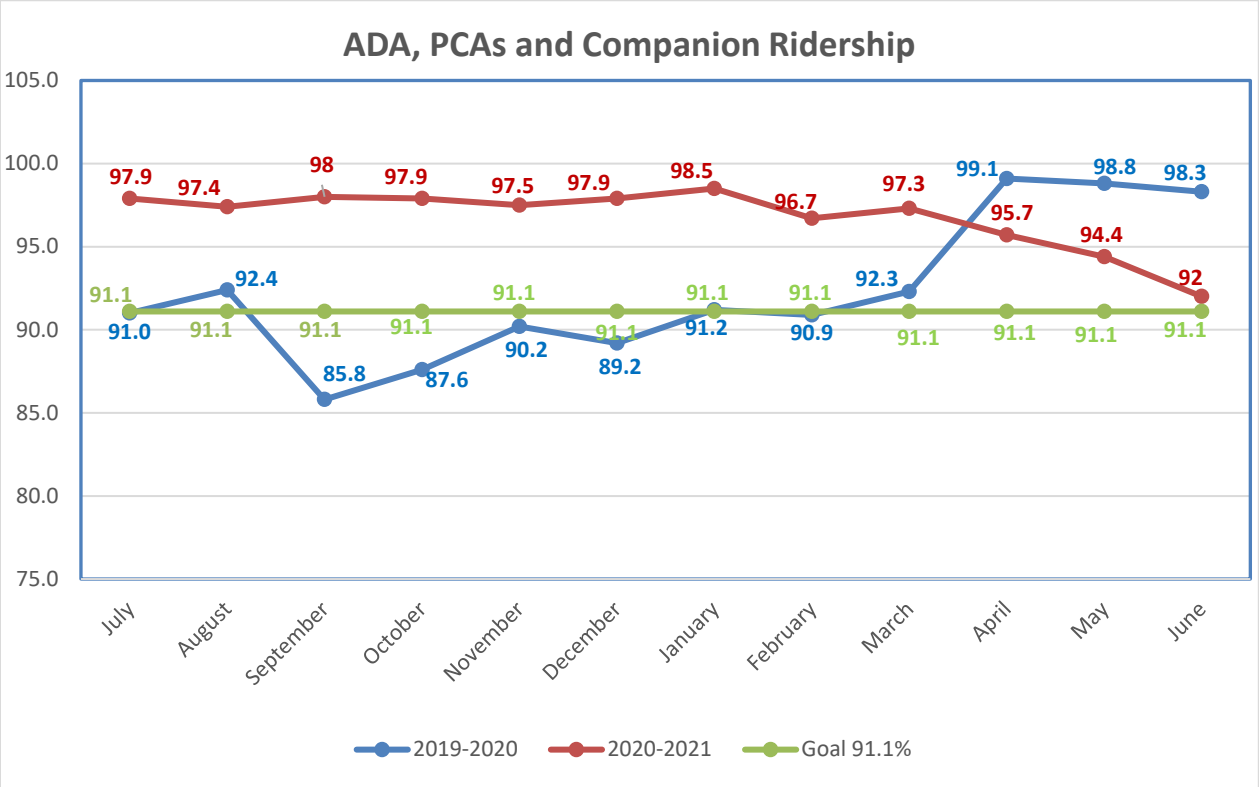
- **Newark Light Rail** – Manpower issue impacted approximately 170 trains on multiple dates. Mechanical faults affected 3 trains on 6/19 and 5 trains on 6/26 while mechanical faults and construction at Grove St affected 45 trains on 6/28, 18 trains on 6/29 and 34 trains on 6/30.
- **River Line** – Equipment issues including DC Link plausibility, brake faults, speed sensors, fire sensors, vehicle control unit, traction faults, and HVAC issues affected 71 trains on multiple dates while passenger interference, signal equipment issues impacted trains on various days. A broken window caused by vandalism affected 3 trains on 6/30.
- **HBLR** – Door issues affected 15 trains on multiple dates while brakes faults/issues affected 32 trains on multiple dates. Fallen tree branches on lines affected 129 trains on 6/7 while 42 trains were affected due to passenger illness on 6/24.
- The 12-month Average for Light Rail On-Time Performance was 96.9 %

ON-TIME PERFORMANCE
LIGHT RAIL

SUMMARY BY LINE
June 2021



NJ TRANSIT
ON-TIME PERFORMANCE
ACCESS LINK
JULY 2019– JUNE 2021



	2020	2021	%Change
June Comparison	98.3%	92.0%	-6.3%
June Ridership	57,746	99,914	41,868
12-Month Average July 2020 – June 2021	92.2%	96.8%	4.6%

Analysis:

Access Link On-Time Performance was 92.0% for June 2021. In serving 110,368 total riders, for 99,614 ADA customers trips, 7,937 (or 8.0%) experienced delays.

Key Causes included:

- Increased road congestion
- Customer no-shows and delays
- Vehicle operator coverage

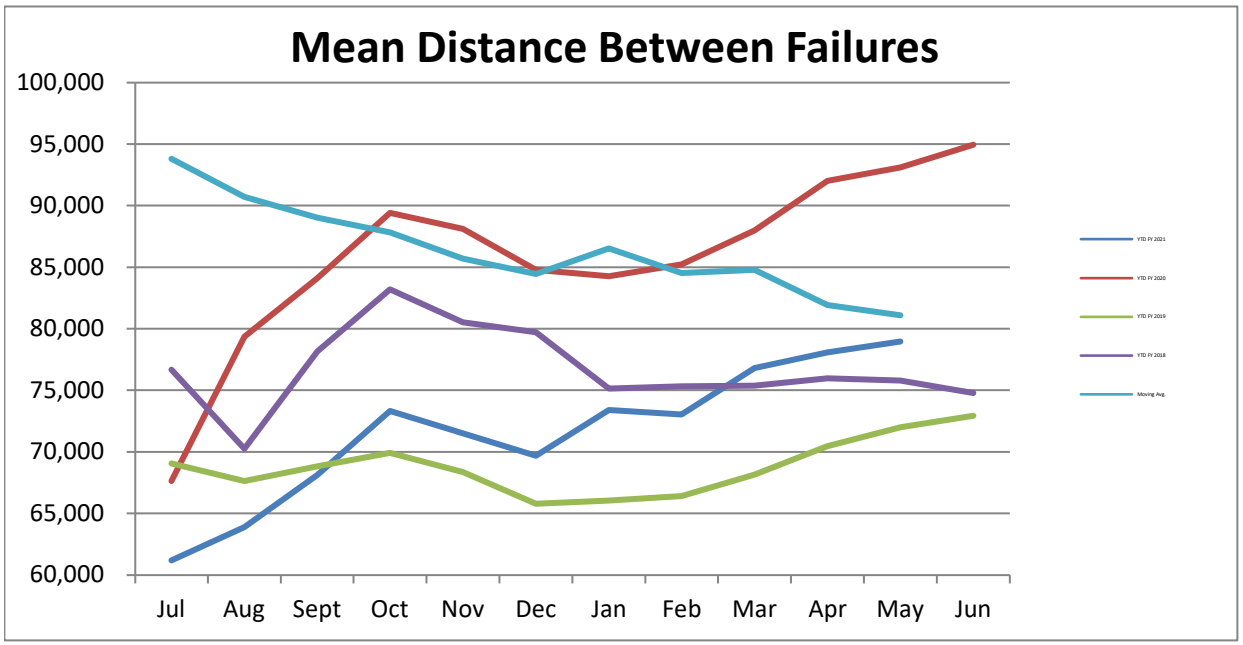
The 12-month Average for Access Link On-Time Performance was 96.8%.

MEAN DISTANCE BETWEEN FAILURES

May 2021

NJ TRANSIT Rail Operations
Mean Distance Between Failures

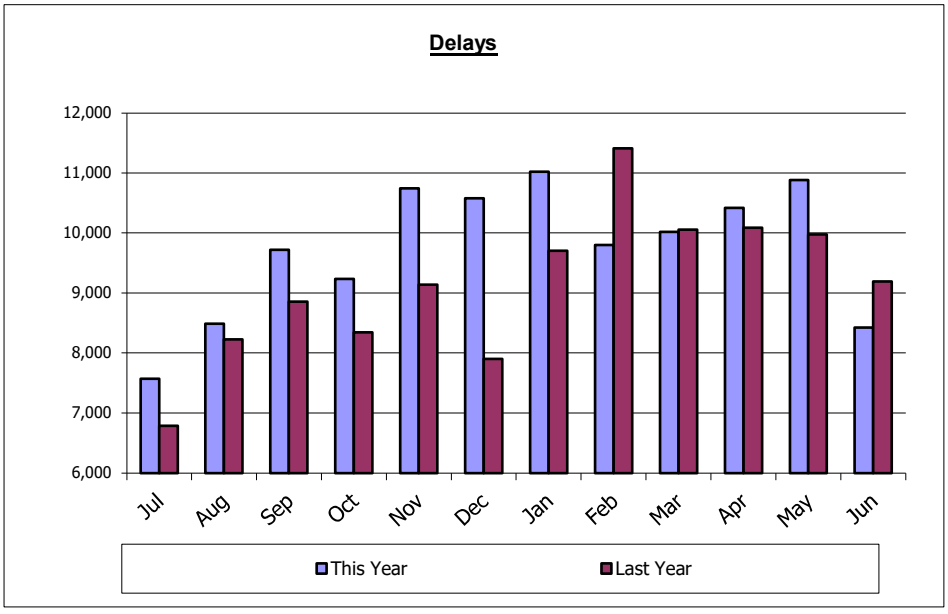
Month	YTD FY2021	YTD FY2020	YTD FY2019	YTD FY2018	12 Month Moving Avg.
Jul	61,198	67,634	69,055	76,674	93,809
Aug	63,891	79,350	67,612	70,263	90,718
Sept	68,109	84,111	68,823	78,151	89,016
Oct	73,320	89,410	69,913	83,213	87,817
Nov	71,498	88,101	68,356	80,523	85,702
Dec	69,664	84,773	65,796	79,711	84,451
Jan	73,392	84,273	66,025	75,139	86,531
Feb	73,030	85,233	66,391	75,324	84,529
Mar	76,790	87,973	68,141	75,376	84,772
Apr	78,072	92,007	70,447	75,968	81,931
May	78,962	93,119	71,986	75,787	81,101
Jun	-	94,969	72,930	74,776	-



Garage Performance Parameters

June 2021

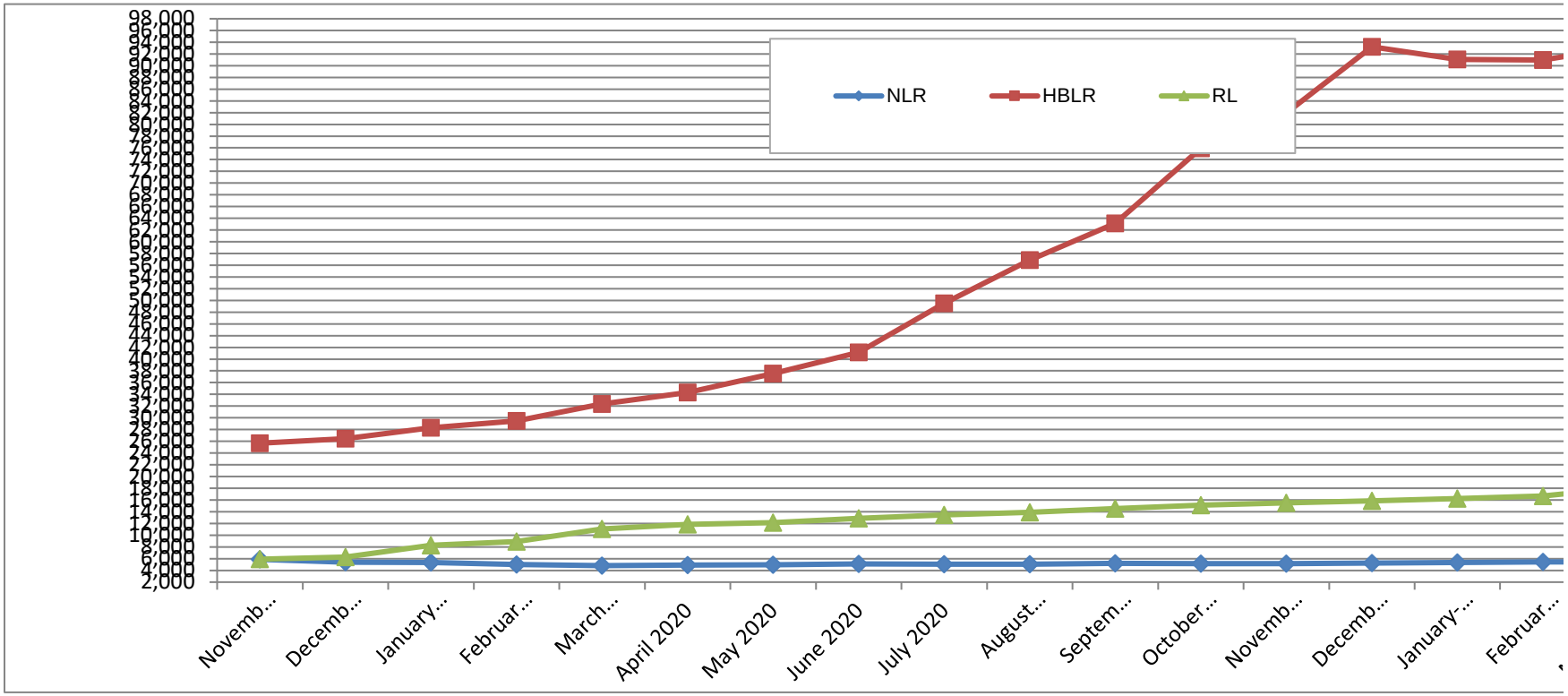
Location	Miles Between In-Service Delays			
	FY2021 Goal	This Month	FY2021 YTD	FY2020 YTD
Fairview	5,500	5,736	4,806	3,517
Greenville	7,000	4,215	5,356	4,602
Market Street	8,000	3,688	5,528	6,494
Meadowlands	9,500	6,249	5,571	5,175
Oradell	10,000	5,771	7,896	6,774
Wayne	16,000	13,171	17,632	14,911
Northern Division	**-**	**6,108**	**7,308**	**6,565**
Big Tree	8,800	6,055	5,473	5,211
Hilton	10,200	9,641	8,093	7,065
Howell	16,750	29,904	30,712	31,366
Ironbound	9,600	8,479	9,561	7,347
Orange	9,250	4,159	4,990	5,463
Morris	10,500	51,211	22,225	28,518
Central Division	**-**	**9,030**	**9,431**	**8,689**
Egg Harbor	15,500	12,295	15,213	18,922
Hamilton	13,000	11,510	11,438	11,491
Newton Avenue	12,000	13,524	16,922	13,542
Washington Twp.	14,500	20,332	20,671	20,684
Southern Division	**-**	**14,295**	**16,300**	**16,860**
	-	-	-	-
Bus Operations	***-***	***8,424***	***9,581***	***8,893***



NJ TRANSIT - LIGHT RAIL, June 2021

Average Miles Between In Service Failures

NJT LIGHT RAIL	MDBSF * June 2021	MDBSF * May 2021
Newark Light Rail	4,918	5,006
Hudson Bergen	91,573	89,288
River LINE	20,830	20,325



DBE/SBE PROGRAM

NJ TRANSIT - DBE/SBE Participation for June 2021

State Funded Contracts

State Fiscal Year 2021 - July 1, 2020 through June 30, 2021

During the month of **June 2021** NJ TRANSIT awarded **$4,270,627.14** in state funded contracts. Of that total, Small Business Enterprises (SBEs) received **$1,358,185.39** or **31.80%.**

State Fiscal Year 2021 YTD (July 1, 2020 through June 30, 2021) NJ TRANSIT awarded **$326,061,619.58** in state funded contracts. Of that total, SBEs received **$46,018,920.39** or **14.03%.**

Note: The above reflects the Procurement Report of Awards received on July 2, 2021.

SBE Goal Attainment from July 1, 2020 through June 30, 2021 (SFY 2021)

Category 1 SBEs	$1,745,828.46	0.54%
Category 2 SBEs	$7,004,718.95	2.15%
Category 3 SBEs	$8,294,649.05	2.54%
Category 4 SBEs	$325,843.00	0.10%
Category 5 SBEs	$19,164,152.27	5.88%
Category 6 SBEs	$9,201,729.55	2.82%

FTA Funded Contracts (Updated Quarterly – next update will occur October 2021)

Federal Fiscal Year (FFY) 2021 - October 1, 2020 through September 30, 2021

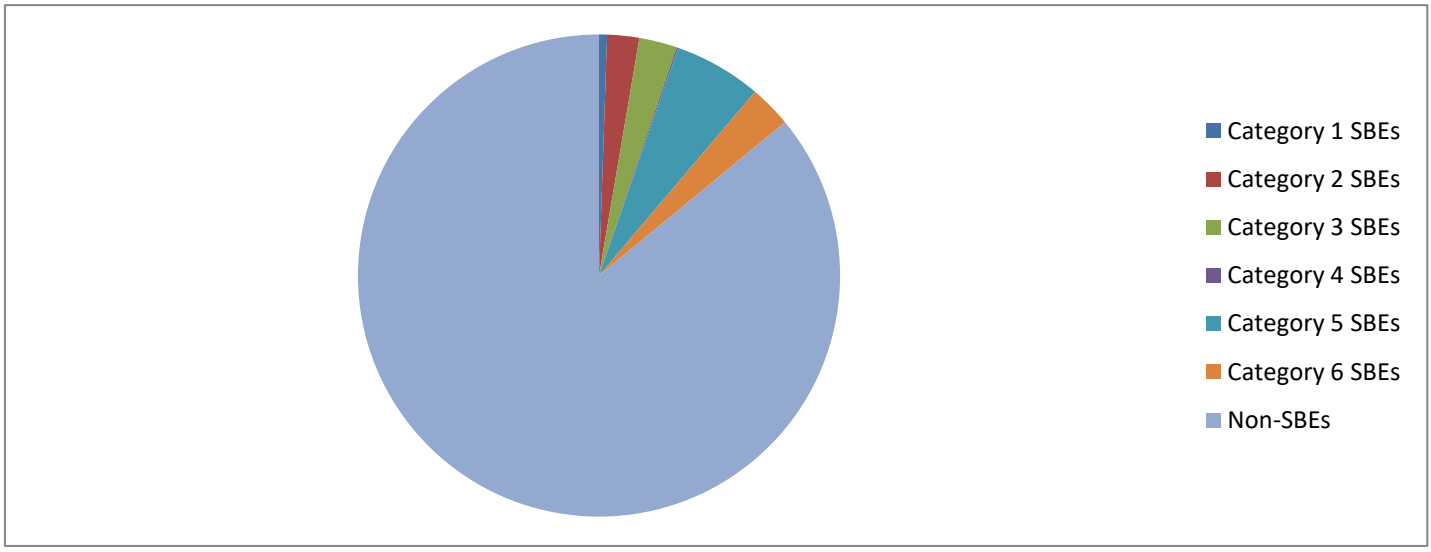
During the **3rd Quarter** (April 1, 2021 – June 30, 2021) the FTA-funded share of NJ TRANSIT's federal contract awards was **$7,191,460.81**. Of that total, Disadvantaged Business Enterprises (DBEs) received **$1,407,500.46** or **19.57%.**

FFY 2020 through FFY 2021 Q3 (October 1, 2019 – June 30, 2021) NJ TRANSIT awarded **$386,127,632.91**** in federally funded contracts. Of that total, DBEs received **$32,896,720.68** or **8.520%.**

**Numbers reflect federal share*
*** Number includes subrecipient awards*

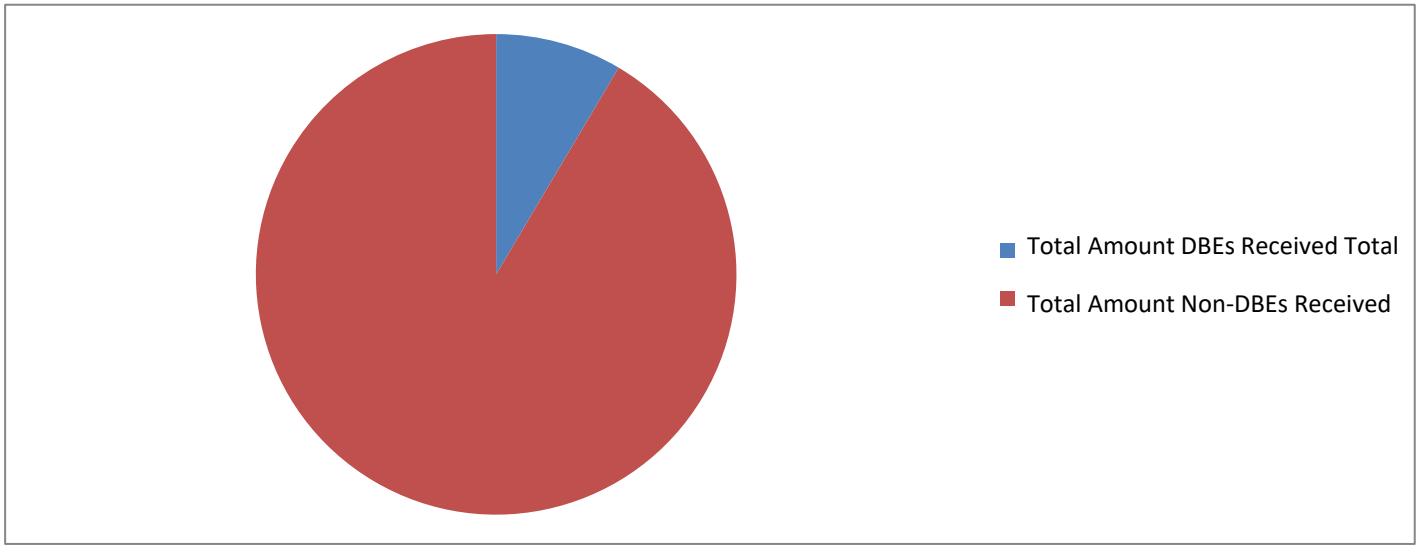
STATE CONTRACTS
STATE FYTD 2021

Category 1 SBEs	**$1,745,828.46**	**0.54%**
Category 2 SBEs	**$7,004,718.95**	**2.15%**
Category 3 SBEs	**$8,294,649.05**	**2.54%**
Category 4 SBEs	**$325,843.00**	**0.10%**
Category 5 SBEs	**$19,164,152.27**	**5.88%**
Category 6 SBEs	**$9,201,729.55**	**2.82%**
Non-SBEs	$280,324,698.30	85.97%



DBE PARTICIPATION
FEDERAL CONTRACTS
FEDERAL FY 2020-2022

Total Amount DBEs Received	**$32,896,720.68**	**8.520%**
Total Amount Non-DBEs Received	$353,230,912.23	91.48%



EMPLOYEE RECOGNITION

NJ TRANSIT employees bid farewell after outstanding careers

The following NJ TRANSIT employees retired recently:

1. Christopher Esposito, Conductor -- Various -- 35 years
2. William Harland, Locomotive Engineer -- Various -- 33 years
3. Gary Hoffman, Lead Technician -- MMC -- 37 years
4. William Houston, Manager Equipment Administration -- Headquarters -- 41 years
5. Scott Huff, Line Engineer -- Headquarters -- 35 years
6. Peter Husbands, Lead Technician -- Averne, NY -- 20 years
7. Lucille Walker, Operator Clerk -- MMC -- 26 years
8. Puviraj Antoney- Pillai, Operator -- Ironbound -- 10 years
9. Tyrone Heard, Operator -- Howell -- 12 years
10. Lidio Hernandez, Operator -- Fairview --17 years
11. Mukund Patel, Inspector CLS B --Lincoln Tunnel -- 40 years
12. Leroy Stubbs, Operator -- Hilton --28 years
13. Larry Tell, Operator -- Ironbound -- 18 years
14. Dennis Williams, Operator -- Howell -- 10 years
15. Michael Ferguson, Repairman A -- Ironbound -- 18 years
16. Gail Griffith, Operator -- Orange -- 26 years
17. Salem Saleh, Operator -- Oradell -- 18 years
18. Leola Brock, Supervisor Customer Service -- Penn Plaza -- 35 years
19. Arthur Kent, Director INT/LS Audit -- Penn Plaza -- 27 years
20. Omar Lima, Manager Ticket Sales -- PABT -- 40 years
21. Philip Petrignani, Supervisor QA -- Penn Plaza -- 28 years

ACTION ITEMS

ITEM 2107-46: RESOLUTION AUTHORIZING THE CONTINUATION OF OPERATING EXPENDITURES IN FISCAL YEAR 2022

WHEREAS, Article II, Section 4(c) of the By-Laws requires the Board of Directors to adopt a final budget for NJ TRANSIT after the State of New Jersey has completed the process of appropriating funds for public transportation purposes; and

WHEREAS, the New Jersey Legislature has enacted a Fiscal Year 2022 State Budget which includes appropriations for public transportation purposes; and

WHEREAS, the State's Fiscal Year 2022 Budget was signed by the Governor and adopted by the State on June 29, 2021; and

WHEREAS, NJ TRANSIT's Proposed Fiscal Year 2022 Operating Budget is heavily reliant on Federal COVID-19 funding assistance under the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and the American Rescue Plan Act (ARPA); and

WHEREAS, the Federal COVID-19 funding assistance available under CRRSAA and ARPA requires agreement between New Jersey, New York, and Connecticut which has not been finalized; and

WHEREAS, it is necessary to NJ TRANSIT to enter into agreements and expend funds after July 1, 2021, prior to the final adoption of the Fiscal Year 2022 Operating Budget, in order to continue NJ TRANSIT's transportation related programs and business operations; and

WHEREAS, NJ TRANSIT's $2.637 billion Fiscal Year 2021 Operating Budget was approved by the Board of Directors in October 2021 (Action Item 2010-60) to provide continued support and investment in the operations of NJ TRANSIT Bus, Rail, Light Rail, and Access Link services; and

WHEREAS, the authorization to expend funds and enter into agreements under a continuance of the authority granted by the approval of the Fiscal Year 2021 Operating Budget will enable NJ TRANSIT to provide safe, reliable, and efficient transportation services for its customers;

NOW, THEREFORE, BE IT RESOLVED that the NJ TRANSIT Board of Directors authorizes the Chair or President & CEO to expend, in the normal course of business, the funds necessary to meet NJ TRANSIT's obligations, essentially in accordance with the Fiscal Year 2021 Operating Budget (Action Item 2010-60), resolution and attachments and until the adoption and approval of the Fiscal Year 2022 Operating Budget; and

BE IT FURTHER RESOLVED that the NJ TRANSIT Board of Directors acknowledges and accepts its responsibility to adopt a final operating budget at the next regularly scheduled meeting or continue to authorize the expenditure of funds essentially in accordance with the Fiscal Year 2021 Operating Budget; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to continue or enter into any agreements and expend funds in order to continue NJ TRANSIT's transportation related programs and business operations, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to provide local share and other in-kind services or act as a pass-through agency for Federal or State capital or operating funds, subject to the availability of funds.

2021 Capital Plan Update
& FY 2022 Capital Funding Appropriation

PRESENTATION ROADMAP

- FY 2021 Notable Accomplishments
- On-Going Major Capital Projects
- 2021 Capital Plan Update
- FY2022 Capital Funding Appropriation
- Next Steps in the Planning Process

PRESENTATION ROADMAP

- **FY 2021 Notable Accomplishments**
- On-Going Major Capital Projects
- 2021 Capital Plan Update
- FY2022 Capital Funding Appropriation
- Next Steps in the Planning Process

TWO MAJOR ACHIEVEMENTS OCCURRED IN FY2021

Positive Train Control Certification

NJ TRANSIT **achieved certification** of its PTC system by the Federal Railroad Administration (FRA) ahead of the federally mandated December 31, 2020 deadline.

Portal North Bridge Full Funding Grant Agreement

NJ TRANSIT **signed a FFGA** with the Federal Transit Administration (FTA) to fund a critical $1.897 Billion mega-project to build a new, fixed, two-track railroad bridge across the Hackensack River. An FTA Core Capacity Grant will fund $766.5 million of the project's total budget.

PRESENTATION ROADMAP

- FY 2021 Notable Accomplishments
- **On-Going Major Capital Projects**
- 2021 Capital Plan Update
- FY2022 Capital Funding Appropriation
- Next Steps in the Planning Process

MAJOR ON-GOING ROLLING STOCK PURCHASES

113 Multilevel III Rail Vehicles

- Approved in December 2018
- *First 6 Pilot Vehicles to arrive in 2023*

1,104 Cruiser Buses

- Approved in February 2015
- *First Bus delivered in February 2016*
- *Last Bus expected in 2Q 2022*

110 Articulated Buses

- Approved in 2019 and 2020
- *First Bus delivered in October 2019*
- *Last Bus is expected in 3Q 2021.*

MAJOR INFRASTRUCTURE PROJECTS IN CONSTRUCTION

- **Raritan River Bridge $595 MM**

  Complete replacement of the existing bridge over the Raritan River servicing the North Jersey Coast Line.

  Awarded Phase 1 in July 2020

  December 2025 full service completion

- **Hoboken Long Slip Fill & Rail $195 MM**

  Phase 1 - Filling of Long Slip Canal for use as a staging area for storm disruption. Phase 2 – Six new electrified tracks with boarding platforms.

  Awarded Phase 1 in January 2020

  September 2024 full project completion

MAJOR STATION PROJECTS IN CONSTRUCTION

- **Elizabeth Station $71 MM**

  New station building with elevators and high-level platforms

  Awarded in November 2018

  July 2023 completion

- **Lyndhurst Station $31.6 MM**

  Two new high-level platforms with accessible parking and an ADA compliant path

  Awarded in January 2021

  October 2022 completion

MAJOR POWER PROJECTS IN CONSTRUCTION

- **Mason Substation $132 MM**

  40% complete - December 2022 completion

- **Henderson Street Substation $39 MM**

  80% complete – August 2021 completion

- **Bay Head Substation $31 MM**

  15% complete – March 2023 completion

- **HBLR Traction/Station Power $58 MM**

  65% complete – April 2022 completion (Phase 2)

- **ROC Unit Substation $15 MM**

  45% complete – July 2022 completion

- **Hoboken Terminal House Power $27 MM**

  80% complete – August 2021 completion

MAJOR FACILITY PROJECTS IN CONSTRUCTION

- **Market Street Bus Garage $27 MM**

  Replacement of all major components of the building's mechanical, electrical and structural systems.

  Awarded in March 2021

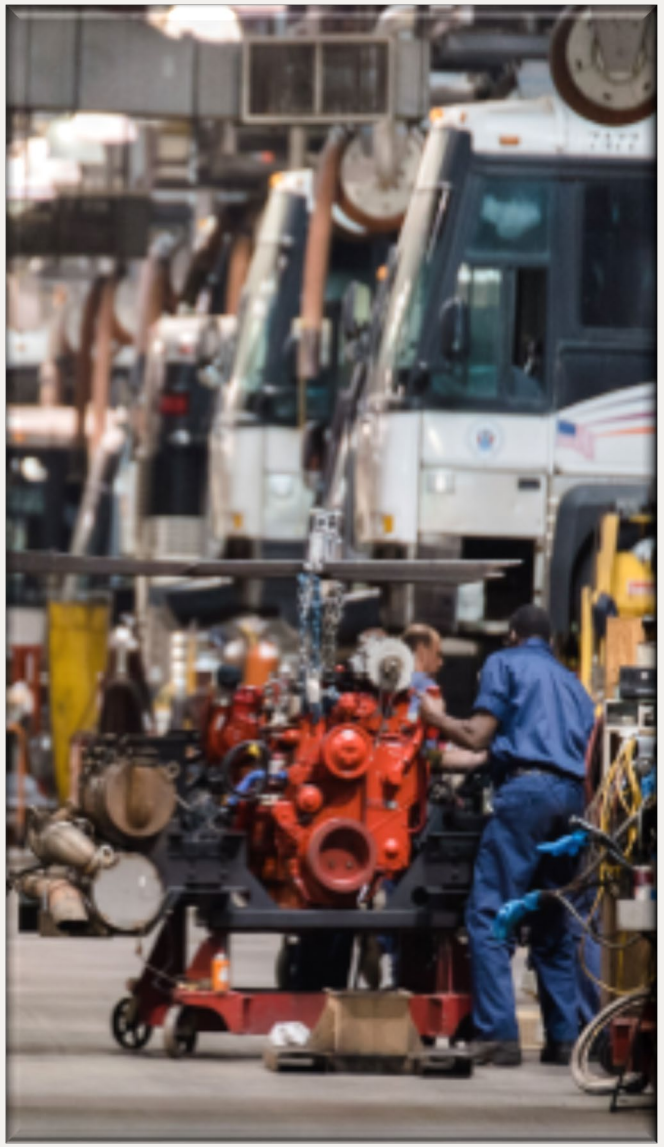
  March 2024 Completion

- **Bus Operations Control Center $18 MM**

  New Control Center at GOB and Southern Division Control Center in South Jersey.

  Awarded in February 2020

  March 2022 Completion



UPCOMING CONSTRUCTION AWARDS

- **Hoboken Yard Signal/Wayside Power Repair $93.9 MM**

  Raised and upgraded feeder and branch cables, transformers, sectionalizing switches, poles, catenary structures and associated hardware.

  Award scheduled for January 2022

- **Perth Amboy Station Improvements $47 MM**

  New high-level platforms to provide full commuter rail accessibility at the Renaissance Revival style station originally built in 1927.

  Award scheduled for October 2021

- **Lackawanna Cut-Off $62 MM**

  First phase (Tunnel Restoration) of the Lackawanna Cut-Off Project from Port Morris to Andover (7.3 miles).

  Award scheduled for December 2021

MAJOR PROJECTS IN DESIGN AND DEVELOPMENT

- **NJ TRANSITGRID $577 MM funded**

  Re-imagined Microgrid Central Facility

  Advertise Contract in December 2021

- **Northern Bus Garage $510 MM** *undetermined*

  Modern Bus Maintenance Facility

  Complete 30% Design in December 2021

- **Newark Penn Station $190 MM of $454 MM committed**

  Restoration of Historic Station

  Issue RFP for a Master Plan/Design in December 2021

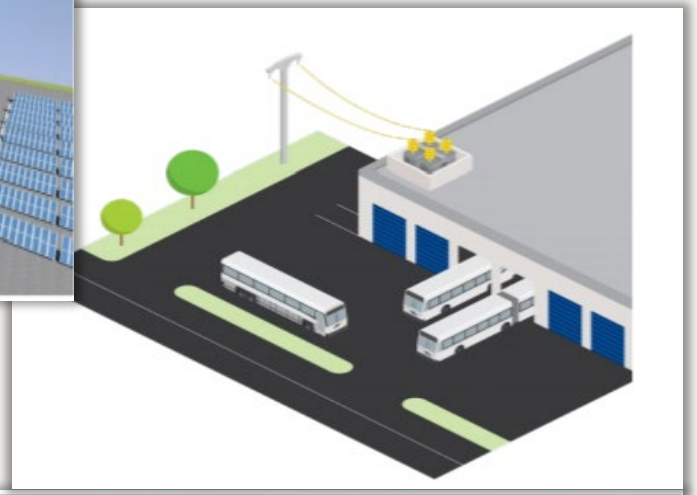
- **Zero Emissions Bus Initiative $11 MM funded**

  Pilot buses and supporting infrastructure at 2 garages

  Award First Contract in late 2021.

- **Secaucus to Meadowlands Transitway** *undetermined*

  Award Design in October 2021.



OTHER MAJOR PROJECTS IN DESIGN OR DEVELOPMENT

- **Rail Station Rehabilitations**
  - Roselle Park (50% design)
  - Trenton Station (10% design)
  - Brick Church Station (90% design)
  - North Elizabeth (design procurement)
  - Bloomfield (scope development)
- **Newark Draw Bridge**
  - RFP for preliminary engineering under development
- **Walter Rand Transportation Center**
  - Funding for Design

PRESENTATION ROADMAP

- FY 2021 Notable Accomplishments
- On-Going Major Capital Projects
- **2021 Capital Plan Update**
- FY2022 Capital Funding Appropriation
- Next Steps in the Planning Process

2022 CAPITAL PLAN UPDATE

- Staff Began Development of the Capital Plan in May 2019
- Governor Murphy Announced the Plan in June 2020
- Board of Directors Approved the Plan in October 2020
- Capital Plan Experienced Actual Expenditure Data in FY2021

2022 CAPITAL PLAN UPDATE

- **Staff Begins the First of Regular Updates in April 2021**

- **Regular Updates Are Necessary to Maintain Plan Validity and Relevancy:**

  Record latest Actual Expenditure Information;

  Revise latest Engineering Cost Estimates;

  Refine latest Schedule Forecasts; and

  Revisit latest Strategic Vision.

APPENDIX A – TABLE 1

Appendix A Table 1: Capital Plan Financial Summary (Update)

($ in Millions)

CAPITAL PLAN FY2021-2025	FY2021	FY2022	FY2023	FY2024	FY2025	5 YEAR TOTAL
Funding Available for Capital Projects *						
Major Projects and Programs *Table 2*	461.60	754.94	1,242.16	1,475.82	1,047.45	4,981.98
Rehabilitation Projects and Programs *Table 3*	62.00	68.24	69.01	71.41	71.41	342.08
Other Existing NJ TRANSIT Program Items *Table 4*	858.82	1,103.88	1,042.91	1,000.41	925.57	4,931.59
TOTAL EXISTING FUNDING	**1,382.43**	**1,927.07**	**2,354.08**	**2,547.64**	**2,044.43**	**10,255.64**
Funding Needs **						
Major Projects and Programs *Table 2*	-	313.09	785.56	1,127.00	1,691.75	3,917.40
Rehabilitation Projects and Programs *Table 3*	-	287.32	231.72	198.04	208.62	925.70
TOTAL FUNDING NEED	**-**	**600.41**	**1,017.28**	**1,325.04**	**1,900.37**	**4,843.10**
TOTAL CAPITAL PLAN	**1,382.43**	**2,527.48**	**3,371.36**	**3,872.68**	**3,944.80**	**15,098.74**

* Reflects available funding to intiate, progress or complete capital projects

** Reflects needed funding to initiate or complete capital projects

APPENDIX A - TABLE 1

- **Total Capital Plan of $15.1 Billion**

  $10.3 Billion of investments supported by existing sources of funds from previous years, the current year or expected sources of funds in future years.

  Funds for $4.8 Billion of proposed investments are still *undetermined*.

- **FY 2022 Capital Funding Appropriation of $1.55 Billion**

  The above $10.3 Billion of funded investments are supported by annual Funding Appropriations from Federal, State and other funding partners. This year's appropriation includes $125 million of CIG to help fund the Portal Bridge North project.

- **Funding for Investments of $4.8 Billion Still Undetermined**

  NJ TRANSIT is undergoing a *prioritization process* to help justify the need for additional funds from potential funding partners.

CAPITAL PROJECT CATEGORIES “BUCKETS”

- Illustrative Priority Projects
- Best Return on Investment
- Fastest to Market
- Legacy Projects

PRIORITY PROJECT BUCKETS

- **Priority Projects**
  - Score highly on many performance indicators
  - ‘Can’t live without’ projects
  - May be long-term campaigns
- **Best Value Projects**
  - Favorable return on investment
  - Best ‘bang for the buck’ projects
- **Shovel Ready Projects**
  - Immediate return on investment
  - Fastest real-world improvements to the system
- **Legacy Projects**
  - Already in design and/or phased construction
  - Most nimble way to progress improvements
  - Opportunities to tie to greater network

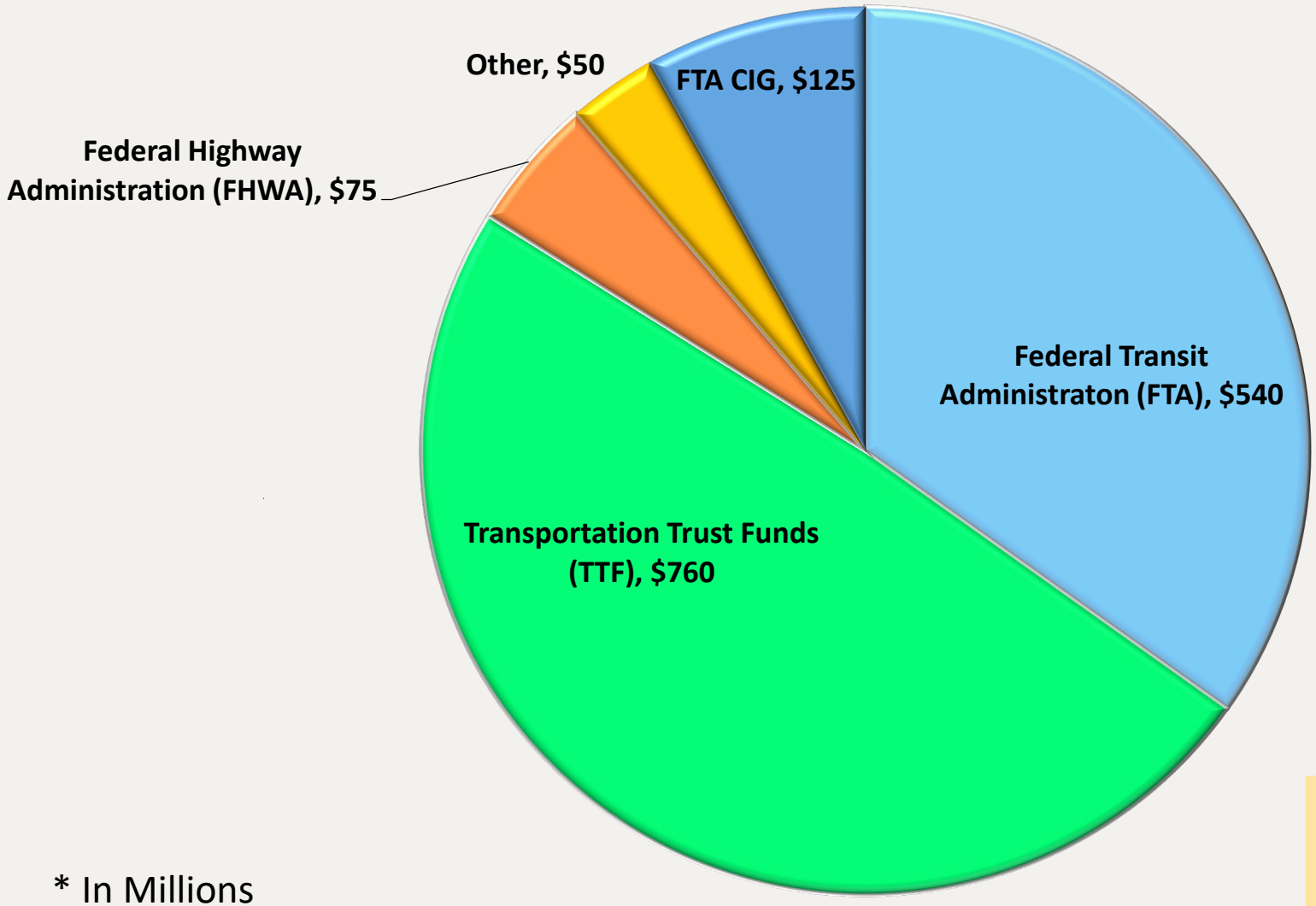
PRESENTATION ROADMAP

- FY 2021 Notable Accomplishments
- On-Going Major Capital Projects
- 2021 Capital Plan Update
- **FY2022 Capital Funding Appropriation**
- Next Steps in the Planning Process

FY2022 CAPITAL FUNDING APPROPRIATION

- Annually, NJ TRANSIT allocates approximately $1.55 Billion of federal, state and other funds to the Capital Program;
- In March 2021, as required by current law, and as part of the NJ TRANSIT budget approval process, the Board of Directors approved a 2-year capital plan appropriation document for fiscal years 2022 and 2023. This Fiscal Year 2022 Appropriation represents the first year of that two-year appropriation.
- The Board of Directors annually authorizes the Chair or President & CEO to take whatever actions are necessary to seek and secure funds envisioned by this Program;
- This Fiscal Year 2022 Funding Appropriation allocates $1.55 billion of resources only to those multi-year projects with funding already designated to them, most of which have already begun construction or are already under contract; and
- This Fiscal Year 2022 Funding Appropriation does not allocate any resources to the $4.8 Billion portion of *2021 Capital Plan Update* without designated funding.

FY2022 CAPITAL FUNDING APPROPRIATION



* In Millions

Total $1.550B

FY2021 DISCRETIONARY AWARDS

- **Substation 41 Improvements**
  - Federal State Partnership for SOGR
  - $36,408,410 Award
- **Electric Buses for Hilton Garage (Maplewood)**
  - Low No Emissions Program
  - $7,074,310 Award
- **Wayne Bus Garage Modernization**
  - Buses and Bus Facilities Program
  - $14,672,995 Award
- **Trenton Transit Center**
  - Federal State Partnership for SOGR
  - $18,281,313 Award

PRESENTATION ROADMAP

- FY 2021 Notable Accomplishments
- On-Going Major Capital Projects
- 2021 Capital Plan Update
- FY2022 Capital Funding Appropriation
- **Next Steps in the Planning Process**

NJ TRANSIT STANDS READY TO:

- Continue Forward with Aggressive Improvements based on the $10.3 Billion **Funded** Portion of the Capital Plan.
- Gear Up Support for Finding Ways to Source the remaining **Funding Needs** of $4.8 Billion.
- Prove that NJ TRANSIT Can Execute Successfully All of these Exciting Projects.

ITEM 2107-47: NJ TRANSIT 2021 CAPITAL PLAN UPDATE ADOPTION AND FISCAL YEAR 2022 AUTHORIZATION TO SECURE CAPITAL FUNDING

WHEREAS, NJ TRANSIT's Five-Year Capital Plan addresses the needs of NJ TRANSIT customers by ensuring system safety and reliability through state-of-good-repair investments, addressing system capacity demands, and investing in planned system expansion; and

WHEREAS, in October 2020, NJ TRANSIT Board of Directors approved an unconstrained vision called *A 5-Year Capital Plan* – to demonstrate opportunities for safety, service reliability, resiliency, sustainability, and other improvements critical to NJ TRANSIT. *A 5-Year Capital Plan* was the result of a rigorous process involving all agency planning, operating, safety, financial, police, customer service, environmental and engineering personnel; and

WHEREAS, working together, they established and prioritized a pool of projects, balancing corporate strategic objectives to ensure the highest and best use of limited capital funds. This Plan called for continued investment in the State's transit infrastructure to maintain a state of good repair and provide reliable transit service. It included comprehensive, sustainable, and measurable initiatives to ensure passenger and public safety for the system; and

WHEREAS, to provide a regular set of updates to the Capital Plan, NJ TRANSIT has formulated the *2021 Capital Plan Update* which contains two (2) sets of planned and proposed capital investments totaling $15.1 Billion – the first set includes $10.3 billion worth of investments already funded from previous, current and/or future expected funding resources. The second set identifies another $4.8 billion worth of investments without any source of past, current and/or future funding. Although there are no sources of funds for the second set of investments, NJ TRANSIT believes, nonetheless, that these additional projects are necessary to achieve its vision of providing world class service which increases reliability by reducing equipment breakdowns, infrastructure failures and service interruptions; and

WHEREAS, annually, NJ TRANSIT is appropriated expected funding from a variety of Federal, State and Other sources, which it then allocates to different multi-year investments in various stages of planning, design and construction; and

WHEREAS, this year's Fiscal Year 2022 Capital Funding Appropriation equals $1.550 billion and represents an expected funding source that will provide, along with other past and future annual appropriations, the funds needed to execute the $10.3 billion FUNDED portion of investments in the FY2021-FY2025 Capital Plan. The Fiscal Year 2022 Capital Funding Appropriation allocates funds only to those existing projects and does not address any outstanding funding needs identified in the *2021 Capital Plan Update*; and

WHEREAS, in March 2021, as required by current law (P.L. 2018, c. 162), and as part of the NJ TRANSIT budget approval process, NJ TRANSIT's Board of Directors approved a two-year capital plan appropriation document for Fiscal Years 2022 and 2023; and

WHEREAS, this Fiscal Year 2022 Appropriation of $1.550 billion consists of $540 million from the Federal Transit Administration (FTA), $125 million in federal Capital Investment Grants (CIG), $75 million in flexed funds from the Federal Highway Administration (FHWA) provided through the New Jersey Department of Transportation (DOT), $760 Million to be provided by New Jersey Transportation Trust Funds (TTF), and $50 million of Local Match, Turnpike Authority funds and other State general funds; and

WHEREAS, each Fiscal Year, NJ TRANSIT's Board of Directors authorizes the Chair or President & CEO to take whatever actions are necessary to seek and secure the funds envisioned by the Program of Projects with the understanding that the Board will approve individual fiscal year capital plans for the upcoming fiscal years;

NOW, THEREFORE, BE IT RESOLVED that the NJ TRANSIT Board of Directors adopts the *2021 Capital Plan Update,* which is an update to *A Five-Year Capital Plan,* an unconstrained vision of projects to demonstrate opportunities for safety, service reliability, resiliency, sustainability, and other improvements critical to NJ TRANSIT; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to take whatever actions are necessary to seek and secure the funds envisioned by this Program of Projects; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to transfer funding sources and amounts among programmed projects as circumstances require, in compliance with the terms and conditions of the grants and other funding sources; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to make application, execute contracts or agreements, and take whatever other actions are necessary to seek and secure funds, consistent with the basic intent of this program, which may become available subsequent to its adoption.

NJ TRANSIT

Capital Plan Update - 2021

July 2021 | An Unconstrained Vision for NJ TRANSIT

[This Page Is Intentionally Left Blank]

I TABLE OF CONTENTS

EXECUTIVE SUMMARY

1 STATE OF THE PLAN

2 PROGRESS IN FISCAL YEAR 2021

3 TWO-YEAR OUTLOOK

4 UPDATED CAPITAL PLAN PROCESS

5 APPENDICES

EXECUTIVE SUMMARY

NJ TRANSIT's Five-Year Capital Plan is a comprehensive investment strategy that presents what NJ TRANSIT can achieve with sustained and dependable funding over an extended period of time. The Capital Plan describes the projects and programs that have received funding and are currently advancing, and provides an unconstrained vision for what can be accomplished over twenty years with additional support. This first update to the initial Capital Plan, is a progress report on the first year of the plan's implementation following its June 2020 release. NJ TRANSIT has recommitted to the plan in expectation of recovery and growth in a post-pandemic environment.

Over the past year, NJ TRANSIT's range of services has been a critical link, enabling New Jersey to weather the effects of the COVID-19 pandemic and its associated social and economic impacts. During this time, NJ TRANSIT has continued to deliver affordable, efficient and essential access to jobs, schools, health care, stores and other destinations for the people of New Jersey. Front line workers who administer health needs and provide essential daily services have had uninterrupted access to work via NJ TRANSIT. The Capital Plan has advanced on schedule. Investment in the construction and design of the infrastructure detailed in the Capital Plan has evolved to address changing conditions, including the provision of new services to the underserved, delivering a better quality of life, and reviving the regional economy.

A YEAR THAT CHANGED THE LANDSCAPE FOR TRANSIT

Over the past year, the pandemic has affected the transit system, particularly ridership, but has not changed the need for ongoing investment to address the needs of a growing and shifting population. In response, NJ TRANSIT remains committed to the long-term vision and projects in the Capital Plan. The changes brought by the pandemic include the following:

- Low-income and minority communities have suffered disproportionate health, social, and economic impacts, highlighting the need for greater equity in the delivery of transit service.

- There has been a sharp decrease in NJ TRANSIT ridership, largely as a result of people who have been working remotely or have lost their jobs, but ridership is now recovering.

- Essential workers—who must travel to work locations to provide health care, deliver food and other essentials, keep government services going, and provide other services—have played a critical role in the response to the pandemic, and their access to transit services has been critical to the continued functioning of the state.

- Demographic shifts, including changes in the distribution of population and jobs among cities, suburbs, exurbs, and towns, may have impacts on transit demand.

» Federal funding partners are searching for local agencies prepared to advance infrastructure investments guided by equity, sustainability, and resiliency. There is a renewed interest at the national level in transit agencies taking the lead in combating climate change and aiding disadvantaged communities to help narrow historic inequities, advancing environmental justice, and promoting affordable access to transportation.[1]

These changes may have lasting impacts on how NJ TRANSIT customers use transit. They could affect the balance of ridership between bus and rail, ridership levels during different times of day, and what bus routes or rail and light rail lines see changes in service demand. Until we achieve equilibrium with a "new normal," it is difficult to say with certainty which changes will be permanent.

1 Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, January 20, 2021, https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/

ADVANCING THE CAPITAL PLAN WHILE RESPONDING TO CHANGE AND ADDING FLEXIBILITY

To address this uncertainty and remain nimble, NJ TRANSIT is planning for investments that can address a range of possible outcomes. Evaluating alternative outcomes and how they affect market demand and service plans, will enable NJ TRANSIT to respond flexibly to emerging changes in travel patterns as New Jersey comes back strong from the pandemic and the associated economic downturn. Many elements of the Capital Plan were designed to increase agency flexibility, such as information technology and supporting infrastructure that enhances the ability to improve the efficiency and flexibility of assets, such as buses, in response to changing service demands.

As part of the process of updating the Capital Plan some adjustments were made to the process:

» The relative weights of the evaluation criteria used to prioritize projects were adjusted to highlight the importance of Resiliency, Equity, Inclusion, and Accessibility. These criteria have gained in importance as the disruptive events of the past year had major impacts on people of low-income and raised new health concerns.

» A newly assembled Capital Advisory Team (CAT) will re-examine priorities quarterly, review available funding, and keep projects moving forward.

Specific Capital Plan projects and programs are being expedited to address needs that are now more acute around the State. These range from projects that strengthen economic activity and employment opportunities in New Jersey hubs to projects that address changing demographics by adding pedestrian and bicycle facilities to complement transit and provide "last mile" connections for those living in areas more removed from major transit lines.

Since the start of the fiscal year last June, despite the impacts of the pandemic, NJ TRANSIT has continued to aggressively advance the projects in the Capital Plan, consistent with the priorities and schedule established by Governor Phil Murphy. Numerous projects are now shovel-ready and can move into construction. Many of the most significant projects advance one or more of these key policies:

» **Implementation of major capital projects to improve safety and efficiency.** In December 2020, NJ TRANSIT's Positive Train Control (PTC) system was certified by the Federal Railroad Administration (FRA), meeting the deadline for implementation.

» Investments that **improve sustainability of the transit system and advance the goal of reducing greenhouse gas emissions.** The introduction of electric buses, along with charging and maintenance infrastructure, will enable the bus fleet to comply with New Jersey's recent S2252 legislation for procuring electric buses and stay on track to become 100 percent zero emission over the next 20 years. The recent announcement of a comprehensive and aggressive roadmap to transform the NJ TRANSIT bus fleet to 100 percent zero emissions across all garages, including the design and construction of a new Northern Bus Garage to jumpstart the program, further reinforces the agency's commitment to clean air and a better environment for all. Building on this roadmap, NJ TRANSIT recently won a grant from the Federal Transit Administration's Low or No Emissions Grant Program to purchase up to four articulated electric buses that would be based out of the Hilton Garage and would serve a route in Newark and Irvington.

» Investments that **improve the resiliency of the transit system to respond and recover quickly from extreme weather events.** The Long Slip project at Hoboken Yard, which provides additional rail operating capacity, will improve the facility's ability to recover from extreme weather events and will offer increased redundancy for the rail tunnels under the Hudson River and New York Penn Station. NJ TRANSITGRID will provide redundancy for limited operations between New York's Penn Station and NJ TRANSIT's Jersey Avenue Station in New Brunswick, the Morris & Essex line between Hoboken Terminal and Maplewood Station, and the Hudson-Bergen Light Rail, as well as provide power to signals along a portion of the Main Line. Additional resiliency

projects, developed in response to Superstorm Sandy, include improving substations and making signals along the Hudson Bergen Light Rail and four rail lines (Main, Bergen, Pascack Valley, and Morris & Essex) less vulnerable to extreme weather events. New buses (especially electric buses), and new technology for tracking and dispatching buses will allow for more rapid and responsive roll-out of service changes and will supply the redundancy required for greater resiliency.

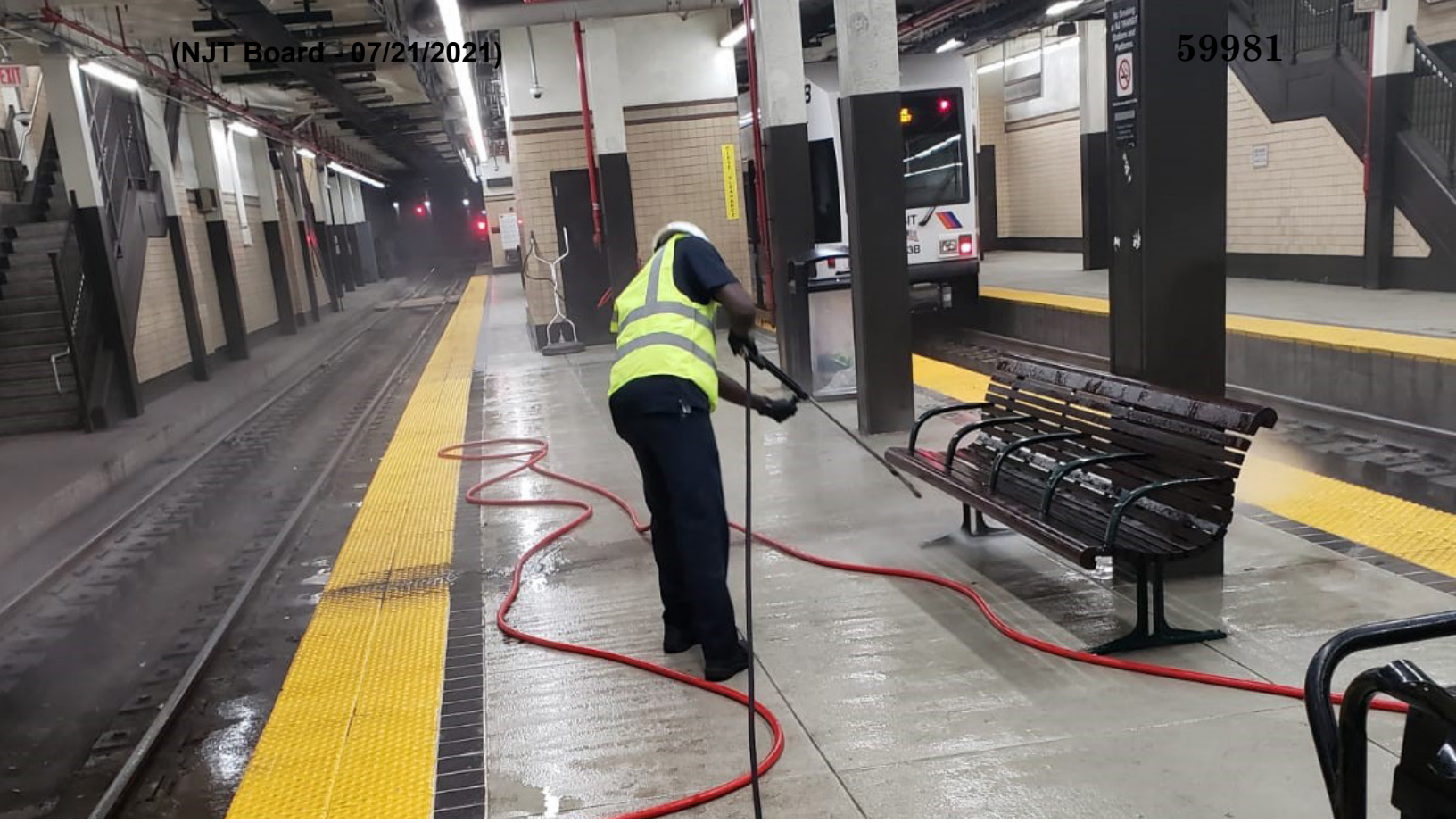
» Projects that **facilitate economic opportunity and revitalize central hubs.** Modernization and rehabilitation of Newark Penn Station will contribute to the revival of downtown Newark. The rehabilitation of the Walter Rand Transit Center will improve access and connectivity to Camden and support community development opportunities. Another new project added to the Capital Plan is the Secaucus to Meadowlands (Boonton) Transitway, which will directly connect major developments and regional employment generators to a transit hub.

» Projects that **fix bottlenecks on congested corridors will reduce delays and provide more reliable rides to large numbers of riders and address regional needs.** The Portal Bridge North project is now ready to start construction and NJ TRANSIT has completed a $770 million Capital Investment Grant Agreement with the US Department of Transportation.

» **Better customer experience and increased accessibility of the system.** The design and construction of fully accessible, renewed or replaced, rail stations at Perth Amboy, Elizabeth, Lyndhurst, Roselle Park, New York Penn Station, Newark Penn, Trenton Station, Brick Church, and North Elizabeth have been accelerated and are in various levels of project development from concept to shovel in ground.

» Projects that **address equity by meeting the needs of underserved communities, communities that suffer the effects of air pollution and individuals who have not had full access to the transit system.** A larger bus fleet and cleaner, electrified buses, together with new and upgraded garages and maintenance facilities, provide the tools to address these priorities. Accessibility improvements will improve rail station access, and an improved Access Link system, with more capacity and resources that enhance customer service, will further augment fixed transit service.

» Investments that **make transit safer and healthier for customers,** such as contactless payment technology and more real-time data on arrival times and crowding.



CAPITAL SPENDING NUMBERS

This Capital Plan update projects total capital expenditures of $10.255 billion over the FY2021 to FY2025 period. According to Appendix A Table 1, NJ TRANSIT projects to spend almost $1.382 billion in FY2021, $1.927 billion in FY2022, $2.354 billion in FY2023, $2.548 billion in FY2024, and $2.044 billion in FY2025. Funding for this $10.255 billion worth of initiatives is assigned, meaning that these funds already have been allocated, obligated, or assigned from grants or funds from either previous year funding allocations, the current year allocation, or future expected funding allocations.

In this Capital Plan update, NJ TRANSIT has also identified another $4.843 billion of investments with undetermined funding. However, these investments are deemed necessary and critical to increase reliability by reducing equipment breakdowns, infrastructure failures and service interruptions. These investments, added to the funded portion of the Capital Plan, result in a total Capital Plan worth $15.098 billion. Of this amount, approximately $10.255 billion is funded and $4.843 billion remains undetermined.

FIGURE I-1: CAPITAL PLAN REPORT CADENCE

FY2022 CAPITAL FUNDING ALLOCATION

Each July, NJ TRANSIT presents to its Board of Directors the expected sources of funds for the coming fiscal year. The FY2022 Capital Funding Allocation is a bundle of resources amounting to $1.550 billion from the following sources: Federal Transit Administration (FTA); Federal Capital Investment Grants (CIG); Federal Highway Administration (FHWA); New Jersey Transportation Trust Fund (TTF), and other sources. These funds, along with funds from previous and/or future funding allocations, will be used only for improvements in the $10.255 billion funded portion of the Capital Plan.

CAPITAL PLAN PROCESS

This is the first annual update of the Capital Plan. NJ TRANSIT will release annual updates to inform the public on the progress of the capital plan as projects are planned, funded, designed, constructed and delivered. The annual updates will describe the current programming of funds and address the evolving needs of New Jersey, changes in technology, and other factors that shift the direction in the implementation of the Capital Plan.

In the middle of the five-year cycle, NJ TRANSIT will prepare a Mid-Plan update that will communicate the capital plan's progress and implementation status; the plan's anticipated state at the end of the five-year cycle; emerging challenges, trends and opportunities that may influence the revision of the capital plan, and how lessons learned will impact the next five-year planning process.

At the end of the five-year cycle, NJ TRANSIT will release a new five-year capital plan that will respond to 20-year project/program needs.

Time Destination Train Status Track
9:47 Port Jervis 45 Boarding 3
9:57 Spring Valley 1607 Pascack Valley 4
10:35 Ridgewood 1253 Bergen County 11
PLEASE NOTE TRACK CHANGE
10:36 Gladstone 415 Morris & Essex 16
10:38 Suffern 1111 Main 17
11:14 Spring Valley 1611 Pascack Valley 13
11:35 Ridgewood 1255 Bergen County 4
11:36 Gladstone 417 Morris & Essex 15
11:38 Suffern 1113 Main 9
WELCOME TO HOBOKEN TERMINAL. PLEA
"EWR" Indicates Train Service to Newark Int'l Airport Station
Time Destination
12:35 Ridgewood
12:36 Gladstone
12:38 Suffern
12:43 Spring Valley
1:13 Middletown NY
1:35 Waldwick
1:39 Gladstone
1:43 Suffern
1:50 Spring Valley
1:58 Dover
SE WATCH YOUR STEP.
"EWR" Indicates Train Service

1 STATE OF THE PLAN

1 STATE OF THE PLAN

Since the release of the Five-Year Capital Plan in June 2020, New Jersey has continued to suffer from the effects of the COVID-19 pandemic and the resulting economic downturn. As part of the effort to stay safe and responsibly address the threat to public health, many state residents have chosen to stay at home to the extent possible, have ordered home delivery of food and other essentials, and have worked or studied remotely. Many residents have temporarily or permanently lost their jobs. The New Jersey unemployment rate was 7.2 percent in May 2021, up from 3.4 percent in 2019. Low-income communities have been significantly impacted. As a result of these and other factors, NJ TRANSIT total ridership decreased by over 50 percent in 2020.

Through it all, NJ TRANSIT has continued to deliver affordable, efficient and essential access to jobs, schools, health care, stores, recreation and other destinations for the people of New Jersey. Front liners who administer health needs and provide necessary daily services have had access to work via transit. This essential public service remains more important than ever during the pandemic, which has been particularly destructive in transit-dependent communities. The provision of high-quality and efficient transit will support the State's recovery as residents are freed from constraints on their daily activities.

The Capital Plan provides the guidance for investment in rolling stock, technology and infrastructure essential to keeping the nation's largest statewide transit system going, providing the mobility that powers the state economy. NJ TRANSIT has proceeded with the construction and design work described in the Capital Plans with the understanding that investment in transportation infrastructure is critical to the quality of life in New Jersey.

The Capital Plan, by its nature, is grounded in long-term thinking. It outlines not only projects to be delivered in the immediate five-year period, but also offers an unconstrained vision for sustaining and improving an innovative, world-class public transit system that can meet customer travel needs over the next 20 years. Many of the transformative projects that can lead New Jersey deeper into the 21st century will require more than five years to develop, and that groundwork must be laid now.

The health and economic hardships of the past year, particularly those suffered by the most vulnerable populations, highlight the importance of comprehensive public transit investments provided for in the Capital Plan. The pandemic has also reinforced the need to "take another look" and advance certain capital priorities already in the plan, has stimulated new thinking, and has reinforced the importance of a flexible approach to implementation.

The starting point is NJ TRANSIT's Strategic Plan (NJT2030: A Ten-Year Strategic Plan), which is grounded in the idea that maintaining a state of good repair is essential to delivering high-quality and reliable service to NJ TRANSIT customers. With proper planning and investment, NJ TRANSIT's infrastructure and equipment can benefit from targeted improvements in business performance, enhance the customer experience, improve safety, and make the system more resilient and sustainable. New approaches to executing the Capital Plan, which have been developed in response to the events of the past year and described in this update, tie back to these NJT2030 goals. NJ TRANSIT developed performance indicators to drive the evaluation and implementation of capital projects and programs supporting the NJT2030 strategic goals.

NJT2030 STRATEGIC GOALS

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

These performance indicators translate the Strategic Plan's goals into metrics applicable to capital projects. The five performance indicators remain:

State of Good Repair

Repair or rehabilitate facilities, vehicles and infrastructure so that they can operate at a safe, reliable and efficient level of performance and meet current industry standards.

Customer Experience

Provide customers with a positive transit experience by being responsive to their ever-changing needs and expectations.

Safety

Provide a safe environment for customers and employees by incorporating industry best practices for safety and security at transit facilities and on-board transit vehicles.

Resiliency

Ensure NJ TRANSIT is a dependable and resilient transportation network by investing in adaptable solutions for the evolving profile of natural and man-made risks and protecting existing infrastructure.

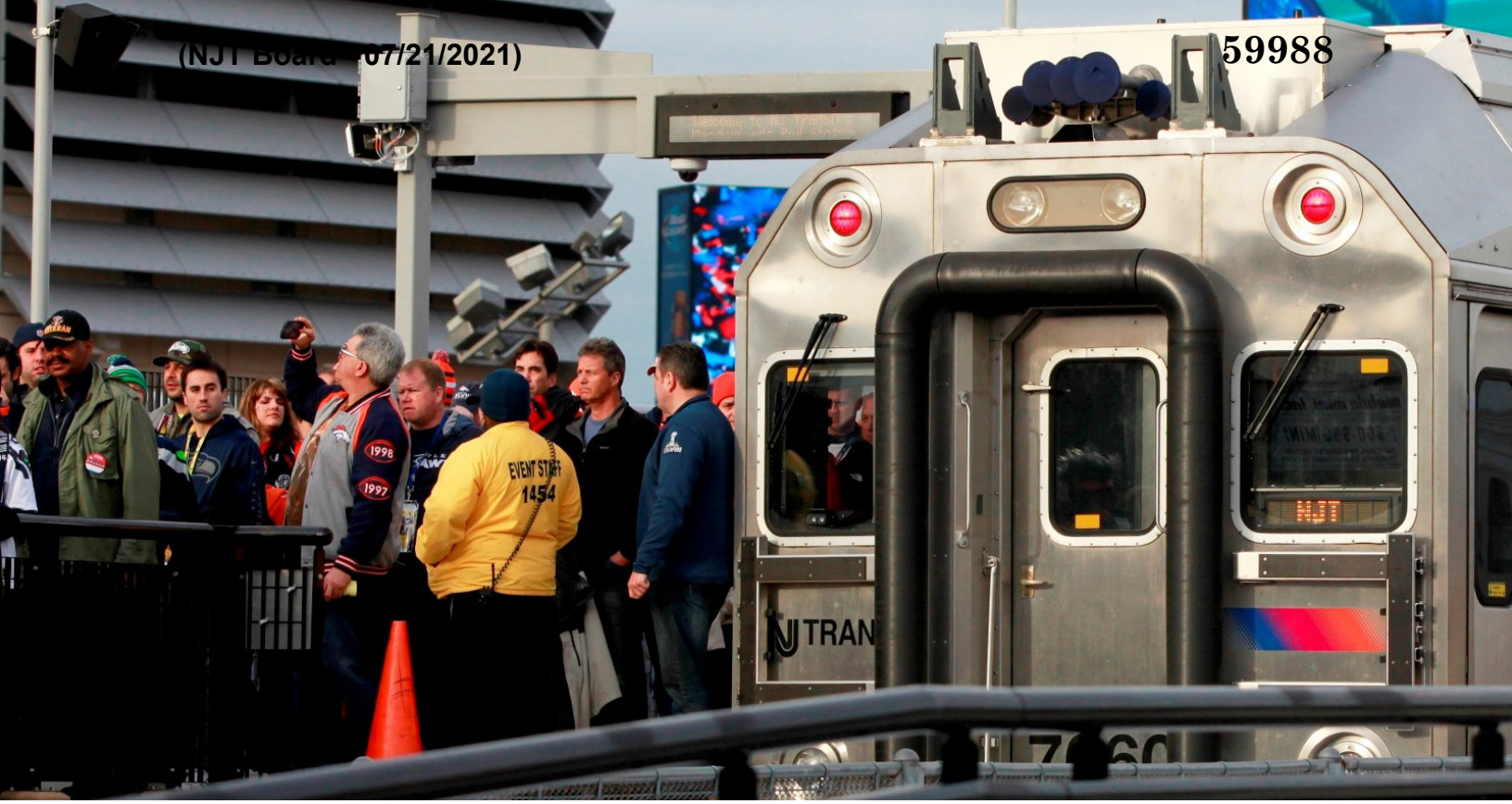
Business Performance

Ensure NJ TRANSIT's ability to provide service into the future by investing in opportunities to improve financial sustainability. These include real estate and value capture opportunities, reducing operating costs and increasing ridership revenue.

Neither the pandemic nor its economic effects change these goals and performance indicators, but they have had an impact on the Capital Plan. Since March 2020, a number of new realities have affected the transit system and Plan implementation:

- Low-income and minority communities have suffered disproportionate health, social and economic impacts that have highlighted the need to assure greater equity in the delivery of transit services..
- There has been a sharp decrease in NJ TRANSIT ridership. Rail ridership has fluctuated between 20 and 25 percent of pre-pandemic levels. Bus ridership has recovered more quickly, but with large disparities depending on the route. While bus ridership into New York City is at 35 percent of what it was, bus ridership within New Jersey is back up to 70 percent.

- The critical role played by essential workers—who must travel to work locations to deliver goods and services, provide health care, deliver food and other essentials, keep government services going, and staff stores and other businesses that provide direct in-person services—has been borne out. Their ability to access transit services has emerged as a key priority.
- Conversely, large numbers of office workers, who have been productive working remotely and avoiding daily commutes, are using transit less often, especially in peak periods.
- Demographic shifts have occurred that may have long-term impacts on transit demand and its geographic patterns. These shifts may include changes in the distribution of population and jobs among large cities, suburbs, exurbs, smaller cities and towns.
- An increased reliance on home delivery of food and other products has had an impact on retail that may affect transit demand. Some stores have gone out of business, and shopping centers face an uncertain future.
- Federal funding partners are searching for local agencies prepared to advance infrastructure investments guided by equity, sustainability, and resiliency. There is a renewed interest at the national level in transit agencies taking the lead in combating climate change, aiding disadvantaged communities to help narrow historic inequities, advancing environmental justice, and promoting affordable access to transportation.



These changes, together with other impacts of the pandemic and economic downturn, may have lasting impacts on how our customers use transit. They could affect the balance of ridership between bus and rail, ridership levels during different times of day, and what routes or lines see changes in service demand. However, the long-range impacts on the volume, nature and timing of travel demand are yet unknown. Until we achieve equilibrium with a “new normal,” it is difficult to say with certainty which changes will be permanent or will drive a future vision.

1.1 MAINTAINING COMMITMENT AND MOMENTUM

Since the start of the fiscal year last June, despite the impacts of the pandemic, NJ TRANSIT has continued to advance the projects in the Capital Plan, consistent with the priorities and schedule established in the plan. Several projects are now shovel-ready and can move into construction as part of any state or federal economic stimulus program. Many of the most significant projects advance a handful of key policies:

» **Implementation of major capital projects to improve safety and efficiency.** In December 2020, NJ TRANSIT's Positive Train Control (PTC) system was certified by the Federal Railroad Administration (FRA), meeting the deadline for implementation. This major capital project illustrates how technology can reduce the risk of human error and improve safety.

» Investments that **improve sustainability of the transit system and advance the goal of reducing greenhouse gas emissions.** The introduction of electric buses, along with charging and maintenance infrastructure, will enable the bus fleet to comply with New Jersey's recent S2252 legislation for procuring electric buses and stay on track to become 100 percent zero emission over the next 20 years. The recent announcement of a comprehensive and aggressive roadmap to transform the NJ TRANSIT bus fleet to 100 percent zero emissions across all garages, including the design and construction of a new Northern Bus Garage to jumpstart the program, further reinforces the agency's commitment to clean air and a better environment for all. Building on this roadmap, NJ TRANSIT recently won a grant from the Federal Transit Administration's Low or No Emissions Grant Program to purchase up to four

articulated electric buses that would be based out of the Hilton Garage and would serve a route in Newark and Irvington.

- Investments that **improve the resiliency of the transit system to respond and recover quickly from extreme weather events.** The Long Slip project at Hoboken Yard will improve the facility's ability to recover from extreme weather events and will offer increased redundancy and capacity for the rail tunnels under the Hudson River and New York Penn Station. NJ TRANSITGRID will provide redundancy for limited operations between New York's Penn Station and NJ TRANSIT's Jersey Avenue Station in New Brunswick, the Morris & Essex line between Hoboken Terminal and Maplewood Station, and the Hudson-Bergen Light Rail, as well as provide power to signals along a portion of the Main Line. Additional resiliency projects, developed in response to Superstorm Sandy, include improving substations and making signals along the Hudson Bergen Light Rail and four rail lines (Main, Bergen, Pascack Valley, and Morris & Essex) less vulnerable to extreme weather events. New buses (especially electric buses), and new technology for tracking and dispatching buses will allow for more rapid and responsive roll-out of service changes and will supply the redundancy required for greater resiliency.
- Projects that **facilitate economic opportunity and revitalize central hubs.** Modernization and rehabilitation of Newark Penn Station will contribute to the revival of downtown Newark. The rehabilitation of the Walter Rand Transit Center is designed to improve access to Camden and create community development opportunities.
- Projects that **fix bottlenecks on congested corridors.** Portal Bridge North will provide a faster, more reliable ride to large numbers of riders and address regional needs.
- Projects that **address equity** by meeting the needs of underserved communities, the needs of communities that have experienced underinvestment and borne more than their fair share of environmental impacts, and the requirements of individuals who have not had full access to the transit system. A larger bus fleet and cleaner, electrified buses, together with new and upgraded garages and maintenance facilities, provide the tools to address these priorities, and will be used to reassess bus routes and service levels. Accessibility improvements will improve rail station access, and an improved Access Link system will augment fixed transit service.
- Investments that **make transit safer and healthier** for customers, such as contactless payment technology and new train cars, more real-time data on arrival times and crowding.

1.2 CAPITAL SPENDING NUMBERS

This Capital Plan update projects total capital expenditures of $10.255 billion over the FY2021 to FY2025 period. According to Appendix A Table 1, NJ TRANSIT projects to spend almost $1.382 billion in FY2021, $1.927 billion in FY2022, $2.354 billion in FY2023, $2.548 billion in FY2024, and $2.044 billion in FY2025. Funding for this $10.256 billion worth of initiatives is assigned, meaning that these funds already have been allocated, obligated, or assigned from grants or funds from either previous year funding allocations, the current year allocation, or future expected funding allocations.

In this Capital Plan update, NJ TRANSIT has also identified another $4.843 billion of investments with undetermined funding. However, these investments are deemed necessary and critical to increase reliability by reducing equipment breakdowns, infrastructure failures and service interruptions.

These investments, added to the funded portion of the Capital Plan, result in a total Capital Plan worth $15.098 billion. Of this amount, approximately $10.255 billion is funded and $4.843 billion remains undetermined.

1.3 FY2022 CAPITAL FUNDING ALLOCATION

Each July, NJ TRANSIT presents to its Board of Directors the expected sources of funds for the coming fiscal year. The FY2022 Capital Funding Allocation is a bundle of resources amounting to $1.550 billion from the following sources: Federal Transit Administration (FTA); Federal Capital Investment Grants (CIG); Federal Highway Administration (FHWA); New Jersey Transportation Trust Fund (TTF), and other sources. These funds, along with funds from previous and/or future funding allocations, will be used only for improvements in the $10.255 billion funded portion of the Capital Plan.

MADISON
7722

7046

2 PROGRESS IN FISCAL YEAR 2021

2 PROGRESS IN FISCAL YEAR 2021

This section provides an overview of progress made to date in FY2021 in implementing the Capital Plan by describing the status of signature projects that are ready for or in the design process, and projects that are ready for or have initiated construction. In addition, projects that require funding are highlighted. Figure 2-1 highlights the various projects included in FY2021.

Additional information on project phase and progress, estimated costs, and funding for each project mentioned in this section is included in Appendix A.

2.1 NEW PROJECTS ADDED TO THE CAPITAL PLAN SINCE JUNE 2020

Secaucus to Meadowlands (Boonton) Transitway

This project will evaluate alternatives and develop designs for a rapid transit system (aka "Transitway") between NJ TRANSIT's Secaucus Junction Station and the Meadowlands Sports and Entertainment Complex. The system could employ a combination of new and existing transportation infrastructure to accelerate the implementation of revenue service. In addition, the project will assess options to enhance local mobility within the project area, defined as the catchment area of the Boonton Line between roughly Montclair and Secaucus, with additional consideration of later stages that could extend to Newark and Jersey City.

Zero Emissions Bus System Design and Investment Planning Study

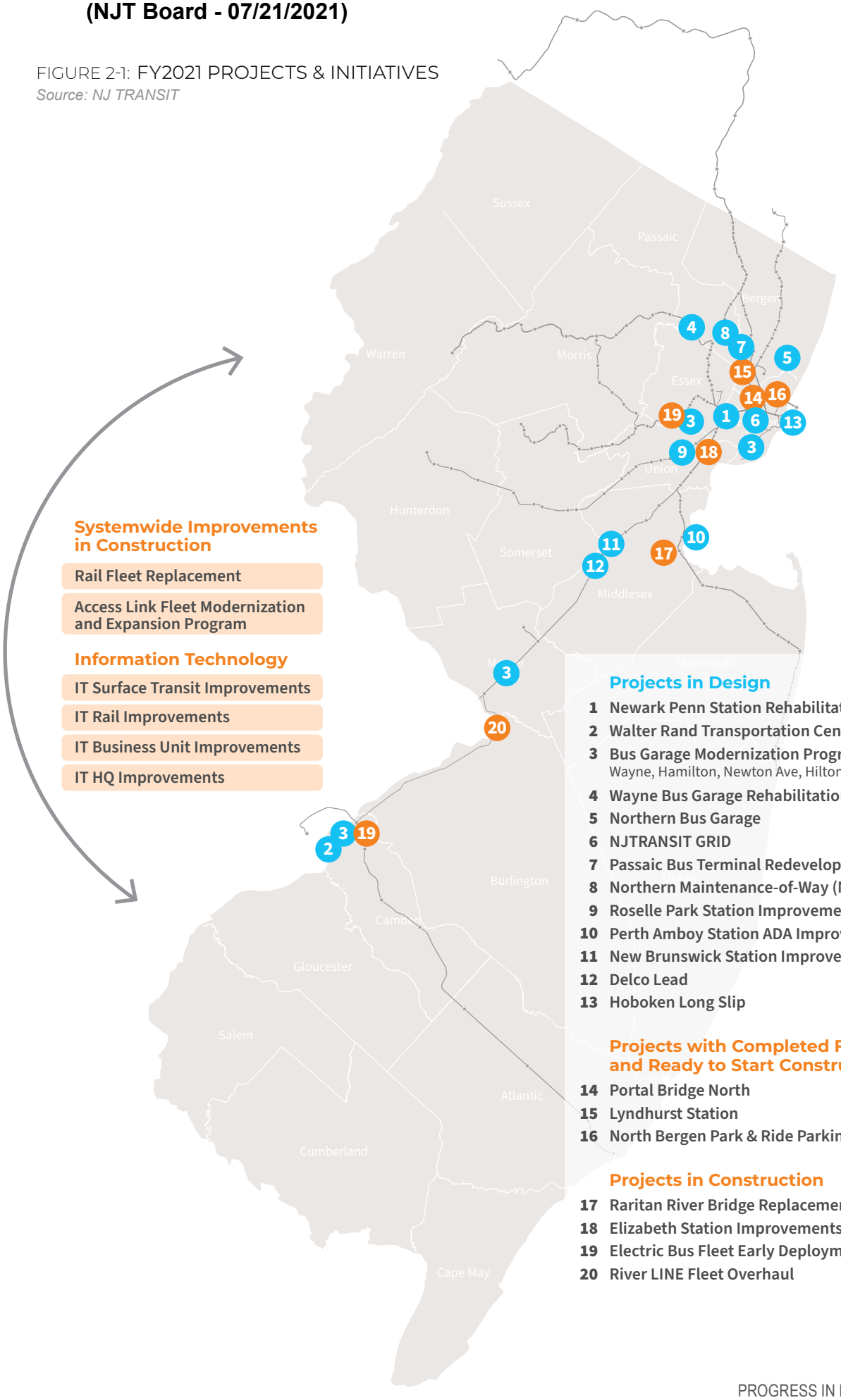
This study will establish best practices and standardization for zero emission bus equipment and operational practices, as well as develop garage-by-garage transition plans and investment plans to achieve a zero emission fleet. The study will help NJ TRANSIT comply with New Jersey's recent S2252 legislation. The legislation establishes initial targets: a) by December 31, 2024, at least 10 percent of NJ TRANSIT's new bus purchases must be zero emission buses, and the percentage of zero emission bus purchases must increase to 50 percent by December 31, 2026, and b) by December 31, 2025, at least 25 percent of State-owned non-emergency light duty vehicles must be zero emission. Both targets increase to 100 percent of both fleets by later years specified in the legislation. NJ TRANSIT's specific best practices will be put in place to establish the proper design, equipment, technology, and training for implementing the zero emission bus system. This project will integrate a 500-vehicle zero emission bus fleet deployment plan with scenario planning and transition planning to ensure that NJ TRANSIT can fully transition to a zero emission bus fleet by 2040.

Perth Amboy Station Accessibility Improvements

This project will construct high-level platforms, elevators, ramps, pedestrian overpasses, widened sidewalks, and access paths where appropriate. In some instances, accessibility improvements will be paired with physical condition upgrades to improve the station's overall state of good repair. This project currently has funding.

FIGURE 2-1: FY2021 PROJECTS & INITIATIVES

Source: NJ TRANSIT



Systemwide Improvements in Construction

- Rail Fleet Replacement
- Access Link Fleet Modernization and Expansion Program

Information Technology

- IT Surface Transit Improvements
- IT Rail Improvements
- IT Business Unit Improvements
- IT HQ Improvements

Projects in Design

1. Newark Penn Station Rehabilitation
2. Walter Rand Transportation Center Redevelopment
3. Bus Garage Modernization Program, Phase 1
   Wayne, Hamilton, Newton Ave, Hilton, and Greenville
4. Wayne Bus Garage Rehabilitation and Modernization
5. Northern Bus Garage
6. NJTRANSIT GRID
7. Passaic Bus Terminal Redevelopment
8. Northern Maintenance-of-Way (MOW) Facility
9. Roselle Park Station Improvements
10. Perth Amboy Station ADA Improvements
11. New Brunswick Station Improvements
12. Delco Lead
13. Hoboken Long Slip

Projects with Completed Final Design and Ready to Start Construction

14. Portal Bridge North
15. Lyndhurst Station
16. North Bergen Park & Ride Parking Garage

Projects in Construction

17. Raritan River Bridge Replacement
18. Elizabeth Station Improvements
19. Electric Bus Fleet Early Deployment
20. River LINE Fleet Overhaul

2.2 PROJECTS IN DESIGN

Newark Penn Station Rehabilitation

From basic station infrastructure pieces to larger scale circulation plans and elements, Newark Penn Station will be assessed and improved as part of the modernization effort (see Figure 2-2). This effort is intended to improve the station's functionality, but it is also meant to restore the station to its rightful place as a crown jewel in the heart of Newark. The station serves as a critical link for NJ TRANSIT for commuter rail, bus and light rail service. It is the busiest on NJ TRANSIT's system that is owned by the agency and is an essential node for customers traveling between New York and points west, as well as for customers traveling within the state.

The project will begin with a holistic review of all station elements. Once that is complete, the project consultant will work to put forward design alternatives intended to bring the station up to a basic state of good repair and to improve the customer experience in a variety of ways. Robust master planning efforts will target the station itself and the area surrounding the station to improve mobility, create economic growth opportunities, and improve multimodal connectivity in the station and beyond. An artwork plan will put forward a process to beautify the station and make it into a destination hub for customers and for Newark residents.

FIGURE 2-2: NEWARK PENN STATION REHABILITATION DIAGRAM
Source: NJ TRANSIT

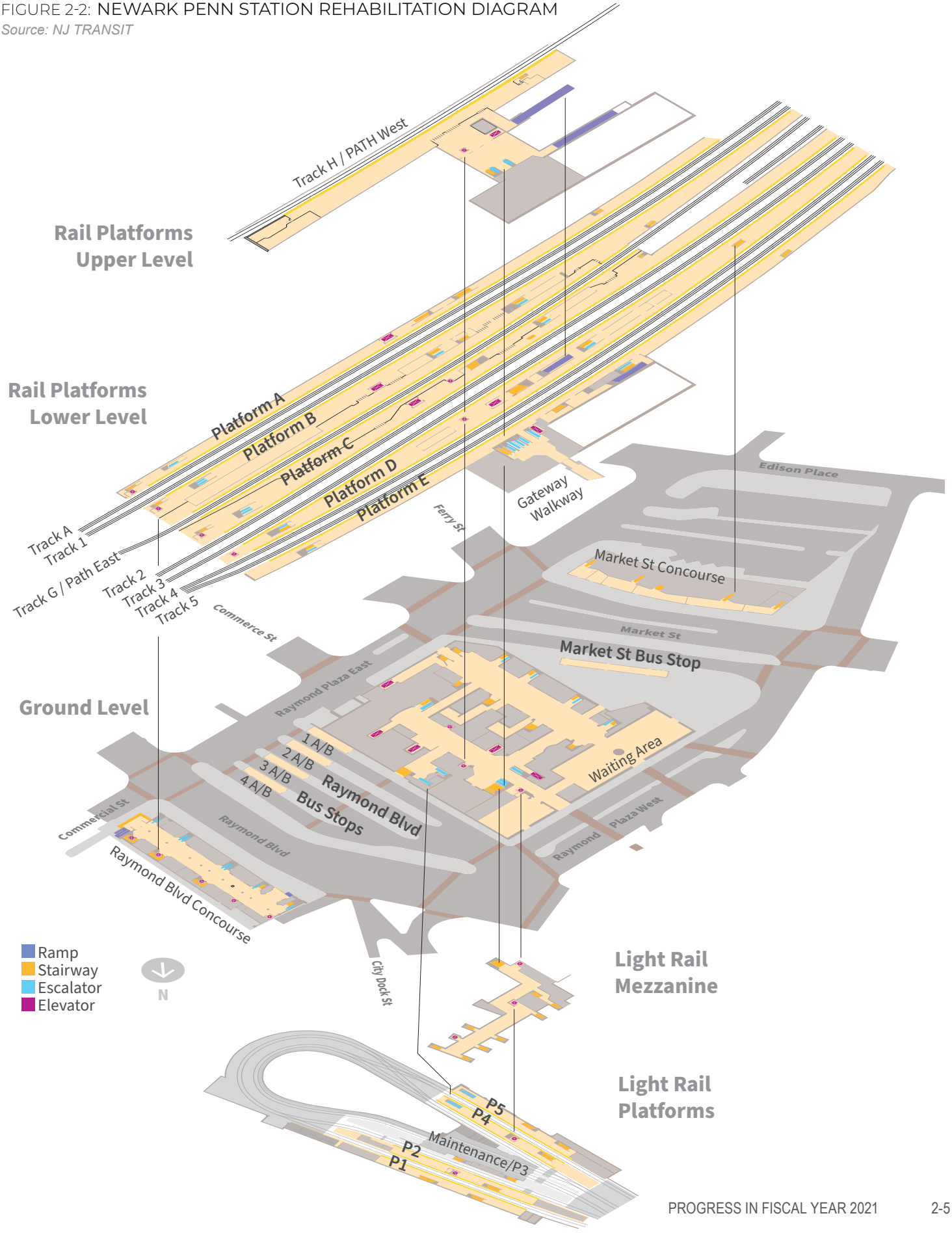
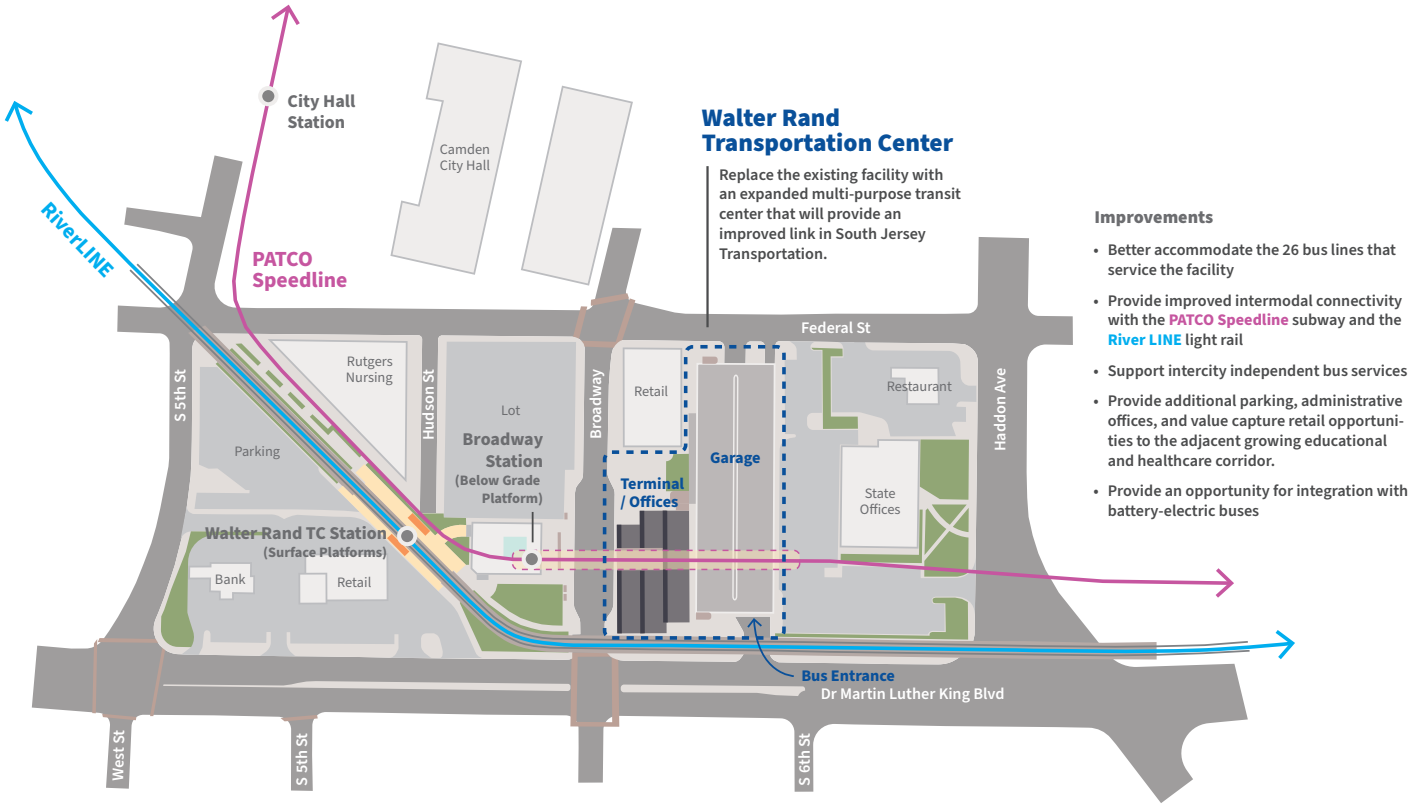


FIGURE 2-3: WALTER RAND TRANSPORTATION CENTER REDEVELOPMENT DIAGRAM
Source: NJ TRANSIT



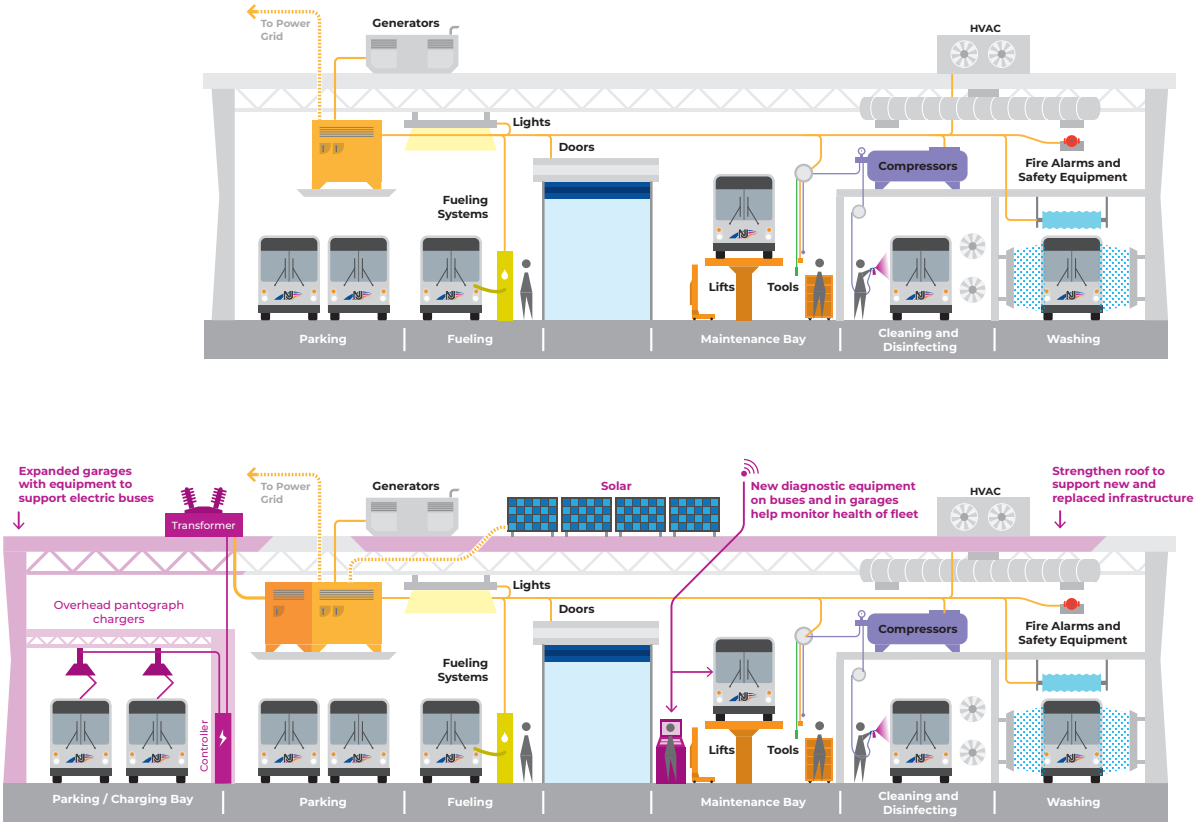
The station's ability to improve its HVAC and air exchange, in light of pandemic-related concerns, will be assessed, and a model will investigate passenger flow throughout the station and recommend improvements to flow patterns. The plan will also outline the business case for undertaking this project. By the time this project is complete, a strong set of plans and recommendations will chart a path forward to tackle small- and large-scale needs at the station, including short-, medium- and long-term construction schedules (along with phased design documents).

Platform D renovations are fully funded and entering final design. The remainder of the improvements are expected to enter concept design in late FY2022.

Walter Rand Transportation Center Redevelopment

This project will redesign the existing intermodal facility with an expanded multi-purpose transit center to provide an improved transit link for residents of Camden and the surrounding South Jersey region. The new transit center will better accommodate the 26 bus lines that serve the facility; provide improved intermodal connectivity with the PATCO Speedline subway and the River LINE light rail; support intercity independent bus services; and provide additional parking, administrative offices, and value capture retail opportunities to the adjacent growing educational and healthcare corridor. The project will also provide an opportunity for integration of electric buses. This project currently has funding for preliminary design only (see Figure 2-3).

FIGURE 2-4: BUS GARAGE MODERNIZATION, PHASE 1: BEFORE & AFTER CONCEPTUAL DIAGRAM
Source: NJ TRANSIT



Bus Garage Modernization Program, Phase 1

This project will provide NJ TRANSIT with the necessary infrastructure to house and maintain a world class electric bus fleet that will increase efficiency, improve reliability, and reduce the environmental footprint (see Figure 2-4). Implementation of this project will comply with the state legislative mandates. These upgrades include charging stations, electrical service upgrades, and other related equipment.

The first phase of the project will convert five NJ TRANSIT bus garages for zero emission vehicle operations. These five garages (Wayne, Hilton, Greenville, Hamilton, and Newton Avenue) have been selected due to their limited-range routes, the level of service provided, and the project impact on ridership capacity. Hilton and Greenville garages serve the Jersey City and Newark areas, the Hamilton garage provides service to the Trenton area, the Newton garage serves the greater Camden area, and the Wayne garage serves the greater Passaic and Hudson County areas. The remaining 11 bus garages will be modernized in later phases to be functionally equivalent to the first five and to support implementation of NJ TRANSIT's Zero Emission Bus program.

Phase 1 will accommodate the replacement of diesel transit buses (40-foot buses) with 40-foot zero emission vehicles and articulated buses (60-foot zero emission vehicles). This project currently has funding. Phases 2 and 3 of the project will occur after 2025 and will include the full modernization and replacement of garages where needed. This project is funded through preliminary design, which is expected to commence in late FY2022.

Wayne Bus Garage Rehabilitation and Modernization

Wayne Bus Garage Rehabilitation and Modernization is a component of the Bus Garage Modernization Project and includes new roofs, HVAC systems, new lifts and doors, and improvements to enable the charging and servicing of electric buses. Portions of this project are funded and received a federal grant. The project is currently in final design.

Northern Bus Garage

The Northern Bus Garage project will result in the construction of a new bus garage to increase the storage and maintenance capacity of NJ TRANSIT's statewide bus fleet by as much as 20 percent to allow for future service expansion. This increase in capacity will help NJ TRANSIT keep pace with anticipated growth in bus ridership and provide additional capacity to absorb buses from other garages while they are rehabilitated, upgraded, or replaced. The new Northern Bus Garage will be designed from the ground-up to be ready to accommodate a 100 percent zero emissions bus fleet, will have solar panels on the roof, and feature modern fleet diagnostics and maintenance equipment.

NJTRANSIT GRID

Since receiving a Record of Decision (ROD) from the Federal Transit Administration in April 2020, NJ TRANSIT is working to incorporate renewable energy and storage into the NJ TRANSITGRID project to better align with New Jersey's Energy Master Plan. The NJ TRANSITGRID project involves constructing a central microgrid facility (MCF) and a distributed generation system. In addition to providing emergency backup power, these resources will also allow NJ TRANSIT to participate in peak "shaving" practices to lower the cost of electricity from the regional grid. The project will incorporate distributed energy, renewable energy (solar panels and flywheels), and other technologies to provide power to key NJ TRANSIT facilities. The proposed facility will handle limited operations on the Northeast Corridor between New York's Penn Station and NJ TRANSIT's Jersey Avenue Station in New Brunswick, the Morris & Essex line between Hoboken Terminal and Maplewood Station, and the Hudson-Bergen Light Rail Transit System. The project will also provide power to the signal system on a portion of the Main Line. This project currently has funding.

Passaic Bus Terminal Redevelopment

This project will replace the existing bus terminal, currently located on Main Avenue in Passaic, with a new off-street terminal facility. The new location will provide space for up to 12 buses within the terminal facility and provide amenities such as improved lighting, PA systems, customer information displays, and off-board fare collection. This project is funded and currently in final design.

Northern Maintenance-of-Way (MOW) Facility

This project involves the construction of a new rail MOW facility in Clifton along NJ TRANSIT's Main Line. The MOW facility houses the equipment and personnel responsible for maintaining the railroad, which includes the tracks and signal systems. The new site would be large enough to support additional MOW equipment, as well as provide adequate administrative space for the growing staff. Additionally, more space will be provided for parking and storing MOW equipment. Replacing the existing obsolete MOW facility with a larger, more modern MOW facility will allow NJ TRANSIT to better address the maintenance needs of the railway and provide more consistent and reliable service to customers. This project currently has funding and has progressed to design.

Roselle Park Station Improvements

This project will address structural and cosmetic deficiencies and rehabilitate Roselle Park Station to bring it to a state of good repair, extending its overall service life. An elevator will be installed to provide accessibility to the platform. Enhanced signage and communications will be incorporated, providing customers with station information and rail service status. This project currently has funding and is in final design.

New Brunswick Station Improvements

This project will extend the existing eastbound platform at New Brunswick Station by 150 feet, rehabilitate or replace elevators and escalators, install new lighting and windows at the station, upgrade HVAC system, and renovate the waiting room. This project currently has funding.

County Yard Expansion - Site Preparation:

This is the first phase of the Delco Lead -County Yard Expansion project. This preparatory phase will provide necessary environmental cleanup, sanitary sewer relocation, and other site preparatory work required before County Yard is reconstructed and expanded. This first phase is presently completing design and expected to complete construction by the start of FY2024.

Delco Lead – Lead Tracks and Extension:

The second phase of the Delco Lead - County Yard Expansion project will reconstruct the existing Delco Lead track and construct an adjacent track from County Yard to North Brunswick to provide the capacity to store additional rail cars during extreme weather events. The new track will extend to the proposed Midline Loop Project in North Brunswick. This second phase is concluding final design soon and will complete construction in FY 2025.

Hoboken Long Slip

The two-phased project will first fill in the existing canal with structural fill and surcharging. The second phase includes construction of six new tracks with high level platforms and a small crew quarters facility on the filled in canal. This project currently has funding.

2.3 PROJECTS WITH COMPLETED FINAL DESIGN AND READY TO START CONSTRUCTION

Portal Bridge North

This project will replace the existing Portal Bridge with a new two-track fixed structure that will enhance capacity and reliability along the Northeast Corridor. The new bridge span directly over the Hackensack River will have a clearance that accommodates current and forecasted maritime traffic, thereby eliminating the need for a movable span that interrupts rail operations and results in delays due to mechanical failures. The new bridge design will improve reliability by allowing NJ TRANSIT to operate longer and higher capacity trains. Additionally, trains will be able to cross the bridge at 90 mph, rather than the 60 mph they must travel today. In January 2021, the US Department of Transportation announced completion of a Capital Investment Grant agreement with NJ TRANSIT to fund the project. The project has been advertised to contractors.

2.4 PROJECTS IN CONSTRUCTION

Raritan River Bridge Replacement

This project includes replacement of the existing obsolete bridge with a new, two-track vertical lift bridge on an improved vertical alignment. The new movable structure will provide a more resilient structure with additional vertical clearance above the 100-year flood elevation. The introduction of new mechanical and electrical systems will provide for more reliable movable span operations, resulting in reduced maintenance costs. In addition, improved navigation channel geometry at the lift span will significantly reduce the risk of vessel collision with the bridge's pier protection systems. This project currently has funding and is under construction.

Lyndhurst Station

This project will construct a new Lyndhurst Station east of the existing station to provide accessibility to and from the existing parking lot. The new station will have accessible high-level platforms and station enclosures on the eastbound and westbound tracks, elevators, sheltered walkways, and heated waiting areas. The new station will provide customers with a safer, more accessible, and enhanced experience overall. This project currently has funding and is in construction.

Newark Light Rail State of Good Repair and Rehabilitation Program, Phase 1

NJ TRANSIT has developed a multi-phase program to complete improvements throughout the Newark Light Rail system. Components of this program are already under construction, including a project to replace approximately 2,000 linear feet of track, track structures, and drainage at the Bloomfield and Davenport stations

Elizabeth Station Improvements

This project will reconstruct two longer length, high-level concrete passenger platforms to better accommodate full-length NJ TRANSIT trains. These platforms will be fully accessible, reduce dwell times, facilitate timely passenger boardings, and increase service speed. New station buildings with new elevators, stairs, ticketing offices, operational office spaces, and retail spaces are also being constructed. The station rehabilitation project will accommodate a proposed future fifth track along the NEC to be built by Amtrak. New IT infrastructure to support network security, PA system, customer signage, and fare systems will also be included. This project currently has funding and is under construction.

Newark Light Rail State of Good Repair and Rehabilitation Program, Phase 1

NJ TRANSIT has developed a multi-phase program to complete improvements throughout the Newark Light Rail system. Components of this program are already under construction, including a project to replace approximately 2,000 linear feet of track, track structures, and drainage at the Bloomfield and Davenport stations and project to provide repairs to signal shorting at Track Circuits 244 and 255.

2.5 ROLLING STOCK

Bus Fleet Replacement Program (Cruiser & Articulated Buses

This fleet replacement program will replace buses, scheduled by order of age, until all buses within the NJ TRANSIT fleet are operating within their anticipated service life and the average age of the fleet has decreased significantly. Some existing 40-foot NABI buses in the north and central operating regions will be replaced with new 60-foot articulated buses to help keep pace with ridership growth and increase comfort by reducing crowding. This will be the last in a series of diesel bus procurements until garages are ready for zero emission buses.

Electric Bus Fleet Early Deployment

NJ TRANSIT has a goal of converting the entire bus fleet to zero emission vehicles by 2040 to comply with New Jersey's S2252 legislation. To begin the conversion, NJ TRANSIT is proposing to convert two to three percent of the NJ TRANSIT bus fleet to zero emission vehicles. An additional 21 articulated transit buses (60-foot zero emission vehicles) will be deployed at a new northern garage location

Rail Fleet Replacement

This program will focus on replacing all of NJ TRANSIT's single-level vehicles with multi-levels vehicles over the next eight years. Existing multi-level vehicles will also be overhauled during this time period to increase car efficiency and comfort. In addition, about 25 dual-power locomotives (which can run on both diesel- and electric-powered rail lines) will be added to the fleet, while about 10 diesel locomotives will be retired. These actions will ultimately reduce the average fleet age and significantly improve reliability.

Access Link Fleet Modernization and Expansion Program

This program will expand the Access Link fleet to meet projected ridership growth, maintain a state of good repair, and keep vehicles current with the latest technology, accessibility options, safety equipment, and customer amenities. Vehicles will be replaced on a first-in first-out basis on a five-year and/or 250,000-mile useful service lifecycle. The replacement plan will allow for 25 percent fleet growth. The first vehicles that qualify for replacement will be replaced with hybrid vehicles. By the end of 2025, 25 percent of the Access Link light duty fleet will be plug-in electric. In addition to reducing carbon emissions, the larger vehicle fleet will deliver more service to low-income populations. This project currently has funding.

River LINE Fleet Overhaul

This project will provide mid-life overhauls to the existing light rail vehicles in service on the River LINE. Overhauls will include mechanical and customer-facing repairs, replacement, and upgrades. The project complements NJ TRANSIT's ongoing engine repower effort to replace older engines with new engines that meet current EPA standards for emissions, provide better fuel efficiency, and include upgrades to control and diagnostic capabilities. Completing these overhauls will extend vehicle service life by a minimum of 10 years and provide a safer and more reliable experience for passengers. This project currently has funding.

5268
126
NEW YORK
Get It All
OWNED BY: NEW JERSEY TRANSIT CORPORATION
OPERATED BY: NJ TRANSIT BUS OPERATIONS
US DOT - 074293
NJMVC 55231

2.6 INFORMATION TECHNOLOGY

IT Business Unit Improvements

NJ TRANSIT is investing in a set of internal, business unit. and customer-facing IT infrastructure projects to create safer, more secure, and more robust processes that improve the overall customer experience, provide real time information updates, and better support employees in their work.

One of the projects in progress is deploying eBuilder software to replace existing legacy systems and standardize and improve existing processes related to projects, project funding, improved capital planning capabilities, and reporting. Another project in progress project focuses on fare modernization and early steps towards implementing contactless payments.

IT HQ Improvements

This set of projects will improve and modernize NJ TRANSIT's IT infrastructure, security, support, monitoring, and PMO software.

Projects in progress include the addition of new hardware and cloud-based systems to support more resilient IT infrastructure, software upgrades, IT service desk automation, upgrades to conference room hardware, and digitizing records and documents.

IT Surface Transit Improvements

This set of projects will upgrade the software used on buses and at bus garages and depots, improve ticket validation and availability of real-time travel information, and implement new braking, breakdown detection, and collision warning systems to improve driver aid and customer safety. Projects in progress include upgrading Wi-Fi at the Meadowlands Bus Garage, upgrading Teledriver software, implementing Radio Redundant Data Mode (RDM) for bus operations, and upgrading PA systems.

2.7 EMERGING NEEDS

Since the release of the Capital Plan, NJ TRANSIT has leveraged its capital planning efforts to address the emerging needs of the state. Over the coming years, NJ TRANSIT will intensify its focus on projects that address equity by meeting the needs of underserved communities, projects that increase the resiliency of the agency's assets, and strategies to continue serving customers during and after the pandemic.

At the federal level, equity concerns surrounding Title VI have become more pronounced on projects that affect low-income and minority communities. Projects considered for the Capital Plan in the future will be evaluated using an equity criterion to understand how they could impact low-income and minority communities.

Supporting projects that have resiliency components is a clear focus for future grant opportunities. Given this support and the pressing need to prepare the transit system for climate change and extreme weather events, NJ TRANSIT will continue to prioritize projects that improve the resiliency of the system and the state. Resiliency may take the form of adding redundancy to the system to ensure continued transit operations during an extreme weather event or relocating projects or elements of a project outside of a floodplain.

NJ TRANSIT has implemented strategies to better serve customers since the beginning of the pandemic and will continue to be responsive to customer needs. Since the pandemic began, NJ TRANSIT has adapted its fare systems to enable customers to have more flexible ticket options for passes instead of the typical monthly passes and updated its app to supply customers with more real time data, including how many passengers are on each train car. These options empower customers to make safe and informed decisions when using transit. While many of these improvements are operational, NJ TRANSIT will develop and support Capital Plan projects and programs that dovetail with these initiatives and allow for more flexible and reliable transit service and support evolving customer needs.

EQUIPMENT
NFL
EAGLES

3 TWO-YEAR OUTLOOK

3 TWO-YEAR OUTLOOK

This section provides an overview of projects that will progress during FY2022 and FY2023. Projects expected to be in design or begin construction are discussed. Rolling stock projects, which were introduced in Section 3, will also be ongoing during FY2022 and FY2023. Additional information on project phase, estimated costs, and funding for each project mentioned in this section is included in Appendix A.

3.1 PROJECTS THAT WILL BE IN DESIGN IN FY2022 AND FY2023

Trenton Station Improvements

This project will rehabilitate the station's concrete platform. This includes reconstruction of the platform edge, addition of new tactile strips and rub rails, reconstruction of platform deck joints, and repairs to concrete spalls. Improvements to the existing overhead canopy will include structural repair/replacement of deteriorated steel members, full painting of the steel canopy structure, and installation of a new roof drainage system. Canopy enhancements will include new LED lighting, new variable message sign boards, and a new public announcement system with enhanced speakers. All existing elevators and escalator will be upgraded.

North Elizabeth Station Improvements

This project will address structural and cosmetic deficiencies and bring the station to a state of good repair. Necessary work includes fully replacing the station's high-level platforms and canopies, rehabilitating the existing railing, and improving lighting and security. The project is currently advancing as a study.

River LINE Light Rail Vehicle Fire Suppression System

This project is part of NJ TRANSIT's River LINE State of Good Repair and Rehabilitation Program. Currently in design, the project will install a fleet-wide light rail vehicle fire suppression system to increase safety and bring the fleet up to a state of good repair

Edison Station Improvements

This project will relocate an existing freight turnout switch east of the station to facilitate a platform extension. Extending the platform would allow a 12-car trainset to fit at the station, resulting in increased operational efficiency, decreased dwell times, and improved passenger boarding. Additionally, the existing platform would be replaced with a high-level platform to extend service life, mitigate future maintenance, and improve safety.

County Yard Expansion - Rail Yard

The third phase of the Delco Lead – County Yard Expansion project will reconstruct and expand the County Yard tracks to increase rail equipment storage space and enhance operations. Design of the rail yard will end in mid FY2023 with construction concluding in early FY2027.

Delco Lead - Service and Inspection Facility

The fourth and last phase of the Delco Lead – County Yard Expansion project will construct a 1,250-foot long service and inspection facility, crew quarters and employee parking lot at the facility. Design of the service and inspection facility will finish in late FY2023 and construction will be completed in late FY2026.

3.2 PROJECTS IN PROCUREMENT TO BE IN DESIGN IN FY2022 AND FY2023 IF FUNDING IS FORTHCOMING

Hoboken Terminal and Yard Resilient Redevelopment Program, Phase 1

This project is the first in a three-phase approach to address Hoboken Terminal's state of good repair and resiliency challenges, provide opportunities for increasing capacity for rail, bus, light rail, and ferry service, and improve overall operation and passenger flow between the Terminal's various transportation modes. Phase 1 of the Redevelopment Program will address the facilities that require immediate attention to maintain state of good repair and current services, while facilitating the future long-term development goals of Phases 2 and 3. Included in Phase 1 will be rehabilitation of the existing Long Hallway and YMCA buildings; track, bridge and structural improvements to increase commuter capacity, and provision for additional equipment inspection capabilities.

Newark Draw Bridge Replacement & Capacity Enhancement

This project will replace the existing bridge with a more reliable, three-track bridge to enhance capacity and increase operating efficiency on the Morris and Essex, Gladstone, and Montclair-Boonton Lines to accommodate future ridership growth. While in the design phase, further research into the latest minimum vertical clearance requirements for maritime vessels per United States Coast Guard standards will be necessary to determine if the existing vertical lift bridge could be replaced with a more economical and reliable fixed bridge.

Newark Light Rail Station Modernization and Access Program

This project will enhance passenger safety, modernize fare collection, and improve accessibility across the Newark Light Rail system. Passenger safety enhancements will include the introduction of platform edge doors (PED) to prevent passengers from entering track areas or getting too close to moving trains. Four Newark Light Rail stations — Park Avenue, Norfolk Avenue, Warren Street/NJIT, and Military Park — will receive accessibility improvements, such as construction of elevators, platform reconstruction, improved signage, and enhanced communications systems.

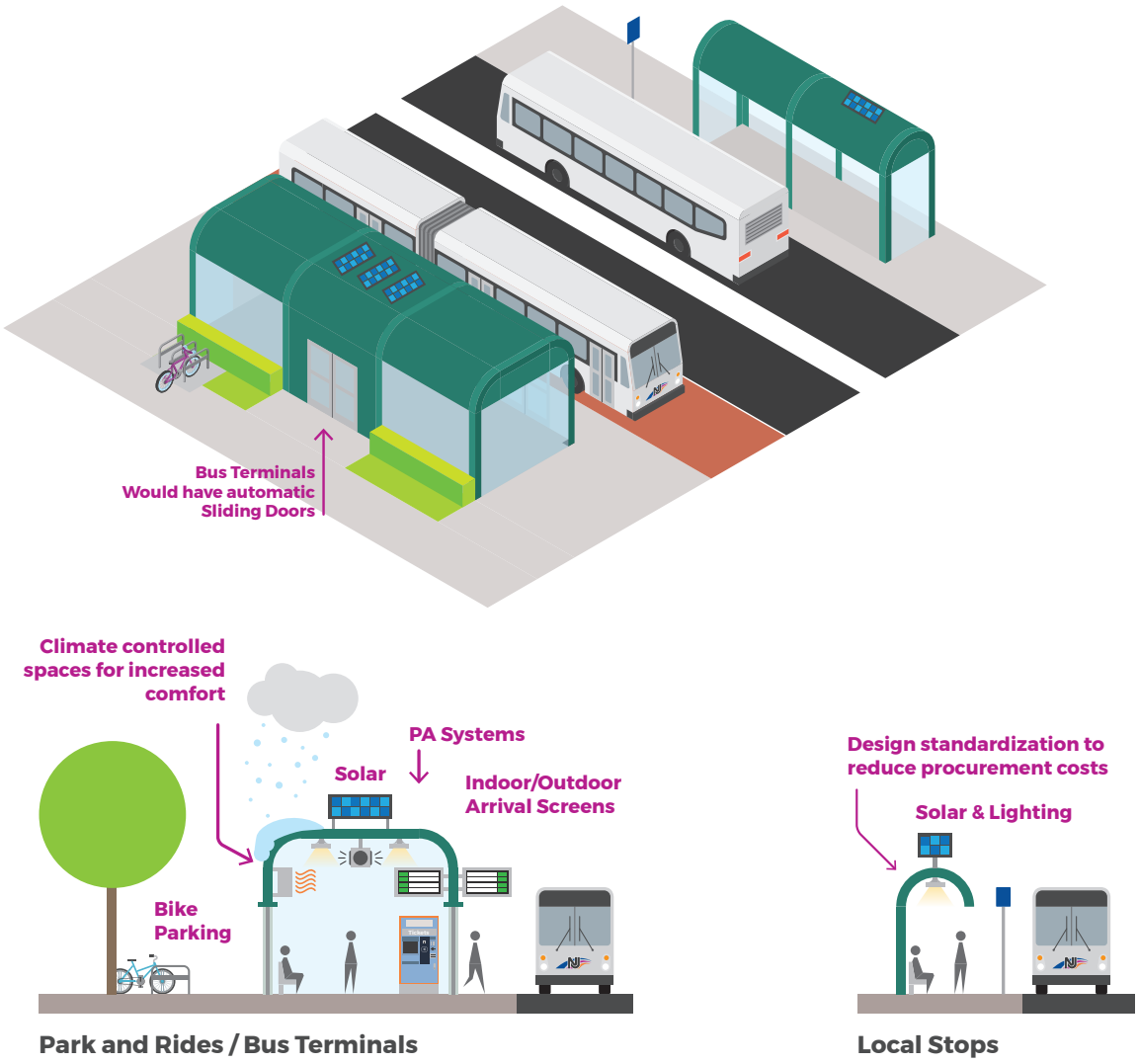
Brielle Draw Bridge Replacement and Capacity Enhancement

This project will replace the existing bridge with a more reliable, higher capacity, double-track movable bridge that has a higher vertical profile. The new bridge will provide increased rail capacity and improved operational efficiency along the North Jersey Coast Line corridor while reducing operating costs. To raise the bridge's vertical profile, the grade crossings on either side will need to be reconfigured. The raised vertical profile of the bridge will reduce the number of required marine openings, thereby reducing service disruptions, while also mitigating the risk of flood damage and potential for extended service outages during extreme events.

Regional Rail Station Modernization and Access Program

This project will construct high-level platforms, elevators, ramps, pedestrian overpasses, widened sidewalks and access paths at 30 station locations (see Figure 4 2). In some instances, accessibility improvements will be paired with physical condition upgrades to improve overall station state of good repair. Projects at Bloomfield, Orange, Brick Church, Chatham, Avenel, and Dunellen/Netherwood/ Fanwood stations are expected to be among the first of these to move forward.

FIGURE 3-1: REGIONAL RAIL STATION MODERNIZATION AND ACCESS PROGRAM: GENERAL IMPROVEMENTS



3.3 PROJECTS THAT WILL START CONSTRUCTION IN FY2022 AND FY2023

West Summit Interlocking

This project has two phases. The first phase includes relocating the West Summit interlocking further west of the existing station and interlocking, installing a new turn track on the Gladstone Line, and installing two layover tracks near the existing NJ TRANSIT storage facility west of the station.

The new track configurations and installations will allow for more through trains, which will increase line capacity, and facilitate future extension of the existing station platforms. The second phase includes repairing the existing wall and improving the drainage at track level.

Hudson-Bergen Light Rail Weehawken Tunnel Repairs

This project is part of NJ TRANSIT's Hudson-Bergen Light Rail State of Good Repair and Rehabilitation Program. The project will add lining to the approximately 1,000 feet of the Bergen Line Tunnel that was not lined during the tunnel's initial construction to prevent water leakages. The tunnel and fan room need to be lined and a drainage system installed to prevent ground water from leaking into the tunnel and fan room. Water leakage from the unlined tunnel is causing the rail to prematurely corrode raising potential safety concerns, and water leaking into the fan room is causing electrical equipment to corrode preventing emergency fans from operating reliably.

River LINE Rancocas Creek Bridge Repairs at Delanco

This project is part of the River LINE State of Good Repair and Rehabilitation Program. The project will stabilize the Rancocas Creek Bridge structure to make the bridge safer and bring it to a state of good repair.

Newark Light Rail State of Good Repair and Rehabilitation Program, Phase 2

NJ TRANSIT has developed a multi-phase program to complete improvements throughout the Newark Light Rail system. Components of Phase 2 will be ready for construction within the next two years, including a project to replace track, track structures, drainage, and infrastructure at the entrance of the tunnel to Branch Brook Park Station.

Hoboken Terminal House Power Repair

This project will replace the Hoboken Terminal House Power Supply including switch gear, transformers and associated relays, circuit breakers, power cables, electrical system components, and ancillary equipment. To improve the resiliency of the substation, it will be relocated above design flood elevation to the second floor of the Pullman & Immigrant Building (known as the Immigrant Building), which is adjacent to the existing substation. The Immigrant building will be upgraded to meet structural requirements for the substation and all modifications will comply with historical preservation requirements.

(NJT Board - 07/21/2021)

Henderson Street Substation Repair

This project will replace the Henderson Street Substation in Hoboken, including switch-gear, transformers and all other associated power cable, devices, and controls. The replacement substation will be located at the site of the existing Hoboken Yard Boiler Building, which will be demolished as the boiler has been decommissioned. Backup power and new utility service feeders will be included in the replacement substation. The substation will be located at design flood elevation or above, and include components designed to better withstand contact with saltwater where elements cannot be raised. The new substation will consist of a switchgear, with a new 1200 amp main-double tie-main bus/circuit breaker configuration. Three emergency generators will be included in the new substation.

Bay Head Yard Substation Repair

This project will replace the Bay Head Yard Substation including switch-gear, transformers and all other associated power cable, devices, and controls. The Bay Head substation will be constructed on site. The replacement project will combine the functions of both existing substations into a single new substation. A redundant utility service feeder for the new substation will also be included. The substation will be located at design flood elevation or above, and utilize components designed to better withstand contact with saltwater where elements cannot be raised. The new substation will have two outdoor transformers. The substation transformers will feed a switchgear line-up inside the new substation building, which will power two wayside power unit substations and two building transformers for normal building house power supply. A new standby diesel generator system will be installed to supply standby building house power to replace the emergency generator damaged in Superstorm Sandy.

Rail Operation Center Unit Substation

This project involves the design and construction of a new Rail Operations Center (ROC) Unit substation, which will be installed indoors at a higher elevation in its own dedicated building at the Meadows Maintenance Complex site in Kearny, NJ. The project includes project administration, construction, the purchase of necessary equipment and materials, and any other related costs required to complete the scope.

Hoboken Yard Wayside Power Repair

This project will assess, design, repair, restore, and complete resiliency work for power distribution systems and equipment located in the Hoboken Rail Yard that were damaged by Superstorm Sandy. The work includes new transmission poles, feeder cables and the associated hardware to distribute power from the Henderson Street substation to the Depot Terminal substation and Wayside power.

Hoboken Yard Signal Power Repair

This project will design and construct modifications to the Hoboken Yard Signal Power Distribution system including raising components such as feeder and branch cables, transformers, and sectionalizing switches above design flood elevation. Modifications to existing poles and catenary structures and the installation of new poles will be included to support the additional structural loads from the new aerial cabling and elevated equipment. The project includes design, project administration, construction, the purchase of necessary equipment and materials, and any other related costs required to complete the scope.

Hoboken Facilities Power Distribution Systems Repairs

This project will design and construct repairs and replacements of existing systems, equipment, and facilities due to damage caused by Superstorm Sandy at Hoboken Terminal. Modifications to existing power distribution system within Hoboken Terminal will mitigate or avoid damage to the system in case of future flooding events similar to Superstorm Sandy. The scope of work will include repairs to all submerged components of the power distribution system, raising equipment out of the flood zone or waterproofed designs, repair work needed to connect replacement equipment to system elements that are in a state of good repair, and the design of replacement of equipment for the Inclined Switchboard, with the option to install it in alternate location to provide protection against future flood damage.

3.4 PROGRAMS THAT WILL BE CONCURRENTLY IN DESIGN AND CONSTRUCTION IN FY2022 AND FY2023

Overhead Bridge Replacement Program

NJ TRANSIT maintains over 100 overhead bridges that support roadways and walkways over NJ TRANSIT rail lines throughout the state. This program will identify and prioritize the replacement of the four bridges per year in greatest need of attention. Bridges to be rehabilitated in FY2022 and FY2023 that are currently in design include Franklin Avenue, Danforth Road, and High Street. A study of replacing Front Street Bridge also will be undertaken. This project will ensure future rail infrastructure reliability.

Undergrade Bridge Replacement Program

NJ TRANSIT maintains 617 undergrade bridges, including 537 structures that support operating rail lines over roadways, streams and other features. This program will identify and prioritize the replacement of the four bridges per year in greatest need of attention. Bridges to be rehabilitated in FY2022 and FY2023 that are currently in design include Leland Avenue, Roosevelt Avenue, and Mill Road.

Newark Light Rail Capacity Enhancement Program

This project will modify 11 vehicles from three-section units to five-section units, bringing increased capacity to the Newark Light Rail to meet anticipated demand. To allow for use of these longer units within the Newark Light Rail system, interlockings and switch modifications near Fulton Street and Broad Street first need to be completed. The scope of the program includes modification and extension of the 11 light rail vehicles, a new power substation, and modifications to the existing yard to allow for storage of the longer light rail vehicles.

3.5 ACCESS LINK

Access Link Brokerage Model Study

NJ TRANSIT will perform a comprehensive study to enable Access Link to comply with state legislation S2517. This bill, passed in October of 2020, directs NJ TRANSIT's Access Link to coordinate with local, county-based, and other external transportation service providers and eventually pilot a brokerage model to partner with these providers. This study will establish best practices in technologies, standards, specifications, and operating procedures related to Access Link services and any legislation impacting paratransit service. This effort aims to evaluate Access Link's current operations, identify best practices from brokerage models used by peer transit agencies, and define how a brokerage model can be designed to improve existing Access Link service for New Jersey.

3.6 INFORMATION TECHNOLOGY

IT Rail Improvements

This set of projects will upgrade rail IT infrastructure to improve the customer experience, provide real time information updates, and invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints. Projects include setting up Wi-Fi at Meadowlands Maintenance Complex (MMC), implementing the TrainPlan tool to create improved train schedules, and conducting a pilot project for enabling Wi-Fi and full cellular signals on the Raritan Valley Line.

3.7 FEDERAL PARTNERSHIPS – FUTURE OPPORTUNITIES

In the next two years, NJ TRANSIT is optimistic about the outlook for using federal grant funding and partnerships to progress the Capital Plan. The projects and programs included in the Capital Plan are easily configurable to adapt to shifting federal priorities and successfully take advantage of competitive grant opportunities. In FY2021, NJ TRANSIT was able to secure federal funding to advance some of the Capital Plan projects and programs and will continue to pursue funds in the coming years. Additionally, NJ TRANSIT reached significant milestones relating to the Gateway Program during FY2021. In late 2020, NJ TRANSIT completed a Capital Investment Grant agreement with the US Department of Transportation to advance construction of the Portal Bridge North project. In May 2021, the Federal Railroad Administration (FRA) and Federal Transit Administration (FTA) issued the Record of Decision for the Hudson Tunnel Project, which NJ TRANSIT will support as needed.

Federal funding partners are pursuing partnerships with local agencies to advance infrastructure investments guided by equity, sustainability, and resiliency. At the national level, federal partners have shown a renewed interest in working with transit agencies to combat climate change and aid to disadvantaged communities to help narrow historic inequities, advance environmental justice, and promote affordable access to transportation. To combat climate change, additional funding opportunities for vehicle electrification are being considered. To help disadvantaged communities and narrow inequities, initiatives such as equity-focused planning grants, funding for clean infrastructure research and development, and workforce training are expected to be some of the future opportunities available for transit agencies.

3.8 CAPITAL INVESTMENTS LONG-TERM OUTLOOK

The initial Five-Year Capital Plan established a long list of initiatives that NJ TRANSIT can deliver over the next 20 years. The plan identified large-scale projects that typically require more than five years to complete. Long-term investments would enable NJ TRANSIT to be responsive to future demand by making infrastructure and technology upgrades that can improve customer service, make operations more efficient, and contribute to a more sustainable environment. Investments in zero emission buses, rail analytics to identify the best investments to relieve congestions points, and resilient infrastructure would save money, improve customer and employee safety, enhance air quality, and result in better service.

Long-term capital projects such as collaboration with the Gateway Program and the comprehensive multifaceted investment in Hoboken Terminal will provide New Jersey and the region with the resiliency and enhance connections to the cross-Hudson transportation network. NJ TRANSIT has already taken steps in the current Capital Plan by integrating and planning around these regional projects to position NJ TRANSIT to fully use the additional capacity in the future.

Score more. Stress less.
AmeriHealth
NEW JERSEY
7638
7596

4 UPDATED CAPITAL PLAN PROCESS

4 UPDATED CAPITAL PLAN PROCESS

FIGURE 4-1: CAPITAL PLAN REPORT CADENCE

4.1 THE 2020 CAPITAL PLAN AND THIS UPDATE

This is the first update of the Capital Plan. NJ TRANSIT will release regular updates to inform the public on the progress of the Capital Plan as projects are planned, funded, designed, constructed and delivered. As capital financing is provided on a cashflow basis and a capital plan often expresses funding needs, NJ TRANSIT will regularly update the public and other stakeholders concerning current programming of funds. Regular update of the Capital Plan will address the evolving needs of New Jersey, changes in technology, and other factors that shift the direction in the implementation of the Capital Plan

CAPITAL PLAN REPORT CADENCE

In the middle of the five-year cycle, NJ TRANSIT will prepare a Mid-Plan update that will communicate the capital plan's progress and implementation status; the plan's anticipated state at the end of the five-year cycle; emerging challenges, trends and opportunities that may influence the revision of the capital plan, and how lessons learned will impact the next five-year planning process.

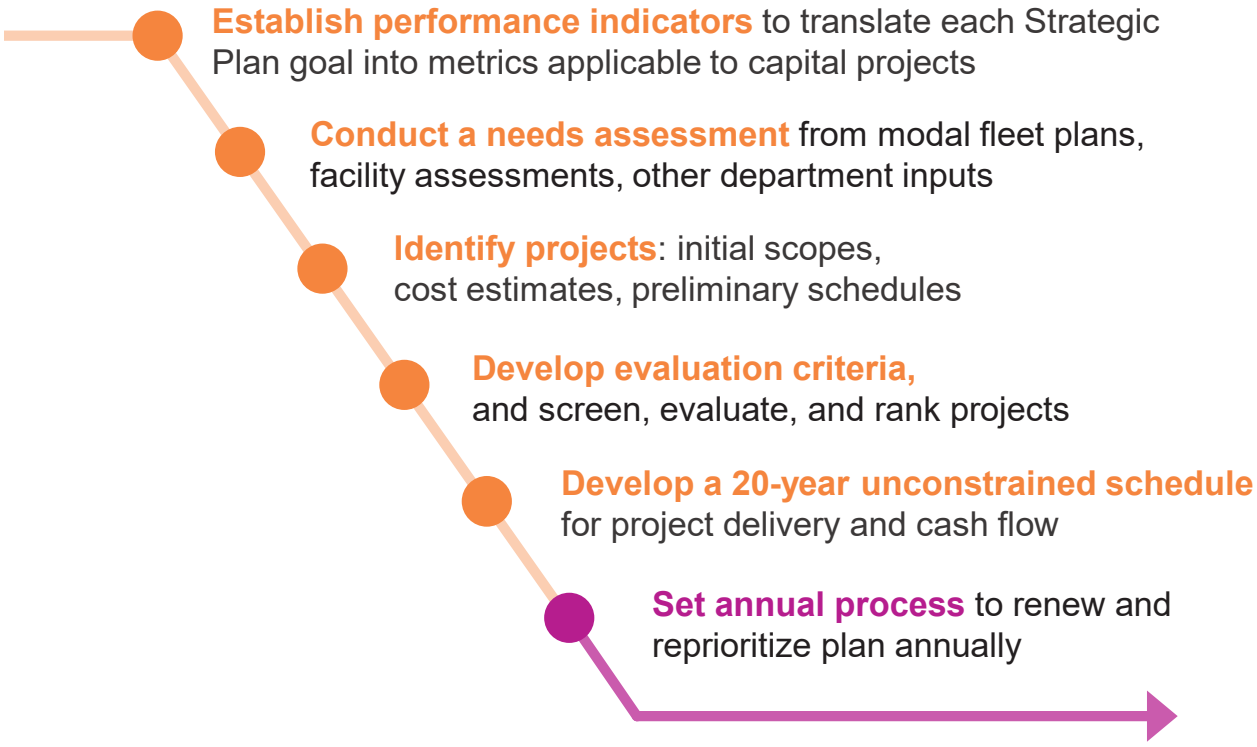
By the end of the five-year cycle, NJ TRANSIT will release a new five-year capital plan that responds to the 20-year project/program needs, and the cycle will repeat itself. Figure 4-1 illustrates the sequence of planned Capital Plan reports.

NJ TRANSIT'S CAPITAL PLANNING PROCESS

Figure 4-2 illustrates the current NJ TRANSIT capital planning process and the key milestones in the Capital Plan's development and implementation. The capital planning process has evolved over the past year, and the previous planning processes are outlined in Appendix D. For this year's update, several of these milestones were revisited as described later in this section The following sections describe:

- How Project Needs are Identified
- How Projects are Evaluated and Prioritized
- Scheduling of Projects over the Years of the Capital Plan
- What the 2021 Capital Plan Update Means for our Customers and New Jersey

FIGURE 4-2: CAPITAL PLANNING PROCESS



4.2 HOW ARE PROJECT NEEDS FIRST IDENTIFIED AND PROJECTS DEFINED?

In developing the 2020 Capital Plan, a set of performance indicators was first formulated to drive the evaluation and implementation of a package of infrastructure projects and programs supporting the NJT2030 strategic goals. The goals and performance indicators, which are described in Section 2 of this update, have not changed.

NJ TRANSIT staff from each department and transit mode review project and program needs identified in the 2020 Capital Plan to meet the NJT2030 goals and deliver on the performance indicators, while considering whether adjustments are required to address the challenges of the pandemic and related economic downturn discussed in Section 2 of this update.

One important source used in developing the list of projects in the Capital Plan is the set of needs identified in the bus, rail and non-revenue vehicle fleet management plans and facility condition assessments, which are regular evaluations of the ability of those assets to support the customer service to which NJ TRANSIT is committed. As described in the 2020 Capital Plan, asset condition assessment and management inform investment decisions as part of the NJ TRANSIT State of Good Repair Program to identify, track, and quickly respond to deteriorating conditions of assets wherever they occur. This approach transitions away from addressing infrastructure needs on a reactive, ad hoc basis to a more comprehensive project identification and prioritization process.

A major driver in the latest fleet plans is the need to meet New Jersey State-legislated mandates for purchase of zero emission vehicles and related charging infrastructure, signed by Governor Murphy in January 2020. The legislation (S2252) establishes initial targets: a) by December 31, 2024, at least 10 percent of NJ TRANSIT's new bus purchases must be zero emission buses, and the percentage of zero emission bus purchases must increase to 50 percent by December 31, 2026, and b) by December 31, 2025, at least 25 percent of State-owned non-emergency light duty vehicles must be zero emission. Both targets increase to 100 percent of both fleets by later years specified in the legislation. This Capital Plan update provides detail on how NJ TRANSIT is advancing projects to meet these targets, such as the Bus Garage Modernization Program and the Northern Bus Garage projects.

4.3 HOW ARE PROJECTS EVALUATED AND PRIORITIZED?

In the initial plan, each identified project and program was evaluated using a set of criteria tied directly to the five performance indicators and NJT2030 Strategic Plan goals, and the results were summarized on project sheets that provide information for each project. This update represents the reanalysis and review of priorities and programs over the next 5 and 20 years. Concurrent with the development of the Capital Plan last year, NJ TRANSIT also developed a centralized and streamlined prioritization process for screening, evaluating and prioritizing projects before they are assigned to one of the potential development/ delivery channels: Strategic Planning projects, Major Projects, Minor Projects (that often can be performed by in-house staff), Job Order Contract projects (smaller projects that can be delivered quickly under existing/ongoing contracts), and Projects to be Delivered by Alternative Delivery Methods (such as Design-Build).

The newly assembled Capital Advisory Team (CAT) will meet quarterly throughout the year to re-examine priorities and available funding and keep projects moving forward. Each project is evaluated through the lens of the five goals of the NJT2030 Strategic Plan. Using this lens will enable each project to support NJ TRANSIT's strategic goals. The evaluation is also informed by the most up-to-date information available on the impacts of the pandemic on transit ridership and the economy, as well as consideration of possible scenarios for the recovery from the past year.

EVALUATION CRITERIA

Thirteen evaluation criteria were used to evaluate each project in 2020 and identify the blend of desired impacts and benefits expected from each project. The evaluation criteria focus and expand on the five performance indicators, add a more granular level of detail, and recognize how different projects can contribute to the strategic goals in different ways. The evaluation criteria were reconsidered, and some were more clearly defined or expanded to reflect the themes of this year's update.

Together, the evaluation criteria used to evaluate the projects in the Capital Plan capture the breadth of NJ TRANSIT's commitment to investing in a more resilient, equitable, and sustainable future. The United Nations Sustainable Development Goals call for achieving sustainable development in three dimensions – economic, social and environmental – in a balanced and integrated manner. Sustainable transportation achieves better integration of the economy while respecting the environment and improving social equity, health, resilience and productivity. The NJ TRANSIT Capital Plan considers the sustainability of investment in each capital project from all these perspectives.

The evaluation criteria are:

- **State of Good Repair (SOGR):** SOGR is vital to stabilize and maintain the system in order to ensure asset performance and support NJ TRANSIT's committed level of transit service. Significant investment is required to restore the value of the capital assets and bring them back to a SOGR to support the safety, customer experience, resilience, and sustainability goals of NJT2030. Projects are scored under this criterion based on whether they restore or replace facilities, infrastructure and vehicles to meet current industry standards and assure customer service.
- **Equity, Inclusion & Accessibility:** The mobility provided by public transit plays a critical role in creating a more inclusive society, improving people's lives regardless of race, economic standing or physical ability. Households in low-income areas typically own fewer vehicles and have longer commutes, resulting in higher transportation costs, especially in relation to income. Investments that are better able to support the needs of people for safe, affordable and reliable access to education, employment, food, healthcare, and social and leisure activities benefit disadvantaged communities, can improve residents' health and social mobility, and create long-term economic opportunities. Projects are scored based on whether they allow persons with limited access to automobiles, bicyclists/pedestrians, low-income populations, speakers of different languages and people with disabilities to use the system with ease and convenience, as well as projects that support workforce development opportunities.
- **Environmental Sustainability/Air Quality**: Capital investments that improve air quality by promoting use of cleaner and renewable energy or furthering the use of public transit over low-occupancy automobile use and/or reduce other adverse environmental impacts, further environmental sustainability. Transportation is the greatest contributor to energy-related global greenhouse gas emissions. Consistent with the Paris Agreement on climate change, projects are scored under this criterion based on the extent to which they reduce greenhouse gas and particulate emissions, promote cleaner sources of energy and reduce other environmental impacts.
- **Ridership/Capacity:** If a project has a significant impact on either increasing ridership through an increase in line capacity or vehicle capacity, it would score high under this criterion. All projects are scored based on the extent of direct/indirect impacts they might have on ridership/capacity.
- **Service Reliability:** Transit reliability is almost always measured by the system's on-time performance. Projects are evaluated as to their impact on increasing the probability that a vehicle can arrive on-time at designated stations/stops and/or enable transfer to other modes of transport where applicable; the scoring considers improvement in on-time performance as a result of reduction in the causes of possible delays and introduction of backup facilities to provide redundant service capacity to be readily available when necessary.
- **Business Performance/Financial Sustainability:** Robust business performance is critical for NJ TRANSIT to be able to remain resilient and improve its financial sustainability. In order to fulfill its mission and advance the vision of being an innovative, world-class public transportation provider that meets the travel needs of every customer, NJ TRANSIT will need to fund all O&M and capital costs as needed on a

continuous basis that assures the reliability and performance of its vehicles and infrastructure to support service. This can be achieved by increasing revenue and/or reducing O&M costs through better asset management, among other ways, while remaining committed to improved access. Projects under this criterion have been scored based on the impact they have on improving business performance.

- **Service Quality/Frequency:** This criterion focuses on investments that increase the potential of providing more frequent, convenient, and attractive service to the public. Projects are scored under this criterion based on their impact on service frequency.
- **Comfort:** One of the most important aspects of the customer experience is the passenger's comfort while using NJ TRANSIT services. This means better facilities in waiting areas, cleaner vehicles, comfortable seats, and much more. Projects are scored under this criterion based on their ability to improve passenger comfort.
- **Regional Effect/Socioeconomic Sustainability:** Projects are scored under this criterion based on their potential to provide or strengthen long-term social and economic benefits for the communities served by NJ TRANSIT. Projects that provide benefits for the greatest number of people, including projects with beneficial effects on the system network as a whole, are scored higher.
- **Intermodal Integration:** One of the most important aspects of building a transit-friendly community is intermodal integration, which makes the transfer between two or more modes during a trip as easy and seamless as possible. If a person can take the bus from within a five-minute walking distance of their place of residence to a commuter rail station to reach their place of work, it is more helpful than if that person takes a car to the commuter rail station. The extent to which projects facilitate improved integration among different modes of transportation, including bikes, light rail, commuter rail, bus, pedestrians, and even cars, is used to score projects under this criterion.
- **Health and Safety:** It is critical for NJ TRANSIT to provide safe and healthy conditions for its riders and employees. Projects are ranked based on whether they address a safety concern by reducing or eliminating the potential of accidental harm, promote cleaner vehicles and stations, improve ventilation, or improve related conditions under this criterion.
- **Resiliency:** Changing climate, extreme weather events, such as storms, heat waves, flooding and sea-level rise, and other, human induced acute shocks to NJ TRANSIT's operating environment impact the ability of the transit system to continue providing service, in turn affecting security, health, and the economy. Capital projects must build more resiliently to address such threats. Resiliency is also an area that calls for technological innovation, including clean energy technologies to combat climate change and meet New Jersey's legislatively-mandated targets for NJ TRANSIT's bus and non-revenue vehicle fleets. Projects are scored based on how resilient they would make the NJ TRANSIT system and the communities that NJ TRANSIT serves and their contribution to meeting state targets.

TABLE 4-1: NJT2030 STRATEGIC PLAN GOALS AND EVALUATION CRITERIA

STRATEGIC PLAN GOAL	EVALUATION CRITERIA	
Ensure the reliability, and continued safety of our transit system	» Reliability » Environmental Sustainability/Air Quality » Service Quality/Frequency	» Resiliency » Health & Safety » SOGR
Deliver a high-quality experience for all our customers, with their entire journey in mind	» Ridership/Capacity » Reliability » Comfort	» Health & Safety » Equity, Inclusion & Accessibility
Power a stronger and fairer New Jersey for all communities in the region	» Intermodal Integration » Equity, Inclusion & Accessibility	» Regional Impact/Socioeconomic Sustainability » Financial Sustainability/Business Performance
Promote a more sustainable future for our planet	» Environmental Sustainability/Air Quality » Regional Impact/Socioeconomic Sustainability	» Resiliency » Ridership/Capacity
Build an accountable, innovative, and inclusive organization that delivers for New Jersey	» Equity, Inclusion & Accessibility	» Financial Sustainability/Business Performance

» **Project Readiness:** The state of readiness of the projects matters most when deciding which projects to implement first. Projects that are only in the preliminary planning stage, regardless of their importance, may take much longer to execute than a project that is ready for procurement or has already benefitted from investment via State or Federal sources. Under this criterion, projects that are further along in their state of readiness and have already overcome such early project implementation risks as uncertainty about regulatory approach or funding/financing viability would rank higher. For instance, a project that is midway in its implementation would be ranked higher than a project that only has preliminary designs ready for review and approval.

In 2021, the relative weights of each criterion in the prioritization process also were reconsidered to reflect the themes of this year's update. Resiliency was given greater weight, and Equity, Inclusion and Accessibility were included among the criteria given the highest weight in the prioritization of projects this year.

Some criteria reflect more than one of the five Strategic Plan goals, as illustrated by Table 4-1.

Use of the evaluation criteria allowed NJ TRANSIT to evaluate the projects relative to each other, but the Capital Plan is based not only on the specific merits of individual projects and programs. It is also based on the overall needs of the system, both existing and expanded; the value for the dollar invested in each project; how quickly projects can be delivered; and how the projects work together to produce the best value for the transit system, customers, and the state as a whole.

4.4 PROGRAMMING THE PROJECTS OVER TIME

The Capital Plan program is a comprehensive list of initiatives that NJ TRANSIT can deliver over the next 20 years, even if the project does not have a dedicated source of funding identified. The Capital Plan programs work by expected expenditures per year, with the understanding that it is not possible to design and construct all projects at once. Projects already in development that can be enacted quickly and have demonstrated value in improving the performance and reliability of the transit system are programmed into the plan. As funding is identified, the Capital Planning team plans for the projects with regular reviews of funding and expenditures included in the Capital Plan. Updated project and program cash flows are included in Appendix A.

The update is intended to maintain the continuity and momentum of the adopted Five-Year Capital Plan. As noted in Section 2 of this update, consideration of the timing of each project within the Capital Plan also took into account the issues and topics in the past year affecting the transit system and its priorities, including investments that improve the resiliency and sustainability of the transit system, facilitate economic revitalization and employment opportunities, address equity by meeting the needs of underserved communities and communities that have born more than their fair share of economic, health and environmental impacts, and make transit safer and healthier for customers.

4.5 IMPROVING THE CAPITAL PLANNING PROCESS

NJ TRANSIT's Capital Planning team intends to further improve and refine the capital planning process, including the analysis necessary to inform and support efforts of project development and prioritization. Such improvements are listed in this section

PROJECT INITIATION PROCESS

NJ TRANSIT recently developed a project initiation process to ensure that potential new projects are scoped efficiently and then tracked responsibly to address all potential capital investments. Previously, NJ TRANSIT did not have a formal project initiation process or a way of tracking potential project requests, statuses, or in some cases, unnecessary duplication of work efforts. The project initiation process, available to various stakeholders within NJ TRANSIT, will include several steps and reviews to create a series of project control "checks and balances." Formal reviews by the Chief Engineer and the Capital Planning team will ensure strategic alignment within the Five-Year Capital Plan along the processes of scope development, cost estimation and project scheduling. A committee of agency representatives, known as the Capital Advisory Team (CAT) will review all requests and follow a streamlined and consistent project development process. Using a newly procured budgeting and management software program, these new methods will increase communication and transparency and enhance our ability to track diligently all potential projects within the agency.

RAIL INFRASTRUCTURE PERFORMANCE MODELING

As a key driver to inform the impact, benefit-cost, and priority of major rail infrastructure projects, capital planning intends to launch a rail performance modeling activity. This activity will focus on evaluating the current performance of the agency's rail network, developing different scenarios for the performance needs of NJ TRANSIT's rail lines in the future, and creating a model that simulates rail movements and existing and future infrastructure performance throughout the NJ TRANSIT system. NJ TRANSIT will use this capability to vet existing envisioned projects, quantify the project's impact to inform the prioritization score, inform design requirements, identify opportunities to improve infrastructure performance, determine the correct sequence of implementation based on interdependencies and identify new projects to prepare the agency for the future.

BUSINESS CASE REPORTING

For major projects and programs, NJ TRANSIT will begin to adopt the practice of developing business case reports that identify the project's ability to achieve key objectives and goals of the agency and measure the potential impact of the project. These reports will help inform NJ TRANSIT and its prioritization process and will be broken into four major categories: a capital planning case to cover agency goals and to develop quantitative and qualitative capital performance benchmarks, an economic case to capture the economic value to stakeholders, a financial case to understand the financial planning and impacts of the project, and a constructability/ease of adoption case to understand the project's constructability challenges and plan how the project can be transitioned to operations upon completion. The capital planning case will evaluate and determine the value of a project against the goals; how the investment can address an identified need, problem or opportunity; its benefits and its feasibility. It will result in determination of a preferred option for inclusion in the capital plan, preceding further refinement and design.

ZERO EMISSION BUS TRANSITION & INVESTMENT PLAN

This plan will be used to further refine the capital investment plans and establish milestones to aid successful implementation of the agency's infrastructure, fleet, and technology investments. The transition to a zero emission bus fleet is a unique challenge for the agency and will likely define the future of NJ TRANSIT's surface operations. NJ TRANSIT is in the process of developing a transition and investment plan to develop the specifications and best practices for zero emission bus vehicles, equipment and technology. The plan will analyze the impacts of future fleet demand, fleet transition, and bus garage design and determine technology needs, operation and maintenance needs, and implementation challenges.

ENTERPRISE ASSET MANAGEMENT (EAM)

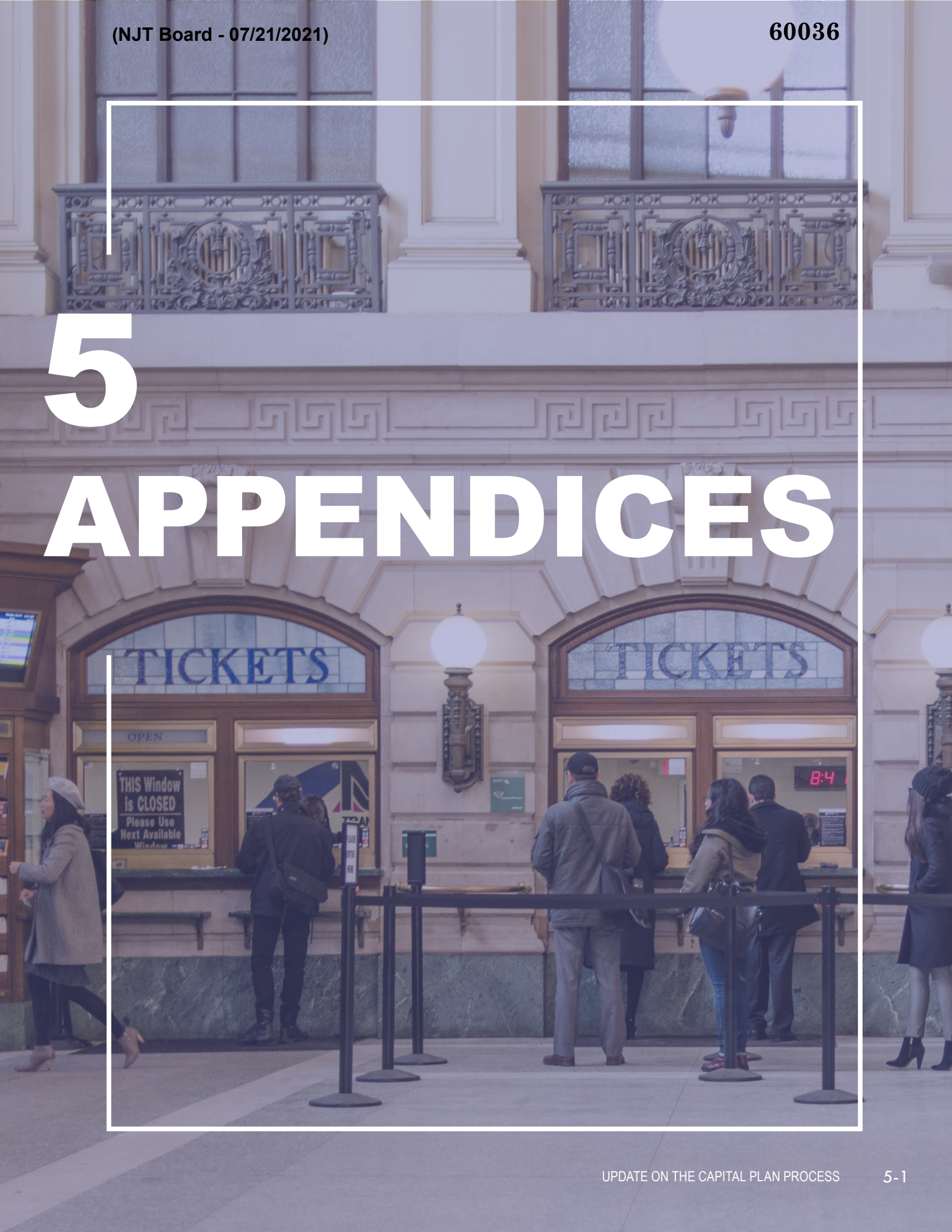
NJ TRANSIT is establishing an EAM program and implementing the agency's Transit Asset Management Plan (TAMP), to develop a centralized asset management system and achieve agency-wide strategic alignment to efficiently manage the agency's asset portfolio. A centralized asset inventory database, where assets and components are identified based on their relationship and function, is being created, along with setting the appropriate condition and performance rating system for all asset classes. The goal of the EAM system is to enable better management of assets and develop an improved understanding of asset performance against strategic goals. Understanding the gaps in asset performance will inform the process of identifying capital needs and projects early in the capital planning process.

4.6 WHAT THE 2021 CAPITAL PLAN UPDATE MEANS FOR NJ TRANSIT CUSTOMERS AND NEW JERSEY

The Capital Plan represents NJ TRANSIT's continued focus, review and investment in new and improved facilities, vehicles, and infrastructure to serve residents and businesses. Such investments create thousands of construction jobs that will reinvigorate communities and build back the system after over a decade of neglect. Across the State, NJ TRANSIT is responding to challenges and seizing opportunities to build a more sustainable and equitable future by investing in economic opportunity and community development, powering vehicles and infrastructure using clean technologies, increasing the efficiency and safety of the transit system, and assuring the flexibility to deploy vehicles that meet the mobility and access needs of all customers.

AVONDALE PARK & RIDE

5 APPENDICES



5 APPENDICES

Each of the appendices included in this first update to the Capital Plan are described below. The appendices compliment the information presented in this report and provide more detailed updates on a project's progress, current phase, estimated costs, and timeline.

APPENDIX A – CAPITAL PLAN FINANCIAL SHEETS

Appendix A contains four tables representing all pertinent financial information for the FY2022 Five-Year Capital Plan Update. These tables were included in the original version of the Capital Plan and have been updated to reflect actual spending and funding estimates.

Appendix A Table 1: Capital Plan Financial Summary

This financial table is the cumulative summary of Tables 2, 3 and 4. Numbers designated in green represent projects that have already been funded fully or partially with existing or expected resources. Numbers designated in gray represent projects or portions of projects that are not funded at this time. Those projects in gray, although without identified funding, represent improvements and initiatives that NJ TRANSIT feels are necessary and critical for efficient and effective customer service.

Appendix A Table 2: Capital Plan: Major Projects and Programs Unconstrained Estimated Cash-flow Sheet

This table features NJ TRANSIT's major capital projects, programs, and initiatives, highlighted by mode and asset category. Most of these items are timely with benefits expected in the near or long-term. Each of these projects or programs is supported by a one-to-four-page description that speaks not only to the scope of the improvements but also details the total project cost with a description of the project's value to customers, the value to the State, and a specific radar chart that shows how well the project performs under a project evaluation process. Likewise, each item lists the total of the previous years' actual cash flow expenditure, a cash flow actual for FY2021 and a projection of cash flow expenditures over the next four years from FY2022 until FY2025. If those expenditures are funded, they are shown in green typeset and if they are not funded, they are shown in gray typeset.

Additionally, each annual cashflow expenditure has a background color that shows the item's specific phase of development, design or construction associated with that year's expenditure. For example, a project in a project development phase will be shown with a beige background, a land acquisition/preliminary engineering phase in yellow, a final design phase in green, a construction phase in blue and in a few cases, a project will be shown in purple for a design-build phase.

Appendix A Table 3: Capital Plan: Rehabilitation Projects and Programs Unconstrained Estimated Cash-flow Sheet

Table 3 represents a relatively small group of investments, that are performed primarily by NJ TRANSIT in-house forces. These investments include projects to: fix and replace fleet and maintenance facilities; rehabilitate and paint undergrade and overhead bridges; renew track and roadbeds; rehabilitate power substations and distribution systems; and inspect bridge systems. Work already funded with existing funds is shown in green. Other investments without identified funding, requested by the operating departments, are designated in gray.

Appendix A Table 4: Capital Plan: Other Existing NJ TRANSIT Program Items Estimated Cash-flow Sheet

Table 4 represents many of the projects that are already well underway at NJ TRANSIT. Specific priority projects are called out in this table, specifically those projects funded by the Sandy resiliency program. Also residing in this Table 4 are the fixed expenses in the Capital Plan, specifically funds dedicated to capital maintenance, debt service, local programs, and Amtrak PRIIA Lease Payments.

APPENDIX B – UPDATED PROJECT SHEETS

Appendix B includes all project sheets that have been updated since the original publication of the Capital Plan.

APPENDIX C – CAPITAL PLAN NARRATIVE UPDATE

Appendix C features a written narrative describing the Capital Plan and is meant to supplement the previously published Capital Plan Executive Summary.

4007
4007
TRANSIT

APPENDIX A

Capital Plan Financial Sheets

Appendix A: Unconstrained Financial Summary

Table 1 - Capital Plan Financial Summary

Appendix A Table 1: Capital Plan Financial Summary (Update)

($ in Millions)

CAPITAL PLAN FY2021-2025	FY2021	FY2022	FY2023	FY2024	FY2025	5 YEAR TOTAL
Funding Available for Capital Projects *						
Major Projects and Programs Table 2	461.60	754.94	1,242.16	1,475.82	1,047.45	4,981.98
Rehabilitation Projects and Programs Table 3	62.00	68.24	69.01	71.41	71.41	342.08
Other Existing NJ TRANSIT Program Items Table 4	858.82	1,103.88	1,042.91	1,000.41	925.57	4,931.59
TOTAL EXISTING FUNDING	1,382.43	1,927.07	2,354.08	2,547.64	2,044.43	10,255.64
Funding Needs **						
Major Projects and Programs Table 2	-	313.09	785.56	1,127.00	1,691.75	3,917.40
Rehabilitation Projects and Programs Table 3	-	287.32	231.72	198.04	208.62	925.70
TOTAL FUNDING NEED	-	600.41	1,017.28	1,325.04	1,900.37	4,843.10
TOTAL CAPITAL PLAN	1,382.43	2,527.48	3,371.36	3,872.68	3,944.80	15,098.74

Appendix A: Unconstrained Financial Summary

Table 2 - Capital Plan: Major Projects and Programs Unconstrained Estimated Cash-flow Sheet

Appendix A Table 2: Capital Plan Major Projects and Programs, Progress and Unconstrained Estimated Cash Flow

($ in Millions)

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	BUS GARAGES		2,680.01	$1,017.51	$994.50	$668.00						
		Expansion										
		Northern Bus Garage *Excludes Property Acquisition Costs	536.00	536.00	0.00	0.00						
Initiated		Existing Funding *Includes Some Strategic Land Purchase	73.42	73.42	0.00	0.00		44.86	28.56			
Awaiting Funding		Requested Funding	462.58	462.58	0.00	0.00				56.58	200.00	206.00
		Second Northern Bus Garage	392.00	3.00	111.00	278.00						
Awaiting Funding		Requested Funding	392.00	3.00	111.00	278.00					2.00	1.00
		Modernization										
		Bus Garage Modernization Program	1,143.52	471.51	574.00	98.00						
Ongoing		Existing Funding - Wayne Early Action Rehabilitation	28.52	28.51	0.00	0.00	0.01	0.01	0.85	3.80	16.50	7.35
Awaiting Funding		Requested Funding - Phase I	266.00	266.00	0.00	0.00			14.00	84.00	84.00	84.00
Awaiting Funding		Requested Funding - Phase II	537.00	177.00	360.00	0.00			8.00	14.00	75.00	80.00
Awaiting Funding		Requested Funding - Phase III	312.00	0.00	214.00	98.00						
		Garage Replacement										
		Bus Garage Replacement Program	608.50	7.00	309.50	292.00						
Awaiting Funding		Requested Funding	608.50	7.00	309.50	292.00				3.00	2.00	2.00

	BUS FLEET		6,571.09	$1,237.12	$1,243.40	$3,625.00						
		Zero Emissions Buses										
		Bus Fleet Electrification Implementation Program	310.50	4.50	306.00	0.00						
Awaiting Funding		Requested Funding	310.50	4.50	306.00	0.00			0.50	0.50	3.00	0.50
		Electric Bus Fleet Early Deployment	38.88	38.88	0.00	0.00						
Initiated		Existing Funding - Infrastructure/Charging Stations Newton	4.94	4.94	0.00	0.00		0.24	2.35	2.35		
Initiated		Existing Funding - Newton Bus Purchases	8.84	8.84	0.00	0.00		0.76	4.50	3.58		
		*Funding awarded but not obligated - Hilton Bus Purchase FY20 Award	10.10	10.10	0.00	0.00					10.10	
		Requested Funding - Hilton Infrastructure	15.00	15.00	0.00	0.00				5.00	10.00	
		Zero Emission Bus System Design and Investment Planning Study	9.50	9.10	0.40	0.00						
Initiated		New Requested Funding	9.50	9.10	0.40	0.00			0.30	3.40	3.50	1.90
		Fleet Replacement										
		Bus Fleet Replacement - Cruiser Buses	799.58	334.55	0.00	0.00						
Ongoing		Existing Funding: Cruiser Buses - 1222	668.33	203.30	0.00	0.00	465.03	99.80	99.50	4.00		
Initiated		Existing Funding: Cruiser Buses - 172	131.25	131.25	0.00	0.00			10.00	121.25		
		Fleet and/or Capacity Enhancement										
		Bus Fleet Replacement - NABI	846.05	$423.75	$422.30	$0.00						
		Existing Funding - 1299	846.05	423.75	422.30	0.00			1.30	110.45	156.00	156.00
		Bus Fleet Replacement - Articulated Buses	91.32	$90.78	$0.00	$0.00						
Ongoing		Existing Funding (85 + 25)	91.32	90.78	0.00	0.00	0.54	84.41	6.37			
		Bus Fleet Replacement Program	4,475.25	$335.55	$514.70	$3,625.00						
Initiated		Existing Funding: Future Purchases	281.00	156.00	100.00	25.00				106.00	25.00	25.00
Awaiting Funding		Requested Funding	4,194.25	179.55	414.70	3600.00				23.55	43.00	113.00

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	BUS INFRASTRUCTURE		1,295.57	$91.07	$986.01	$218.00						
		Public Spaces & Stations										
		Walter Rand Transportation Center Redevelopment	274.97	4.44	270.51	0.00						
Ongoing		Existing Funding	1.50	1.48	0.00	0.00	0.02	0.06	1.42			
Awaiting Funding		Requested Funding	273.46	2.95	270.51	0.00			2.45	0.50		
Initiated		North Bergen Park & Ride Parking Garage	124.70	5.20	11.50	108.00						
		Existing Funding Site Preparation	4.20	4.20	0.00	0.00		4.20	0.001			
Awaiting Funding		Requested Funding	120.50	1.00	11.50	108.00						1.00
Awaiting Funding		Old Bridge Park & Ride Enhancement	21.50	3.00	18.50	0.00						
		Requested Funding	21.50	3.00	18.50	0.00				0.50	0.50	2.00
Awaiting Funding		Park & Ride Bus Shelter Modernization Program	75.00	22.00	53.00	0.00						
		Requested Funding	75.00	22.00	53.00	0.00			1.00	4.00	1.00	16.00
Awaiting Funding		Local Bus Shelter Modernization Program	16.50	1.50	15.00	0.00						
		Requested Funding	16.50	1.50	15.00	0.00				0.50	0.50	0.50
Ongoing		Passaic Bus Terminal Redevelopment	5.58	5.11	0.00	0.00						
		Existing Funding	5.58	5.11	0.00	0.00	0.47	0.10	0.55	4.00	0.46	
		Rapid Surface Transit System										
		New Brunswick Rapid Surface Transit Study	10.00	10.00	0.00	0.00						
Awaiting Funding		Requested Funding	10.00	10.00	0.00	0.00			3.00	2.00	2.00	3.00
Awaiting Funding		Rapid Surface Transit System Development & Design Program	538.00	22.00	406.00	110.00						
		Requested Funding	538.00	22.00	406.00	110.00			2.00	2.00	5.00	13.00
Awaiting Funding		Bergen County Bus Rapid Transit Network	168.00	14.00	154.00	0.00						
		Requested Funding	168.00	14.00	154.00	0.00			2.00	2.00	5.00	5.00
Initiated		Princeton Transitway	61.32	3.82	57.50	0.00						
		Existing Funding	0.32	0.32	0.00	0.00		0.11	0.21			
Awaiting Funding		Requested Funding	61.00	3.50	57.50	0.00					1.00	2.50

	ACCESS LINK		111.36	$45.12	$13.00	$53.00						
		Fleet										
		Access Link Fleet Modernization and Expansion	49.86	42.62	7.00	0.00						
Ongoing		Existing Funding	49.86	42.62	7.00	0.00	0.24	0.26	13.37	19.06	9.30	0.63
		Technology										
		Access Link Electric Vehicle (EV) Pilot Program	2.50	2.50	0.00	0.00						
Awaiting Funding		Requested Funding	2.50	2.50	0.00	0.00			0.50	2.00		
		Facilities										
		New Access Link Garage	59.00	0.00	6.00	53.00						
Awaiting Funding		Requested Funding	59.00	0.00	6.00	53.00						

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	LIGHT RAIL		1,916.07	$181.91	$989.49	$723.00						
		River LINE										
		River LINE Right-of-Way Flooding	1.00	1.00	0.00	0.00						
Awaiting Funding		Requested Funding	1.00	1.00	0.00	0.00			0.50	0.50		
		River LINE Fleet Overhaul - Repower	31.00	25.18	3.19	0.00						
Ongoing		Existing Funding	31.00	25.18	3.19	0.00	2.64	1.53	4.20	6.50	6.50	6.44
		River LINE Fleet Overhaul - Fleet Replacement	70.00	0.00	70.00	0.00						
Awaiting Funding		Requested Funding - for other elements	70.00	0.00	70.00	0.00						
		Newark Light Rail										
		Newark Light Rail (NLR) Capacity Enhancement	32.50	32.50	0.00	0.00						
Awaiting Funding		Requested Funding	32.50	32.50	0.00	0.00			0.50	2.00	15.00	15.00
		Newark Light Rail (NLR) Station Modernization & Access Program	130.16	47.75	81.00	0.00						
Ongoing		Existing Funding	3.98	2.57	0.00	0.00	1.41	0.35	2.22			
Awaiting Funding		Requested Funding	126.18	45.18	81.00	0.00				6.18	2.00	37.00
		Hudson-Bergen Light Rail										
		Hudson-Bergen Light Rail (HBLR) Hoboken WYE Bypass	89.00	8.00	81.00	0.00						
Awaiting Funding		Requested Funding	89.00	8.00	81.00	0.00				2.00	3.00	3.00
		Hudson-Bergen Light Rail (HBLR) Northern Branch Corridor	1,178.00	0.00	487.99	690.00						
Ongoing		Existing Funding	98.94	0.00	98.93	0.00	0.01	0.00				
Awaiting Funding		Requested Funding	1,079.06	0.00	389.06	690.00						
		Hudson-Bergen Light Rail (HBLR) Route 440 Extension	248.40	64.49	166.31	0.00						
Ongoing		Existing Funding	27.99	10.39	0.00	0.00	17.61	3.11	7.28			
Awaiting Funding		Requested Funding	220.41	54.10	166.31	0.00					3.10	51.00
		Paterson Avenue Grade Crossing Elimination	136.00	3.00	100.00	33.00						
Awaiting Funding		Requested Funding	136.00	3.00	100.00	33.00				1.00	1.00	1.00
	RAIL FLEET		4,709.68	$2,086.67	$1,945.25	$677.76						
		Fleet Replacement										
		Rail Fleet Replacement - Phase I - Overhaul	1,597.35	846.51	511.85	238.99						
Initiated		GP -40 Diesel Locomotive Overhaul (7) Proposed	23.50	23.50	0.00	0.00			10.21	13.29		
Initiated		PL42 Diesel Locomotive Overhaul (10)	41.80	41.80	0.00	0.00			12.62	16.56	12.62	
Awaiting Funding		Requested Funding	1,532.05	781.21	511.85	238.99			124.00	197.74	237.27	222.21
		Fleet and/or Capacity Enhancement										
		Rail Fleet Replacement - Phase II - New Car Purchases	3,034.32	1198.16	1397.39	438.77						
Initiated		Existing Funding - Multilevel IIIs	574.74	495.61	79.12	0.00		68.88	32.44	50.06	148.76	195.48
Initiated		Existing Funding - Dual Power ALP 45 locamotives (17) (Includes EDA funding)	123.85	123.85	0.00	0.00		1.05	111.76	1.75	8.85	0.44
Initiated		Existing Funding - Dual Locos (8)	82.14	82.14	0.00	0.00		22.17	19.83	36.63	0.30	3.22
Awaiting Funding		Requested Funding - remaining after allocating the Rolling Stock Options	2,253.60	496.55	1318.27	438.77			53.2	77.2	128.6	237.4
		Overhaul/State of Good Repair										
		Train Battery Pilot	46.00	10.00	36.00	0.00						
Awaiting Funding		Requested Funding	46.00	10.00	36.00	0.00			0.50		8.50	1.00
		Machine Vision Implementation Program	32.00	32.00	0.00	0.00						
Awaiting Funding		Requested Funding	32.00	32.00	0.00	0.00				2.00	15.00	15.00

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
			10,267.97	$1,764.37	$4,662.80	$3,700.49						
		Bridges										
		Raritan River Bridge Replacement	595.00	495.80	62.20	0.00						
Ongoing		Existing Funding	595.00	495.80	62.20	0.00	37.00	56.31	103.10	117.20	119.60	99.59
		Overhead Bridge Replacement Program	845.50	45.50	200.00	600.00						
Awaiting Funding		Requested Funding	845.50	45.50	200.00	600.00			0.50	1.00	4.00	40.00
		Newark Draw Bridge Replacement & Capacity Enhancement	676.00	61.00	447.00	168.00						
Initiated		Existing Funding	6.00	6.00	0.00	0.00			2.00	4.00		
Awaiting Funding		Requested Funding	670.00	55.00	447.00	168.00			3.00	3.00	30.00	19.00
		Undergrade Bridge Replacement Program	1,903.00	103.00	450.00	1350.00						
Awaiting Funding		Requested Funding	1,903.00	103.00	450.00	1350.00			2.00	2.00	9.00	90.00
		South Laurel Ave Bridge Replacement & Clearance Improvement	46.50	4.50	42.00	0.00						
Awaiting Funding		Requested Funding	46.50	4.50	42.00	0.00				0.50	2.00	2.00
		Brielle Draw Bridge Replacement & Capacity	204.00	9.00	195.00	0.00						
Initiated		Existing Funding	4.00	4.00	0.00	0.00			1.00	3.00		
Awaiting Funding		Requested Funding	200.00	5.00	195.00	0.00						5.00
		HX Draw Bridge Replacement	269.00	0.00	22.00	247.00						
Awaiting Funding		Requested Funding	269.00	0.00	22.00	247.00						
		Upper Hack Lift Bridge Capacity Enhancement	267.00	4.00	94.00	169.00						
Awaiting Funding		Requested Funding	267.00	4.00	94.00	169.00					2.00	2.00
		Shark River Draw Bridge Replacement	170.00	0.00	2.00	168.00						
Awaiting Funding		Requested Funding	170.00	0.00	2.00	168.00						
		West Front Street Bridge Replacement Study	2.00	0.00	2.00	0.00						
Awaiting Funding		Requested Funding	2.00	0.00	2.00	0.00						
		Morgan Draw Bridge Replacement	236.00	0.00	17.00	219.00						
Awaiting Funding		Requested Funding	236.00	0.00	17.00	219.00						
		Signals & Interlockings										
		WC interlocking Reconfiguration	13.00	8.00	5.00	0.00						
Awaiting Funding		Requested Funding	13.00	8.00	5.00	0.00			0.50	1.00	0.50	6.00
		West Summit Interlocking	96.50	58.18	38.21	0.00						
Initiated		Phase I: Interlocking Relocation	52.00	52.00	0.00	0.00			1.00	29.00	22.00	
Ongoing		Phase II - Wall Repair & Drainage Design	3.09	2.98	0.00	0.00	0.11	0.08	1.39	1.00	0.51	
Initiated		Phase II - Wall Repair & Drainage Construction	16.00	3.20	12.80	0.00						3.20
Awaiting Funding		Requested Funding	25.41	0.00	25.41	0.00						
		Millburn Interlocking Reconfiguration	111.00	2.00	41.00	68.00						
Awaiting Funding		Requested Funding	111.00	2.00	41.00	68.00					1.00	1.00
		Dover Interlocking Reconfiguration Study	1.00	1.00	0.00	0.00						
Awaiting Funding	RAIL INFRASTRUCTURE	Requested Funding	1.00	1.00	0.00	0.00			0.50	0.50		
		New Interlocking between Glen and Cedar Interlockings	13.50	1.00	7.50	5.00						
Awaiting Funding		Requested Funding	13.50	1.00	7.50	5.00					0.50	0.50
		Stations & Public Spaces										
		Newark Penn Station Modernization	454.00	34.29	266.72	152.99						
Initiated		Requested Funding - NPS Special Phase 2.0 Master plan	159.88	28.29	125.02	6.58			3.10	8.56	9.45	7.18
Awaiting Funding		Requested Funding	294.12	6.00	141.70	146.42					3.00	3.00
		Newark Penn Station Platform D Improvements	25.80	13.31	12.49	0.00						
Initiated		Existing Funding	25.80	13.31	12.49	0.00		0.02	1.76	1.50	3.00	7.03
		Trenton Station Improvements	49.00	13.05	22.46	13.50						
Initiated		Existing Funding : FRA Grant Funding for Platform & Canopy	29.12	13.05	16.08	0.00		0.05	2.00	2.00	4.00	5.00
Awaiting Funding		Requested Funding	19.88	0.00	6.38	13.50						
		Regional Rail Station Modernization & Access Program	790.00	127.52	662.49	0.00						
Initiated		Existing Funding	2.86	2.86	0.00	0.00			0.25	0.25	1.35	1.01
Awaiting Funding		Requested Funding	787.14	124.66	662.49	0.00			3.52	0.52	12.72	107.90
		Perth Amboy	46.82	42.61	0.00	0.00						
Ongoing		Existing Funding	46.82	42.61	0.00	0.00	4.20	1.97	3.39	18.63	18.63	
		Lyndhurst Station	31.58	27.85	0.00	0.00						
Ongoing		Existing Funding	31.58	27.85	0.00	0.00	3.74	0.84	14.46	10.60	1.95	
		Roselle Park Station Improvements	23.52	12.52	10.77	0.00						
Ongoing		Existing Funding	23.52	12.52	10.77	0.00	0.23	0.74	1.50	2.00	2.50	5.78
		Edison Station Improvements	35.50	13.50	22.00	0.00						
Awaiting Funding		Requested Funding	35.50	13.50	22.00	0.00				2.50	1.00	10.00
		Elizabeth Station Improvements	71.00	52.98	0.00	0.00						
Ongoing		Existing Funding	71.00	52.98	0.00	0.00	18.02	11.89	24.83	16.26		
		Jersey Avenue Station	238.00	2.00	116.00	120.00						
Awaiting Funding		Requested Funding	238.00	2.00	116.00	120.00						2.00
		Metuchen Station Improvements	31.00	2.50	28.50	0.00						
Awaiting Funding		Requested Funding	31.00	2.50	28.50	0.00				0.50	1.00	1.00
		New Brunswick Station Improvements	22.74	13.85	0.00	0.00						
Ongoing		Existing Funding	22.74	13.85	0.00	0.00	8.89	1.51	3.65	6.41	2.28	
		North Elizabeth Station Improvements	32.00	2.17	29.50	0.00						
Ongoing		Existing Funding	2.40	2.07	0.00	0.00	0.33	0.01	0.40	1.50	0.16	
Awaiting Funding		Requested Funding	29.60	0.10	29.50	0.00						0.10
		North Brunswick Station	160.00	40.02	119.98	0.00						
Initiated		Existing Funding	50.00	40.02	9.98	0.00		0.02	5.00	5.00	10.00	20.00
Awaiting Funding		Requested Funding	110.00	0.00	110.00	0.00						

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	RAIL INFRASTRUCTURE	Track & Yards										
		Roseville Cut Improvements	111.00	10.00	101.00	0.00						
Awaiting Funding		Requested Funding	111.00	10.00	101.00	0.00				2.00	4.00	4.00
		Morristown Yard and Pocket Track	148.00	3.00	14.00	131.00						
Awaiting Funding		Requested Funding	148.00	3.00	14.00	131.00					2.00	1.00
		Delco Lead	246.00	119.53	104.09	0.00						
Ongoing		Existing Funding	246.00	119.53	104.09	0.00	22.39	2.53	2.00	15.00	50.00	50.00
		County Yard Expansion	135.00	108.62	7.29	0.00						
Ongoing		Existing Funding	135.00	108.62	7.29	0.00	19.09	1.19	2.00	20.00	45.43	40.00
		Small Yards Rehabilitation Program	434.80	31.80	203.00	200.00						
Awaiting Funding		Requested Funding	434.80	31.80	203.00	200.00						31.80
		Modify Lyons Siding on Gladstone Line	11.00	0.00	2.00	9.00						
Awaiting Funding		Requested Funding	11.00	0.00	2.00	9.00						
		New Boonton Yard	39.50	0.00	15.50	24.00						
Awaiting Funding		Requested Funding	39.50	0.00	15.50	24.00						
		Midline Loop	306.00	17.55	288.45	0.00						
Awaiting Funding		Requested Funding	306.00	17.55	288.45	0.00					9.55	8.00
		Hunter Flyover	300.00	3.00	241.00	56.00						
Initiated		Existing Funding	0.50	0.50	0.00	0.00		0.02	0.48			
Awaiting Funding		Requested Funding	299.50	2.50	241.00	56.00				0.50	1.00	1.00
		Distribution, Transmission & Power										
		Rail Electric Traction Substation Assessment	8.80	8.80	0.00	0.00						
Initiated		Existing Funding	8.80	8.80	0.00	0.00		0.87	2.65	2.65	2.64	
		New Graw Signal Substation	20.00	0.50	19.50	0.00						
Awaiting Funding		Requested Funding	20.00	0.50	19.50	0.00						0.50
		Suffern Substation and Crew Quarters	21.00	13.00	8.00	0.00						
Awaiting Funding		Requested Funding	21.00	13.00	8.00	0.00			0.50	1.00	0.50	11.00
		Wood to Steel Pole Conversion on Gladstone Branch	81.00	31.00	50.00	0.00						
Awaiting Funding		Requested Funding	81.00	31.00	50.00	0.00			1.00	3.00	2.00	25.00
		Electric Traction Storage Facility	25.50	3.00	22.50	0.00						
Awaiting Funding		Requested Funding	25.50	3.00	22.50	0.00				0.50	0.50	2.00
		NJ TRANSITGRID	577.40	195.77	355.40	0.00						
Ongoing		Existing Funding	577.40	195.77	355.40	0.00	26.23	4.77	5.00	36.00	60.00	90.00
		Facilities										
		New Signal Crew Facilities	11.00	3.50	7.50	0.00						
Awaiting Funding		Requested Funding	11.00	3.50	7.50	0.00			0.50	1.00	1.00	1.00
		Auxiliary Transit Operations Facility	130.50	2.50	128.00	0.00						
Awaiting Funding		Requested Funding	130.50	2.50	128.00	0.00			1.00	0.50	0.50	0.50
		Red Bank Crew Quarters Replacement	7.00	1.50	5.50	0.00						
Awaiting Funding		Requested Funding	7.00	1.50	5.50	0.00				0.50	0.50	0.50
		Northern MOW Facility	39.50	9.16	30.25	0.00						
Ongoing		Existing Funding	9.25	9.16	0.00	0.00	0.09	0.17	3.75	5.24		
Awaiting Funding		Requested Funding	30.25	0.00	30.25	0.00						
		Tunnels										
		Bergen Tunnel South Tube Rehabilitation	155.00	11.00	144.00	0.00						
Awaiting Funding		Requested Funding	155.00	11.00	144.00	0.00			1.00	2.00	4.00	4.00
	RAIL EXPANSION		2,045.00	$36.20	$115.47	$1,878.38						
		Lackawanna Cutoff	200.00	36.20	95.47	53.38						
Ongoing		Existing Funding - Phase 1	61.62	36.20	10.47	0.00	14.95		0.20	8.00	12.00	16.00
		New Requested Funding - Phase 1	25.00	0.00	25.00	0.00						
		New Requested Funding - Phase 2	113.38	0.00	60.00	53.38						
		Third Track Between Waldwick to Suffern	619.00	0.00	0.00	619.00						
Awaiting Funding		Requested Funding	619.00	0.00	0.00	619.00						
		Lehigh Third and Fourth Tracks	752.00	0.00	0.00	752.00						
Awaiting Funding		Requested Funding	752.00	0.00	0.00	752.00						
		Westbound Waterfront Connector	474.00	0.00	20.00	454.00						
Awaiting Funding		Requested Funding	474.00	0.00	20.00	454.00						

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	REGIONAL TRANSIT PROJECTS		8,179.39	$1,818.74	$2,526.17	$3,702.38						
Initiated		Secaucus to Meadowlands (Boonton) Transitway										
		New Requested Funding	TBD	TBD	TBD	TBD						
		Northeast Corridor										
		Portal Bridge North	1,660.00	1375.09	176.05	0.00						
Ongoing		Existing Funding (EDA, Amtrak, FTA CIG, CMAQ, TTF)	1,660.00	1375.09	176.05	0.00	108.85	20.69	111.0	320.6	663.8	258.9
		Portal Bridge South Capacity Enhancement	431.00	0.00	4.00	427.00						
Awaiting Funding		Requested Funding	431.00	0.00	4.00	427.00						
		Penn Station New York										
		Penn Station New York – NJ TRANSIT Access Improvement	340.00	23.00	317.00	0.00						
Initiated		Existing Funding	4.50	4.50	0.00	0.00			1.50	1.50	1.50	
Awaiting Funding		Requested Funding	335.50	18.50	317.00	0.00				2.50	8.00	8.00
		Hoboken Terminal And Yard Resilient Redevelopment Program										
		Hoboken Terminal And Yard Resilient Redevelopment Program - Phase I	257.00	49.50	207.50	0.00						
Awaiting Funding		Requested Funding	257.00	49.50	207.50	0.00				8.00	9.50	32.00
		Hoboken Terminal And Yard Resilient Redevelopment Program - Phase II	2,900.00	21.00	119.00	2760.00						
Awaiting Funding		Requested Funding	2,900.00	21.00	119.00	2760.00					14.00	7.00
		Hoboken Long Slip	195.40	172.15	0.00	0.00						
Ongoing		Existing Funding	195.40	172.15	0.00	0.00	23.25	14.32	15.00	50.00	50.00	42.83
		Gateway										
		Gateway Storage Yard and Maintenance Facility	2,396.00	178.00	1702.62	515.38						
Awaiting Funding		Requested Funding *May Include Strategic Land Purchase	2,396.00	178.00	1702.62	515.38				130.00	6.00	42.00
	FERRY		414.00	7.00	$215.00	$192.00						
		New Jersey Ferry Fleet Improvements	414.00	7.00	215.00	192.00						
Awaiting Funding		Requested Funding	414.00	7.00	215.00	192.00				3.00	2.00	2.00
	HEALTH AND SAFETY		12.50	$2.50	$10.00	$0.00						
		Local Police Shelter Implementation Program	12.50	$2.50	$10.00	$0.00						
Awaiting Funding		Requested Funding	12.50	$2.50	$10.00	$0.00			0.50	0.50	1.00	0.50

PROGRESS	PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	PRIOR YEAR COMMITTED FUNDING (PRE FY21)	FY2021	FY2022	FY2023	FY2024	FY2025
	TECHNOLOGY, ASSET MGMT. & PLANNING		696.07	$611.16	$80.88	$0.00						
		Information & Digital Technologies										
		Comprehensive Transit Trip Planner App	3.20	2.90	0.30	0.00						
Awaiting Funding		Requested Funding	3.20	2.90	0.30	0.00			2.00	0.30	0.30	0.30
		NJT Mobile App Development	4.25	4.25	0.00	0.00						
		Existing Funding	1.28	1.28	0.00	0.00		1.28				
Awaiting Funding		Requested Funding	2.96	2.96	0.00	0.00			2.00	0.96		
		IT Business Unit Improvements	126.17	105.86	20.31	0.00						
Initiated		Existing Funding	38.56	38.56	0.00	0.00		0.88	10.90	12.03	8.33	6.43
		Requested Funding	87.61	67.30	20.31	0.00			10.50	12.75	20.79	23.25
		IT HQ Improvements	84.91	82.41	2.49	0.00						
Initiated		Existing Funding	30.59	30.59	0.00	0.00		2.07	10.50	8.65	6.33	3.03
Awaiting Funding		Requested Funding	54.31	51.82	2.49	0.00			19.50	14.38	10.62	7.33
		IT Surface Transit Improvements	157.64	134.18	23.46	0.00						
Initiated		Existing Funding	0.17	0.17	0.00	0.00		0.17	0.00			
Awaiting Funding		Requested Funding	157.48	134.02	23.46	0.00			8.00	36.42	53.41	36.19
		IT Rail Improvements	56.14	50.49	5.65	0.00						
Awaiting Funding		Requested Funding	56.14	50.49	5.65	0.00			11.00	20.27	12.07	7.15
		Surface Transportation Technology Innovation Program	20.00	16.00	4.00	0.00						
Awaiting Funding		Requested Funding	20.00	16.00	4.00	0.00			4.00	4.00	4.00	4.00
		Low Speed AV Pilot	8.00	8.00	0.00	0.00						
Awaiting Funding		Requested Funding	8.00	8.00	0.00	0.00			3.00	5.00		
		Enterprise Asset Management & Planning										
		Enterprise Asset Management: Facility Inspections FY21 – FY23	8.73	7.08	1.65	0.00						
Initiated		Existing Funding	8.73	7.08	1.65	0.00		0.01	1.37	2.35	2.35	0.99
		Enterprise Asset Management PMO	8.20	8.20	0.00	0.00						
Initiated		Existing Funding	8.20	8.20	0.00	0.00		1.75	2.91	1.93	0.81	0.80
		Updated Planning Studies	5.00	4.00	1.00	0.00						
Awaiting Funding		Requested Funding	5.00	4.00	1.00	0.00			1.00	1.00	1.00	1.00
		Stations and Public Facility Priority Repairs										
		SoGR Program	213.83	187.80	22.00	0.00						
Ongoing		Brick Church	8.40	8.20	0.00	0.00	0.20	0.03	4.93	3.23		
Ongoing		Existing Funding - NPS Special Phase 1.1	3.80	2.30	0.00	0.00	1.50	0.62	1.68			
Ongoing		Existing Funding - NPS Special Phase 1.2	6.40	6.20	0.00	0.00	0.20	0.58	3.13	2.49		
Ongoing		Existing Funding	88.55	84.41	2.00	0.00	2.14	4.31	40.64	34.84	2.31	2.31
		Requested Funding - LTWP	100.00	80.00	20.00	0.00			20.00	20.00	20.00	20.00
		Requested Funding - ADA Compliance	3.69	3.69	0.00	0.00			0.50	1.72	1.47	
		Requested Funding - Kingsland Station Decommisioning Project	3.00	3.00	0.00	0.00			1.50	1.50		
		Total Estimated Project Costs		$8,899.38	$13,781.96	$15,438.01		$461.60	$1,068.04	$2,027.72	$2,602.82	$2,739.20
		Existing Funding		4,981.98	1,491.82	25.00		461.60	754.94	1,242.16	1,475.82	1,047.45
		FUNDING NEED FOR MAJOR PROJECTS AND PROGRAMS		3,917.40	12,290.14	15,413.01		$0.00	$313.09	785.56	1,127.00	1,691.75

able 2: Capital Plan Major Projects and Programs, Progress and Unconstrainted
sh Flow

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
BUS GARAGES		2,680.01	$1,017.51	$994.50	$668.00						
	Expansion										-
	Northern Bus Garage *Excludes Property Acquisition Costs	536.00	536.00	0.00	0.00						-
	Existing Funding *Includes Some Strategic Land Purchase	73.42	73.42	0.00	0.00						-
	Requested Funding	462.58	462.58	0.00	0.00						-
	Second Northern Bus Garage	392.00	3.00	111.00	278.00						-
	Requested Funding	392.00	3.00	111.00	278.00	1.00	1.00	14.00	3.00	92.00	278.00
											-
	Modernization										-
	Bus Garage Modernization Program	1,143.52	471.51	574.00	98.00						-
	Existing Funding - Wayne Early Action Rehabilitation	28.52	28.51	0.00	0.00						
	Requested Funding - Phase I	266.00	266.00	0.00	0.00						-
	Requested Funding - Phase II	537.00	177.00	360.00	0.00	120.0	120.0	120.0			-
	Requested Funding - Phase III	312.00	0.00	214.00	98.00		4.0	14.0	98.0	98.0	98.00
											-
	Garage Replacement										-
	Bus Garage Replacement Program	608.50	7.00	309.50	292.00						-
	Requested Funding	608.50	7.00	309.50	292.00	17	0.5	66	96	130	292.00

BUS FLEET		6,571.09	$1,237.12	$1,243.40	$3,625.00						
	Zero Emissions Buses										-
	Bus Fleet Electrification Implementation Program	310.50	4.50	306.00	0.00						-
	Requested Funding	310.50	4.50	306.00	0.00	93	120	93			-
	Electric Bus Fleet Early Deployment	38.88	38.88	0.00	0.00						-
	Existing Funding - Infrastructure/Charging Stations Newton	4.94	4.94	0.00	0.00						
	Existing Funding - Newton Bus Purchases	8.84	8.84	0.00	0.00						-
	*Funding awarded but not obligated - Hilton Bus Purchase FY20 Award	10.10	10.10	0.00	0.00						
	Requested Funding - Hilton Infrastructure	15.00	15.00	0.00	0.00						
	Zero Emission Bus System Design and Investment Planning Study	9.50	9.10	0.40	0.00						-
	New Requested Funding	9.50	9.10	0.40	0.00	0.4					-
											-
	Fleet Replacement										-
	Bus Fleet Replacement - Cruiser Buses	799.58	334.55	0.00	0.00						-
	Existing Funding: Cruiser Buses - 1222	668.33	203.30	0.00	0.00						-
	Existing Funding: Cruiser Buses - 172	131.25	131.25	0.00	0.00						-
											-
	Fleet and/or Capacity Enhancement										-
	Bus Fleet Replacement - NABI	846.05	$423.75	$422.30	$0.00						-
	Existing Funding - 1299	846.05	423.75	422.30	0.00	156.00	156.00	110.30			-
	Bus Fleet Replacement - Articulated Buses	91.32	$90.78	$0.00	$0.00						-
	Existing Funding (85 + 25)	91.32	90.78	0.00	0.00						-
	Bus Fleet Replacement Program	4,475.25	$335.55	$514.70	$3,625.00						-
	Existing Funding: Future Purchases	281.00	156.00	100.00	25.00	25.00		25.00	25.00	25.00	25.00
	Requested Funding	4,194.25	179.55	414.70	3600.00			64.7	175.0	175.0	3,600.00

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
BUS INFRASTRUCTURE		1,295.57	$91.07	$986.01	$218.00						
	Public Spaces & Stations										-
	Walter Rand Transportation Center Redevelopment	274.97	4.44	270.51	0.00						-
	Existing Funding	1.50	1.48	0.00	0.00						-
	Requested Funding	273.46	2.95	270.51	0.00	17.5	13.0	100.0	100.0	40.0	-
	North Bergen Park & Ride Parking Garage	124.70	5.20	11.50	108.00						-
	Existing Funding Site Preparation	4.20	4.20	0.00	0.00						-
	Requested Funding	120.50	1.00	11.50	108.00	1.5	0.5	0.5	7.0	2.0	108.00
	Old Bridge Park & Ride Enhancement	21.50	3.00	18.50	0.00						-
	Requested Funding	21.50	3.00	18.50	0.00	0.50	6.0	7.0	5.0		-
	Park & Ride Bus Shelter Modernization Program	75.00	22.00	53.00	0.00						-
	Requested Funding	75.00	22.00	53.00	0.00	18.0	17.0	18.0			-
	Local Bus Shelter Modernization Program	16.50	1.50	15.00	0.00						-
	Requested Funding	16.50	1.50	15.00	0.00	3.00	3.00	3.0	3.0	3.0	-
	Passaic Bus Terminal Redevelopment	5.58	5.11	0.00	0.00						-
	Existing Funding	5.58	5.11	0.00	0.00						-
											-
	Rapid Surface Transit System										-
	New Brunswick Rapid Surface Transit Study	10.00	10.00	0.00	0.00						-
	Requested Funding	10.00	10.00	0.00	0.00						-
	Rapid Surface Transit System Development & Design Program	538.00	22.00	406.00	110.00						-
	Requested Funding	538.00	22.00	406.00	110.00	13.00	3.0	110.0	140.0	140.0	110.00
	Bergen County Bus Rapid Transit Network	168.00	14.00	154.00	0.00						-
	Requested Funding	168.00	14.00	154.00	0.00	4.0	33.0	42.0	42.0	33.0	-
	Princeton Transitway	61.32	3.82	57.50	0.00						-
	Existing Funding	0.32	0.32	0.00	0.00						-
	Requested Funding	61.00	3.50	57.50	0.00	2.50	1.0	30.0	24.0		
ACCESS LINK		111.36	$45.12	$13.00	$53.00						
	Fleet										
	Access Link Fleet Modernization and Expansion	49.86	42.62	7.00	0.00						
	Existing Funding	49.86	42.62	7.00	0.00	7.00					
	Technology										
	Access Link Electric Vehicle (EV) Pilot Program	2.50	2.50	0.00	0.00						
	Requested Funding	2.50	2.50	0.00	0.00						
	Facilities										
	New Access Link Garage	59.00	0.00	6.00	53.00						
	Requested Funding	59.00	0.00	6.00	53.00	0.5	0.5	0.5	4.0	0.5	53.00

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
LIGHT RAIL		1,916.07	$181.91	$989.49	$723.00						
	River LINE										
	River LINE Right-of-Way Flooding	1.00	1.00	0.00	0.00						
	Requested Funding	1.00	1.00	0.00	0.00						
	River LINE Fleet Overhaul - Repower	31.00	25.18	3.19	0.00						
	Existing Funding	31.00	25.18	3.19	0.00	3.19					
	River LINE Fleet Overhaul - Fleet Replacement	70.00	0.00	70.00	0.00						
	Requested Funding - for other elements	70.00	0.00	70.00	0.00	30.00	16	16	8		
	Newark Light Rail										
	Newark Light Rail (NLR) Capacity Enhancement	32.50	32.50	0.00	0.00						
	Requested Funding	32.50	32.50	0.00	0.00						
	Newark Light Rail (NLR) Station Modernization & Access Program	130.16	47.75	81.00	0.00						
	Existing Funding	3.98	2.57	0.00	0.00						
	Requested Funding	126.18	45.18	81.00	0.00	44.0	37				
	Hudson-Bergen Light Rail										
	Hudson-Bergen Light Rail (HBLR) Hoboken WYE Bypass	89.00	8.00	81.00	0.00						
	Requested Funding	89.00	8.00	81.00	0.00	1.0	45.0	35.0			
	Hudson-Bergen Light Rail (HBLR) Northern Branch Corridor	1,178.00	0.00	487.99	690.00						
	Existing Funding	98.94	0.00	98.93	0.00	24.73	24.73	24.73	24.73		
	Requested Funding	1,079.06	0.00	389.06	690.00				139.06	250	690.00
	Hudson-Bergen Light Rail (HBLR) Route 440 Extension	248.40	64.49	166.31	0.00						
	Existing Funding	27.99	10.39	0.00	0.00						
	Requested Funding	220.41	54.10	166.31	0.00	56	61	49.31			
	Paterson Avenue Grade Crossing Elimination	136.00	3.00	100.00	33.00						
	Requested Funding	136.00	3.00	100.00	33.00	5.00	5.00	3.0	33.0	54.0	33.00
RAIL FLEET		4,709.68	$2,086.67	$1,945.25	$677.76						
	Fleet Replacement										
	Rail Fleet Replacement - Phase I - Overhaul	1,597.35	846.51	511.85	238.99						
	GP -40 Diesel Locomotive Overhaul (7) Proposed	23.50	23.50	0.00	0.00						
	PL42 Diesel Locomotive Overhaul (10)	41.80	41.80	0.00	0.00						
	Requested Funding	1,532.05	781.21	511.85	238.99	126.1	157.8	133.2	43.6	51.2	238.99
	Fleet and/or Capacity Enhancement										
	Rail Fleet Replacement - Phase II - New Car Purchases	3,034.32	1198.16	1397.39	438.77						
	Existing Funding - Multilevel IIIs	574.74	495.61	79.12	0.00	34.2	44.9				
	Existing Funding - Dual Power ALP 45 locamotives (17) (Includes EDA funding)	123.85	123.85	0.00	0.00						
	Existing Funding - Dual Locos (8)	82.14	82.14	0.00	0.00						
	Requested Funding - remaining after allocating the Rolling Stock Options	2,253.60	496.55	1318.27	438.77	230.8	275.6	367.6	219.8	224.6	438.77
	Overhaul/State of Good Repair										
	Train Battery Pilot	46.00	10.00	36.00	0.00						
	Requested Funding	46.00	10.00	36.00	0.00	18.00	18.00				
	Machine Vision Implementation Program	32.00	32.00	0.00	0.00						
	Requested Funding	32.00	32.00	0.00	0.00						

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
		10,267.97	$1,764.37	$4,662.80	$3,700.49						
	Bridges										
	Raritan River Bridge Replacement	595.00	495.80	62.20	0.00						
	Existing Funding	595.00	495.80	62.20	0.00	62.2					
	Overhead Bridge Replacement Program	845.50	45.50	200.00	600.00						
	Requested Funding	845.50	45.50	200.00	600.00	40.0	40.0	40.0	40.0	40.0	600.00
	Newark Draw Bridge Replacement & Capacity Enhancement	676.00	61.00	447.00	168.00						
	Existing Funding	6.00	6.00	0.00	0.00						
	Requested Funding	670.00	55.00	447.00	168.00	13	4	110	140	180	168.00
	Undergrade Bridge Replacement Program	1,903.00	103.00	450.00	1350.00						
	Requested Funding	1,903.00	103.00	450.00	1350.00	90	90	90	90	90	1,350.00
	South Laurel Ave Bridge Replacement & Clearance Improvement	46.50	4.50	42.00	0.00						
	Requested Funding	46.50	4.50	42.00	0.00	1.0	13.0	17	11		
	Brielle Draw Bridge Replacement & Capacity	204.00	9.00	195.00	0.00						
	Existing Funding	4.00	4.00	0.00	0.00						
	Requested Funding	200.00	5.00	195.00	0.00	8	70	70	47		
	HX Draw Bridge Replacement	269.00	0.00	22.00	247.00						
	Requested Funding	269.00	0.00	22.00	247.00	2.0	2.0	2.0	8	8	247.00
	Upper Hack Lift Bridge Capacity Enhancement	267.00	4.00	94.00	169.00						
	Requested Funding	267.00	4.00	94.00	169.00	2.0	8.0	8.0	2	74	169.00
	Shark River Draw Bridge Replacement	170.00	0.00	2.00	168.00						
	Requested Funding	170.00	0.00	2.00	168.00				1	1	168.00
	West Front Street Bridge Replacement Study	2.00	0.00	2.00	0.00						
	Requested Funding	2.00	0.00	2.00	0.00		1	1			
	Morgan Draw Bridge Replacement	236.00	0.00	17.00	219.00						
	Requested Funding	236.00	0.00	17.00	219.00	1	1.0	1.0	7.0	7.0	219.00
	Signals & Interlockings										
	WC interlocking Reconfiguration	13.00	8.00	5.00	0.00						
	Requested Funding	13.00	8.00	5.00	0.00	5					
	West Summit Interlocking	96.50	58.18	38.21	0.00						
	Phase I: Interlocking Relocation	52.00	52.00	0.00	0.00						
	Phase II - Wall Repair & Drainage Design	3.09	2.98	0.00	0.00						
	Phase II - Wall Repair & Drainage Construction	16.00	3.20	12.80	0.00	3.20	3.2	3.2	3.20		
	Requested Funding	25.41	0.00	25.41	0.00	1.5	13.91	10			
	Millburn Interlocking Reconfiguration	111.00	2.00	41.00	68.00						
	Requested Funding	111.00	2.00	41.00	68.00	1.0	4.0	4.0	1.0	31.0	68.00
	Dover Interlocking Reconfiguration Study	1.00	1.00	0.00	0.00						
	Requested Funding	1.00	1.00	0.00	0.00						
	New Interlocking between Glen and Cedar Interlockings	13.50	1.00	7.50	5.00						
	Requested Funding	13.50	1.00	7.50	5.00	1			0.5	6.0	5.00
	Stations & Public Spaces										
	Newark Penn Station Modernization	454.00	34.29	266.72	152.99						
	Requested Funding - NPS Special Phase 2.0 Master plan	159.88	28.29	125.02	6.58	19.8	26.3	26.3	26.3	26.3	6.58
	Requested Funding	294.12	6.00	141.70	146.42	3.0	11.0	11.0	3.0	113.7	146.42
	Newark Penn Station Platform D Improvements	25.80	13.31	12.49	0.00						
	Existing Funding	25.80	13.31	12.49	0.00	7.03	5.5				
	Trenton Station Improvements	49.00	13.05	22.46	13.50						
	Existing Funding : FRA Grant Funding for Platform & Canopy	29.12	13.05	16.08	0.00	5.00	5.00	6.08			
	Requested Funding	19.88	0.00	6.38	13.50			0.5	1.98	3.9	13.50
	Regional Rail Station Modernization & Access Program	790.00	127.52	662.49	0.00						
	Existing Funding	2.86	2.86	0.00	0.00						
	Requested Funding	787.14	124.66	662.49	0.00	122.09	160	160	120	100.4	
	Perth Amboy	46.82	42.61	0.00	0.00						
	Existing Funding	46.82	42.61	0.00	0.00						
	Lyndhurst Station	31.58	27.85	0.00	0.00						
	Existing Funding	31.58	27.85	0.00	0.00						
	Roselle Park Station Improvements	23.52	12.52	10.77	0.00						
	Existing Funding	23.52	12.52	10.77	0.00	5.8	5.0				
	Edison Station Improvements	35.50	13.50	22.00	0.00						
	Requested Funding	35.50	13.50	22.00	0.00	13.0	9.0				
	Elizabeth Station Improvements	71.00	52.98	0.00	0.00						
	Existing Funding	71.00	52.98	0.00	0.00						
	Jersey Avenue Station	238.00	2.00	116.00	120.00						
	Requested Funding	238.00	2.00	116.00	120.00	5	5	2.0	44.0	60	120.00
	Metuchen Station Improvements	31.00	2.50	28.50	0.00						
	Requested Funding	31.00	2.50	28.50	0.00	0.5	9.0	11.0	8.0		
	New Brunswick Station Improvements	22.74	13.85	0.00	0.00						
	Existing Funding	22.74	13.85	0.00	0.00						
	North Elizabeth Station Improvements	32.00	2.17	29.50	0.00						
	Existing Funding	2.40	2.07	0.00	0.00						
	Requested Funding	29.60	0.10	29.50	0.00	0.5	9	12	8		
	North Brunswick Station	160.00	40.02	119.98	0.00						
	Existing Funding	50.00	40.02	9.98	0.00	9.98					
	Requested Funding	110.00	0.00	110.00	0.00		20.00	48.00	42		

RAIL INFRASTRUCTURE

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
RAIL INFRASTRUCTURE	Track & Yards										
	Roseville Cut Improvements	111.00	10.00	101.00	0.00						
	Requested Funding	111.00	10.00	101.00	0.00	1	22.0	28.0	28.0	22.0	
	Morristown Yard and Pocket Track	148.00	3.00	14.00	131.00						
	Requested Funding	148.00	3.00	14.00	131.00	1.0	1.0	5	5	2.0	131.00
	Delco Lead	246.00	119.53	104.09	0.00						
	Existing Funding	246.00	119.53	104.09	0.00	80.0	24.1				
	County Yard Expansion	135.00	108.62	7.29	0.00						
	Existing Funding	135.00	108.62	7.29	0.00	7.3					
	Small Yards Rehabilitation Program	434.80	31.80	203.00	200.00						
	Requested Funding	434.80	31.80	203.00	200.00	50	29	37	53	34	200.00
	Modify Lyons Siding on Gladstone Line	11.00	0.00	2.00	9.00						
	Requested Funding	11.00	0.00	2.00	9.00		0.5	0.5	0.5	0.5	9.00
	New Boonton Yard	39.50	0.00	15.50	24.00						
	Requested Funding	39.50	0.00	15.50	24.00	0.5	0.5	3	0.5	11	24.00
	Midline Loop	306.00	17.55	288.45	0.00						
	Requested Funding	306.00	17.55	288.45	0.00	6.5	62.0	79.0	79.0	62.0	
	Hunter Flyover	300.00	3.00	241.00	56.00						
	Existing Funding	0.50	0.50	0.00	0.00						
	Requested Funding	299.50	2.50	241.00	56.00	6.0	6.0	60.0	80.0	89.0	56.00
	Distribution, Transmission & Power										
	Rail Electric Traction Substation Assessment	8.80	8.80	0.00	0.00						
	Existing Funding	8.80	8.80	0.00	0.00						
	New Graw Signal Substation	20.00	0.50	19.50	0.00						
	Requested Funding	20.00	0.50	19.50	0.00	1	0.5	10	8		
	Suffern Substation and Crew Quarters	21.00	13.00	8.00	0.00						
	Requested Funding	21.00	13.00	8.00	0.00	8.0					
	Wood to Steel Pole Conversion on Gladstone Branch	81.00	31.00	50.00	0.00						
	Requested Funding	81.00	31.00	50.00	0.00	25.0	25.00				
	Electric Traction Storage Facility	25.50	3.00	22.50	0.00						
	Requested Funding	25.50	3.00	22.50	0.00	0.50	11.00	11.00			
	NJ TRANSITGRID	577.40	195.77	355.40	0.00						
	Existing Funding	577.40	195.77	355.40	0.00	90.0	90.00	87.70	87.70		
	Facilities										
	New Signal Crew Facilities	11.00	3.50	7.50	0.00						
	Requested Funding	11.00	3.50	7.50	0.00	1.00	0.50	3.00	3.00		
	Auxiliary Transit Operations Facility	130.50	2.50	128.00	0.00						
	Requested Funding	130.50	2.50	128.00	0.00	8.00	2.0	37.0	51.0	30.0	
	Red Bank Crew Quarters Replacement	7.00	1.50	5.50	0.00						
	Requested Funding	7.00	1.50	5.50	0.00	0.50	0.50	0.50	4		
	Northern MOW Facility	39.50	9.16	30.25	0.00						
	Existing Funding	9.25	9.16	0.00	0.00						
	Requested Funding	30.25	0.00	30.25	0.00	4.5	16.0	9.8			
	Tunnels										
	Bergen Tunnel South Tube Rehabilitation	155.00	11.00	144.00	0.00						
	Requested Funding	155.00	11.00	144.00	0.00	2.00	44.00	63.00	35.00		
RAIL EXPANSION		2,045.00	$36.20	$115.47	$1,878.38						
	Lackawanna Cutoff	200.00	36.20	95.47	53.38						
	Existing Funding - Phase 1	61.62	36.20	10.47	0.00	10.47					
	New Requested Funding - Phase 1	25.00	0.00	25.00	0.00		25.0				
	New Requested Funding - Phase 2	113.38	0.00	60.00	53.38			20.0	20.0	20.0	53.38
	Third Track Between Waldwick to Suffern	619.00	0.00	0.00	619.00						
	Requested Funding	619.00	0.00	0.00	619.00						619.00
	Lehigh Third and Fourth Tracks	752.00	0.00	0.00	752.00						
	Requested Funding	752.00	0.00	0.00	752.00						752.00
	Westbound Waterfront Connector	474.00	0.00	20.00	454.00						
	Requested Funding	474.00	0.00	20.00	454.00	3	2	2	2	11	454.00

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
REGIONAL TRANSIT PROJECTS		8,179.39	$1,818.74	$2,526.17	$3,702.38						
	Secaucus to Meadowlands (Boonton) Transitway										
	New Requested Funding	TBD	TBD	TBD	TBD						
	Northeast Corridor										
	Portal Bridge North	1,660.00	1375.09	176.05	0.00						
	Existing Funding (EDA, Amtrak, FTA CIG, CMAQ, TTF)	1,660.00	1375.09	176.05	0.00	76.5	60.5	39.1			
	Portal Bridge South Capacity Enhancement	431.00	0.00	4.00	427.00						
	Requested Funding	431.00	0.00	4.00	427.00					4.0	427.00
	Penn Station New York										
	Penn Station New York – NJ TRANSIT Access Improvement	340.00	23.00	317.00	0.00						
	Existing Funding	4.50	4.50	0.00	0.00						
	Requested Funding	335.50	18.50	317.00	0.00	3	97	120	97		
	Hoboken Terminal And Yard Resilient Redevelopment Program										
	Hoboken Terminal And Yard Resilient Redevelopment Program - Phase I	257.00	49.50	207.50	0.00						
	Requested Funding	257.00	49.50	207.50	0.00	58.0	67.0	54.5	28.0		
	Hoboken Terminal And Yard Resilient Redevelopment Program - Phase II	2,900.00	21.00	119.00	2760.00						
	Requested Funding	2,900.00	21.00	119.00	2760.00	7.0	7.0	51.0	51.0	3.0	2,760.00
	Hoboken Long Slip	195.40	172.15	0.00	0.00						
	Existing Funding	195.40	172.15	0.00	0.00						
	Gateway										
	Gateway Storage Yard and Maintenance Facility	2,396.00	178.00	1702.62	515.38						
	Requested Funding *May Include Strategic Land Purchase	2,396.00	178.00	1702.62	515.38	42.0	10.6	500.0	510.0	640.0	515.38
FERRY		414.00	7.00	$215.00	$192.00						
	New Jersey Ferry Fleet Improvements	414.00	7.00	215.00	192.00						
	Requested Funding	414.00	7.00	215.00	192.00	10.0	10.0	3.0	82.0	110.0	192.00
HEALTH AND SAFETY		12.50	$2.50	$10.00	$0.00						
	Local Police Shelter Implementation Program	12.50	$2.50	$10.00	$0.00						
	Requested Funding	12.50	$2.50	$10.00	$0.00	2	3	3	2		

PROJECT CATEGORY	PROJECT NAME	TOTAL ESTIMATED PROJECT COSTS (2020 DOLLARS)	5-YEAR ESTIMATED TOTAL PROJECT COST	FY26-30 ESTIMATED TOTAL PROJECT COST	FY30+ ESTIMATED TOTAL PROJECT COST	FY2026	FY2027	FY2028	FY2029	FY2030	Beyond 2030
TECHNOLOGY, ASSET MGMT. & PLANNING		696.07	$611.16	$80.88	$0.00						
	Information & Digital Technologies										
	Comprehensive Transit Trip Planner App	3.20	2.90	0.30	0.00						
	Requested Funding	3.20	2.90	0.30	0.00	0.30					
	NJT Mobile App Development	4.25	4.25	0.00	0.00						
	Existing Funding	1.28	1.28	0.00	0.00						
	Requested Funding	2.96	2.96	0.00	0.00						
	IT Business Unit Improvements	126.17	105.86	20.31	0.00						
	Existing Funding	38.56	38.56	0.00	0.00						
	Requested Funding	87.61	67.30	20.31	0.00	20.31					
	IT HQ Improvements	84.91	82.41	2.49	0.00						
	Existing Funding	30.59	30.59	0.00	0.00						
	Requested Funding	54.31	51.82	2.49	0.00	2.49					
	IT Surface Transit Improvements	157.64	134.18	23.46	0.00						
	Existing Funding	0.17	0.17	0.00	0.00						
	Requested Funding	157.48	134.02	23.46	0.00	23.46					
	IT Rail Improvements	56.14	50.49	5.65	0.00						
	Requested Funding	56.14	50.49	5.65	0.00	5.65					
	Surface Transportation Technology Innovation Program	20.00	16.00	4.00	0.00						
	Requested Funding	20.00	16.00	4.00	0.00	4.00					
	Low Speed AV Pilot	8.00	8.00	0.00	0.00						
	Requested Funding	8.00	8.00	0.00	0.00						
	Enterprise Asset Management & Planning										
	Enterprise Asset Management: Facility Inspections FY21 – FY23	8.73	7.08	1.65	0.00						
	Existing Funding	8.73	7.08	1.65	0.00	1.65					
	Enterprise Asset Management PMO	8.20	8.20	0.00	0.00						
	Existing Funding	8.20	8.20	0.00	0.00						
	Updated Planning Studies	5.00	4.00	1.00	0.00						
	Requested Funding	5.00	4.00	1.00	0.00	1.00					
	Stations and Public Facility Priority Repairs										
	SoGR Program	213.83	187.80	22.00	0.00						
	Brick Church	8.40	8.20	0.00	0.00						
	Existing Funding - NPS Special Phase 1.1	3.80	2.30	0.00	0.00						
	Existing Funding - NPS Special Phase 1.2	6.40	6.20	0.00	0.00						
	Existing Funding	88.55	84.41	2.00	0.00	2.00					
	Requested Funding - LTWP	100.00	80.00	20.00	0.00	20.00					
	Requested Funding - ADA Compliance	3.69	3.69	0.00	0.00						
	Requested Funding - Kingsland Station Decommisioning Project	3.00	3.00	0.00	0.00						
	Total Estimated Project Costs		$8,899.38	$13,781.96	$15,438.01	$2,061.06	$2,295.10	$3,306.86	$3,020.84	$3,098.09	15,438.01
	Existing Funding		4,981.98	1,491.82	25.00	611.24	418.87	296.08	140.63	25.00	25.00
	FUNDING NEED FOR MAJOR PROJECTS AND PROGRAMS		3,917.40	12,290.14	15,413.01	1,449.83	1,876.23	3,010.79	2,880.21	3,073.09	15,413.01

MODE/PROJECT CATEGORY			$ Total Estimated Costs for all projects in this Mode/Project Category
	Progress	Project/Mode Subcategory	
		Project Name	Total Estimated Project Cost (Existing Funding + New Requested Funding)
	Initiated	Existing Funding	$
	Awaiting Funding	New Requested Funding	$

LEGEND	
Concept Development	
Preliminary Engineering	***
Final Design	
Design Build	
Construction	

***NEPA durations are assumed parallel to Preliminary Engineering durations shown.

Appendix A: Unconstrained Financial Summary

Table 3 - Capital Plan: Rehabilitation and Programs Unconstrained Estimated Cash-flow Sheet

Appendix A Table 3: Capital Plan: Rehabilitation Projects and Programs, Progress and Unconstrainted Estimated Cash Flow

$ in Millions

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
Total for Departmental Rehabilitation Projects	62.00	355.57	300.73	269.45	280.03	251.72	1,267.78
Existing Funding for Departmental Rehabilitation Projects	62.00	68.24	69.01	71.41	71.41	69.18	342.08
FUNDING NEED FOR DEPARTMENTAL REHABILITATION PROJECTS	0.00	287.32	231.72	198.04	208.62	182.55	925.70

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
RAIL FLEET	Rail Fleet Reliability Program	0.0	40.6	16.7	14.0	14.0	6.0	85.4
	FRA APTA Mandated Standards - Modernize fleet to meet FRA cabin standards		1.0	1.0	1.0	1.0	1.0	4.0
	Locomotive/Passenger Battery Replacement and Car Glazing Replacement		5.0	5.0	5.0	5.0	5.0	20.2
	Comet & MLV HVAC Overhaul		9.5					9.5
	Multilevel II Truck Overhaul		11.3	2.6				13.9
	Comet II Seat Replacement		5.8					5.8
	ALP45 Engine Overhaul		8.0	8.0	8.0	8.0		32.0
	MMC SOGR Program	0.0	14.4	15.7	9.8	2.3		42.0
	SoGR Passarelle Overhaul			0.3	2.3	2.3		4.8
	New Fire Alarm/Sprinkler System		2.0	4.0	4.0			10.0
	Replace Underground Water Line		0.5	1.5	1.0			3.0
	MMC / ROC Bird Prevention		0.4	0.4				0.8
	MMC Wheel Press Replacement		1.7	0.7				2.4
	MMC Air Room Secondary Work Tier Expansion		0.3	0.3				0.5
	MMC Catenary Trolley Cage Control Improvements		0.3	0.3	0.3			0.8
	MMC Facility Oil/Water Separator		1.5	1.5				3.0
	MMC Facility Pre-Treatment Facility Controls Upgrade or Overhaul		0.5	0.5				1.0
	Yardmaster tower rebuild/improvement		2.0	2.0	2.0			6.0
	MMC Toilet Tank Facility		0.8	0.8	0.3			1.8

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
RAIL FLEET	MMC/ROC snow melter system		0.4	0.4				0.8
	MMC 100 ton gantry		0.3	0.3				0.6
	MMC DEF Distribution and Containment Area for ALP 45's		0.3	0.3				0.5
	MMC Multi-Tier Storage area for Wheels		0.2					0.2
	MMC Shop Air Compressor Replacements		0.4	0.4				0.7
	MMC Perimeter Control Rehabilitation		0.1					0.1
	MMC Secondary access for vehicles		0.3	0.3				0.5
	MMC Sand Tower Distribution overhaul at locomotives 5 & 6		0.3					0.3
	MMC Fuel Pad Fire Suppression System		0.2					0.2
	MMC Building 12 Upgrades for Occupancy		0.3	0.3				0.5
	MMC/ROC Main Gate Flooding Resolution		0.3	0.3				0.5
	MMC Facility Drawing Survey/updates for all as-builts		0.2					0.2
	MMC East End Catenary extension track 10, 11, & 12 east		0.5	0.5				1.0
	MMC Facility/Yard High Bay Light Pole Replacements		0.8	0.8				1.5
	MMC Increased Camera/Quality View Locations		0.3	0.3				0.5
RAIL INFRASTRUCTURE	Switch Snow Melter Program	0.0	1.5	1.5	1.5	1.5	1.5	5.9
	Switch Heater Repair		0.7	0.7	0.7	0.7	0.7	2.6
	New Switch Snow Blowers		0.4	0.4	0.4	0.4	0.4	1.5
	Replace Snow Melter Control Panels		0.5	0.5	0.5	0.5	0.5	1.8
	Electrical Infrastructure Enhancement Program	0.0	0.6	0.9	0.9	0.3	0.3	2.5
	ET TMAC		0.3	0.3	0.3	0.3	0.3	1.0
	Electrical Systems Missing Line Diagrams		0.3	0.6	0.6			1.5
	IT Infrastructure Enhancement Program	0.0	2.0	1.0	1.0	1.0	0.5	4.9
	Bridge Inspection Reporting System		1.5	0.5	0.5	0.5		3.0
	ET Security Control		0.5	0.5	0.5	0.5	0.5	1.9
	Signal System SoGR Program	0.0	14.0	14.8	10.8	39.1	42.8	78.5
	Signal Resiliency		3.2	4.0				7.2
	Replace 10.6 Miles of Signal System Between Green and Summit Interlockings					11.0	11.0	11.0
	Replace C&S System between Brielle and Shark (5.6 Miles)		5.0	5.0	5.0	5.0		20.0
	Replace C&S System between Shark and Bath (7.7 Miles)					11.0	11.0	11.0
	Renew Signal System Between Matawan and Lily					6.3	15.0	6.3
	Signal System State of Good Repair		5.8	5.8	5.8	5.8	5.8	23.0

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
	ET Reliability Program	0.0	11.7	13.7	22.8	16.5	3.0	64.7
	Back-up Signal Service				2.0	1.5		3.5
	Replace Signal Lines with Covered Conductor				0.5	0.5		1.0
	Replace Signal Line Cutouts		0.2	0.3	0.3			0.8
	ET Signal System Modernization			0.3	1.4	1.4		3.1
	Replace Signal Substation Equipment MC1 and MC2		0.7	0.2				0.9
	Add Autotransformers at Great Notch Substation				0.3	2.0		2.3
	Replace Roseville Ave Substation				0.2	0.5		0.7
	Replace Silicon-Carbide Arresters		0.1	0.1	0.1	0.1	0.1	0.4
	Suspension Insulator Replacement (Premali)		0.1	0.1	0.1	0.1	0.1	0.4
	New Additional Catenary Sectionalization		0.2	0.2	0.2	0.2		0.8
	Distribution Substation Assessment and Remediation			0.5	0.5	0.5		1.5
	Signal Motor Generator Overhaul		0.5	0.5				1.0
	Suspension Insulator Replacement (Post-Insulators)		0.2	0.2	0.2	0.2	0.2	0.8
	Summit Hill Traction Feeder Restoration		0.2	0.2	0.2	0.2		0.8
	West End Substation Relay Protection Modifications		0.2	0.2				0.3
	Replacement of Electrical Station Service Transformers		0.4	0.4	0.4	0.4	0.4	1.5
RAIL INFRASTRUCTURE	Auto Transformer Installation at West Wharton Traction Power Substation		3.1	2.2	0.3			5.6
	Replace Gas Insulated Bus at West Wharton and Summit (including entrance breaker)			0.7	5.4	1.3		7.4
	System Wide Replacement of Battery Charging Equipment		0.4	0.4	0.4	0.4	0.4	1.5
	ARC Flash Requirements		0.3	0.3	0.3	0.3	0.3	1.2
	Mobile Back Up Generators		0.2	0.2	0.2	0.2		0.8
	South Amboy Substation Entrance Breakers & Protection			0.3	2.1	2.1		4.5
	Assessment of Remote Terminal Communication Units (RTU)		0.3	0.3	0.3	0.3	0.3	1.0
	Long Branch Traction Power Substation		0.3	1.0	2.0			3.3
	Constant Tension Pulley & Insulator Replacements		0.1	0.1	0.1	0.1	0.1	0.4
	Propulsion Cable & Terminator Replacement Program		0.4	0.4	0.4	0.4	0.4	1.5
	Fiber Loop Installation (Graw to Long Branch)			1.2	1.2	0.7		3.1
	Branchport Interlocking Wire Replacement		0.4					0.4
	Electrical Service Upgrades at Key Locations		0.5	0.5	0.5	0.5	0.5	1.8
	SCADA Upgrades		0.2	0.2	0.2	0.2		0.8
	SMP Communication Upgrades		0.3	0.3	0.3	0.3	0.3	1.2
	Substation Roof Bushing Replacements including Arresters				0.6	0.6		1.2
	Traction & Signal Power Relay Upgrades		1.6	1.6	1.6	1.6		6.4
	Installation of Remote Terminal Communication Units (RTU) at All Interlocks		1.1	1.1	0.7			2.9

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
RAIL INFRASTRUCTURE	Rail Operations Work Equipment Upgrades	0.8	13.4	11.1	6.8	2.7		34.8
	MOW Work Equipment - Existing	0.8	2.0	2.0	2.0	2.0	2.0	8.8
	MOW Work Equipment - NEW		11.4	9.1	4.8	0.7	0.0	26.0
	Track Rehabilitation Program	21.9	32.8	33.8	33.2	34.2	37.0	155.7
	Track Undercutting and Ballast Cleaning; Rails, Ties, Turnouts & Road Crossings - Existing	21.9	18.0	18.0	18.0	18.0	18.0	93.9
	Track Undercutting and Ballast Cleaning; Rails, Ties, Turnouts & Road Crossings - NEW		14.8	15.8	15.2	16.2	19.0	61.8
	MEP SoGR Program	0.0	0.9	0.9	0.9	0.9	0.5	3.4
	Systemwide HVAC Upgrade		0.5	0.5	0.5	0.5	0.1	2.0
	Systemwide Fueling Facilities		0.4	0.4	0.4	0.4	0.4	1.4
	Vertical Transportation Renewal Program	0.0	5.0	9.5	9.5	9.5	9.5	33.5
	Renewal of all elevators and escalators in inventory		5.0	9.5	9.5	9.5	9.5	33.5
	Morrisville SOGR Program	0.0	1.0	0.0	0.0	0.0	0.0	1.1
	2 New Gators		0.3					0.3
	2 New Water Carts		0.3					0.3
	Improve NiceVision Cameras		0.4					0.4
	New Forklifts		0.04		0.04			0.1
	Bridge Protection SOGR Program	0.0	0.6	0.6	0.6	0.6	2.0	2.4
	Bridge Protection SOGR Program		0.6	0.6	0.6	0.6	2.0	2.4
	Undergrade Bridge Rehabilitation Program	6.6	12.6	12.6	12.6	12.6	12.6	56.9
	Undergrade Bridge Rehabilitation Program - Existing	6.6	10.0	10.0	10.0	10.0	10.0	46.6
	Undergrade Bridge Rehabilitation Program - NEW		2.6	2.6	2.6	2.6	2.6	10.3
	Overhead Bridge Rehabilitation Program	1.0	5.0	5.0	5.0	5.0	5.0	21.0
	Overhead Bridge Rehabilitation Program - Existing	1.0	1.3	1.3	1.3	1.3	1.3	6.0
	Overhead Bridge Rehabilitation Program - NEW		3.7	3.7	3.7	3.7	3.7	15.0
	Tie Deck Program	4.7	2.0	3.5	3.5	3.8	2.3	17.5
	Tie Deck Program - Existing	4.7	0.6	0.6	0.6	0.6	0.6	7.0
	Tie Deck Program - NEW		1.5	2.9	2.9	3.2	1.7	10.5

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
RAIL INFRASTRUCTURE	Bridge Inspection Program	3.9	3.8	4.8	4.8	5.0	4.0	22.1
	Bridge Inspection Program - Existing	3.9	2.8	2.8	2.8	2.8	2.8	15.1
	Bridge Inspection Program - NEW		1.0	2.0	2.0	2.2	1.2	7.1
	Culvert Inspection Program	0.0	1.7	1.5	1.5	1.5	1.5	6.2
	Culvert Inspection Program		1.7	1.5	1.5	1.5	1.5	6.2
	Retaining Wall Inspection Program	0.0	0.3	0.1	0.1	0.1	0.1	0.6
	Retaining Wall Inspection Program		0.3	0.1	0.1	0.1	0.1	0.6
	Bridge Painting Program	0.8	4.5	4.5	4.5	4.8	4.8	19.1
	Bridge Painting Program - Existing	0.8	2.0	2.0	2.0	2.0	2.0	8.8
	Bridge Painting Program - NEW		2.5	2.5	2.5	2.8	2.8	10.3
	ROW Reliability and Improvement Program	0.5	7.5	7.8	8.0	8.3	8.5	32.0
	ROW Reliability and Improvement Program - Existing	0.5	1.0	1.0	1.0	1.0	1.0	4.5
	ROW Reliability and Improvement Program - NEW		6.5	6.8	7.0	7.3	7.5	27.5
LIGHT RAIL	Hudson-Bergen Light Rail SOGR and Rehab Program	6.1	47.3	31.7	17.7	18.3	13.3	121.2
	HBLR Capital Asset Replacement - Existing	6.1	7.0	12.0	12.0	12.0	12.0	49.1
	HBLR Capital Asset Replacement - NEW		5.9	5.0				10.9
	Curve Replacement - 3 Locations		6.8	0.5				7.3
	SCADA - Infrastructure HBLR Phase 2		4.0	5.7	2.2	1.1		13.0
	Garfield Ave Extension		0.4					0.4
	Caven Point & Stations Security CCTV Camera Upgrades		4.8		1.0	4.0		9.8
	Backup Operations Control Center		6.3	5.6	1.3			13.2
	Camera Maintenance, Network Maintenance, Cybersecurity, Software Replacement		1.1	1.1	1.2	1.2	1.3	4.6
	Overhaul Elevators Systemwide		5.6	1.5	0.1			7.2
	LRV Safety Door Installation		1.8					1.8
	Master Controller Replacement		1.8					1.8
	HBLR External Vehicle Cameras		0.6					0.6
	Hudson-Bergen Light Rail Station Distributed Antenna Communications System		0.4	0.3				0.7

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
	Liberty View Drive		0.9					0.9
	Newark Light Rail SOGR and Rehab Program	2.2	36.0	22.9	16.8	14.8	13.4	92.6
	NLR Facilities - Existing	0.5	4.3	0.7	0.7	0.7	0.7	6.9
	NLR Facilities - NEW		0.7		0.3	0.3	0.3	1.4
	NLR Infrastructure (FY 13 and Beyond) - Existing	0.8	2.2	1.0	1.0	1.0	1.0	5.9
	NLR Infrastructure - NEW		2.9		0.5	0.5	0.5	3.9
	NLR Vehicles - Existing	0.7	2.1	0.6	0.6	0.6	0.6	4.6
	NLR Vehicles - NEW		2.1		0.4	0.4	0.4	2.9
	NLR Rail Car safety improvement - Safety Door Installation		0.5					0.5
	NLR Backup Power/Signal System		1.0	1.1				2.1
	NLR Switch Points		4.6	4.6				9.2
	Station Network Implementation		1.1	1.1				2.1
	Operations Control Center		1.6					1.6
	Backup Operations Control Center		0.8					0.8
	Tunnel Wi-Fi		1.1	2.0				3.1
	NLR State of Good Repair Phase II - Existing	0.2	2.5	6.0	9.0	9.0	7.7	26.7
LIGHT RAIL	River Line Rancoacas Creek Bridge Repairs	0.0	1.2	0.5				1.7
	NLR State of Good Repair Phase II - NEW		3.9	0.4				4.3
	Master Controller Replacement		0.8					0.8
	NLR External Vehicle Cameras		0.1	0.8				0.9
	NLR Track to Wayside Communication (TWC) Replacement		0.4	0.4				0.7
	NLR Right of Way Improvements		1.0	1.0	1.1			3.1
	NLR Drainage Improvements		0.4	0.6	1.0			2.0
	NLR Track Repairs & Replacements		0.8	2.3	2.3	2.3	2.3	7.6
	River LINE SOGR and Rehab Program	2.6	18.5	8.3	4.8	4.9	4.9	39.1
	River LINE Capital Asset Replacement - Existing	2.6	2.0	2.0	2.0	2.0	2.0	10.6
	River LINE Capital Asset Replacement - NEW		2.0	2.0	2.0	2.0	2.0	8.0
	Tie Replacement Program, Undercutting and Culvert Repair Program		1.4	2.5				3.9
	RiverLine External Vehicle Cameras		0.4					0.4
	Backbone Corporate Network Connection (Camden, Trenton, NEC, Penn)		3.0					3.0
	Station Network and Cabling Infrastructure		2.0	1.0	0.1			3.1
	Station Communication Cabinet Replacements		0.4					0.4
	Camera Maintenance, Network Maintenance, Cybersecurity & Software Replacement		0.7	0.8	0.8	0.8	0.9	3.1

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
LIGHT RAIL	Main Line Switch Replacement		0.5					0.5
	Culvert Repairs		0.5					0.5
	CLRC UPS		0.1					0.1
	CLRC HVAC Upgrades		0.3					0.3
	Gate Mechanism Replacements		1.8					1.8
	RiverLine Permanent Generators		1.5					1.5
	Station Security CCTV Camera Upgrades & Sustainment Initiative		0.9			0.1		1.0
	Kampack Siding - Roebling		1.0					1.0
BUS INFRASTRUCTURE	BUS SOGR & Rehab Program	3.3	17.3	17.3	17.3	17.3	17.3	72.5
	Bus Garage SOGR Program - Existing	3.0	2.3	2.2	2.1	2.1	2.1	11.8
	Bus Garage SOGR Program - NEW		6.7	6.8	6.9	6.9	6.9	27.3
	Passenger Facilities State of Good Repair Program - NEW		4.0	4.0	4.0	4.0	4.0	16.0
	Bus Portable Assets - Existing	0.3	1.0	1.0	1.0	1.0	1.0	4.3
	Bus Portable Assets - NEW		3.0	3.0	3.0	3.0	3.0	12.0
	Bus Radio System Maintenance Upgrade Program		0.3	0.3	0.3	0.3	0.3	1.2
PLANNING	TRANSIT Planning, Design & Development Program	7.7	52.5	52.5	52.5	52.5	52.5	217.7
	Planning - Existing	7.7	5.9	5.4	5.4	5.4	4.5	29.9
	Trans Hudson Planning	1.7	0.8	0.9				3.3
	ADA Stations Rehab Pilot: Orange Station		0.5					0.5
	Study and Dev Program	1.0	1.1	1.3	1.7	1.7	1.7	6.8
	Study and Dev - Transit-Friendly Studies	0.5	0.5	0.5	0.9	0.9	0.0	3.3
	Study and Dev - Park and Ride Planning - In House	0.4	0.3	0.3	0.3	0.3	0.3	1.4
	Study and Dev - Station Upgrade - In House	0.4	0.5	0.5	0.5	0.5	0.5	2.3
	Study and Dev - Transit Friendly Planning-In House	0.3	0.2	0.2	0.2	0.2	0.2	0.9
	Study and Dev - Rail Planning - In House	0.1	0.1	0.1	0.1	0.1	0.1	0.5
	Study and Dev - Bus Studies Program	0.8	0.8	0.5	0.5	0.5	0.5	3.1
	Study and Dev - Light Rail Planning - In House	0.2	0.1	0.1	0.1	0.1	0.1	0.6
	Study and Dev - Support Services NJTPA	0.1	0.0	0.0	0.0	0.0	0.0	0.2
	Study and Dev - Corridor Planning - In House	0.1	0.2	0.2	0.2	0.2	0.2	0.8
	Study and Dev - Transit Village Task Force	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Study and Dev - Ridership Demand Modeling	1.7	0.5	0.5	0.5	0.5	0.5	3.7
	Study and Dev - Survey Research	0.4	0.5	0.5	0.5	0.5	0.5	2.4

PROJECT CATEGORY	PROJECT	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	5 YEAR TOTAL
PLANNING	Planning - NEW		39.1	39.6	39.6	39.6	40.5	157.8
	Transit Innovation & Development Program		7.5	7.5	7.5	7.5	7.5	30.0
INFORMATION AND DIGITAL TECHNOLOGY	IT Upgrade Program		7.3	7.6	7.8	8.1	7.8	30.7
	Web Technology Upgrade Program		0.1	0.1	0.1	0.1	0.1	0.4
	CIDO Immediate Action		1.2	1.2	1.2	1.2	1.2	4.8
	Cyber Security		2.5	2.8	3.0	3.3	3.0	11.5
	Applications General Fund		0.5	0.5	0.5	0.5	0.5	2.0
	Passenger Communications Technology SOGR		0.4	0.4	0.4	0.4	0.4	1.6
	Fare Collection		1.6	1.6	1.6	1.6	1.6	6.4
	Rail Systems IT Upgrades		0.5	0.5	0.5	0.5	0.5	2.0
	Surface Transportation Systems IT Upgrades		0.5	0.5	0.5	0.5	0.5	2.0
ECMS	ECMS		1.0	1.0	1.0	1.0	1.0	4.0
	Enterprise Content Management System (ECMS)		1.0	1.0	1.0	1.0	1.0	4.0

Appendix A: Unconstrained Financial Summary

Table 4 - Capital Plan: Other Existing NJ TRANSIT Program Items Estimated Cash-flow Sheet

Appendix A Table 4: Capital Plan: Other Existing NJ TRANSIT Program Items Estimated Cash-flow Sheet

($ in Millions)

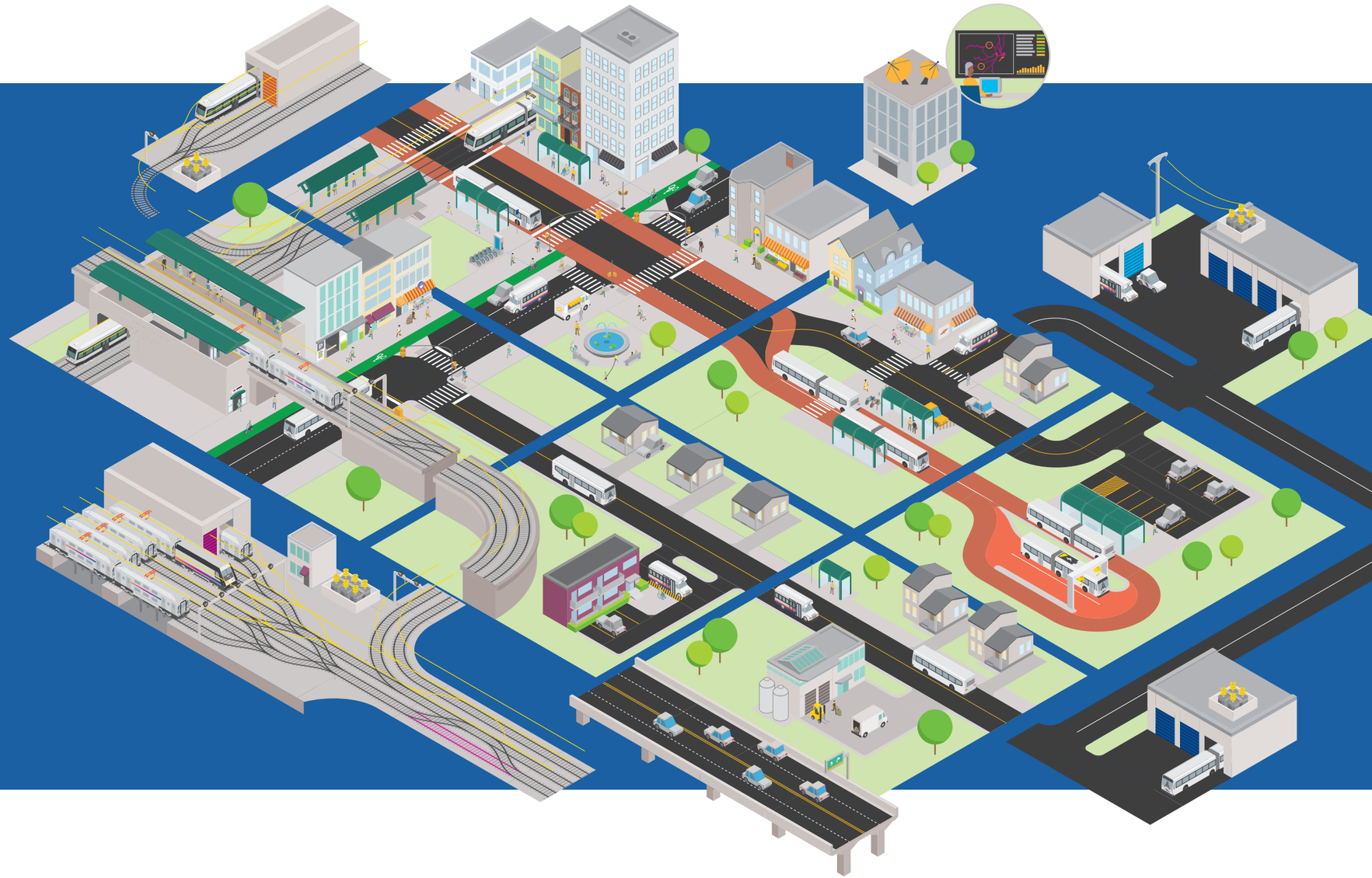
	FY2021	FY2022	FY2023	FY2024	FY2025	5 Year Total
Total of Ongoing Capital Projects (FUNDED PROGRAM)	858.82	1,103.88	1,042.91	1,000.41	925.57	4,931.59

	FY2021	FY2022	FY2023	FY2024	FY2025	5 Year Total
ACCESS LINK	0.3	1.3	2.2	1.2	0.0	5.00
Access Link Brokerage Model Assessment and Planning Study	0.0	0.3	1.5	1.2	0.0	3.00
BUS FLEET	1.2	6.8	11.1	1.7	2	22.36
BUS INFRASTRUCTURE	14.0	51.9	53.1	29.5	12.9	161.30
Bus Operations Control Center	4.0	5.0	5.0	0.0	0.0	14.04
Market Street Bus Garage Rehab	0.5	7.0	12.4	7.9	0.0	27.74
Newark Lake St Garage DEP Remediation Reimb	0.1	0.0	0.0	0.0	0.0	0.12
GOB Surface Parking Lot	0.2	12.4	13.7	2.6	6.1	34.99
CAPITAL LEASE/PRIIA	64.4	109.4	109.1	109.1	109.1	501.06
FIXED EXPENSES	504.7	458.0	455.0	549.6	547.0	2514.25
Commuter Ferry Vessel Power and Propulsion Retrofit	1.9	3.8	3.4	1.3	0.1	10.42
IT, INNOVATION & TRANSPORT NETWORK IMPROVEMENTS	51.0	109.3	165.4	140.8	125.8	592.27
LIGHT RAIL	3.2	17.2	10.7	1.8	1.6	34.50
Norfolk St Stuctural Repair (check) Add 4 light rail projects	0.0	1.8	0.0	0.0	0.0	1.83
NLR Track State of Good Repair Phase I	0.5	0.3	0.0	0.0	0.0	0.81
River LINE LRV Fire Suppression System	0.0	0.3	0.3	0.3	0.1	1.00
HBLRT Weehawken Tunnel Repairs	1.6	4.7	3.9	0.0	0.0	10.19
RAIL EXPANSIONS	0.1	7.5	4.7	0.3	0.3	12.70
RAIL FLEET	7.4	40.9	25.4	18.8	17.0	109.44
RAIL INFRASTRUCTURE	122.4	147.3	79.1	84.9	54.6	488.32
Capital Projects	7.6	50.2	21.4	32.0	28.6	139.76
Rail Operations Projects	114.8	97.1	57.7	52.9	26.0	348.56
REGIONAL TRANSIT PROJECTS	11.9	18.4	17.7	8.7	8.2	64.78

SANDY/PORTAL BRIDGE PROJECTS	78.3	136.1	109.5	54.1	47.6	425.59
SANDY - Signals and Communications Resilience	6.3	10.0	8.0	6.0	10.0	40.32
SANDY Dmg 02RINF 4 ET Bay Head Yard Substation Repair	2.9	15.0	7.2	0.0	0.0	25.08
SANDY Dmg 02RINF 4 ET Henderson St. Substation Repair	11.4	14.3	2.4	0.0	0.0	28.17
SANDY Dmg 02RINF 4 ET Hoboken Terminal House Power Repair	9.4	10.0	0.4	0.0	0.0	19.75
SANDY Dmg 02RINF 4 ME: Lower Signal: Lower Hack to Kearny	2.0	3.0	2.8	0.0	0.0	7.81
SANDY Dmg 02RINF 4 NJCL: Upper Signal	1.3	4.0	4.0	4.0	4.0	17.35
SANDY Dmg 04RHOB 4 Hoboken Yard-Signal Power Repair	0.6	2.2	3.4	3.4	3.4	12.88
SANDY Dmg 04RHOB 4 Hoboken Yard-Wayside Power-Repair	0.7	4.9	8.7	8.7	8.7	31.57
SANDY Dmg 05 HBLR 4 Traction Power/Station Dist Power	2.7	10.0	10.0	10.0	10.3	43.00
SANDY Hoboken Facilities Power Dist Systems Repairs-Insuranc	0.1	1.5	2.0	1.0	0.0	4.67
SANDY Replacement Mason/Building 9 Substation	19.7	10.9	11.9	0.2	0.0	42.61
SANDY Rsl 08MAS 4 ROC Unit Substation	4.2	3.3	0.8	0.0	0.0	8.30
SANDY Rsl 15RMMC 4 MMC Building Perimeter Flood Control	1.5	0.6	0.1	0.1	0.0	2.26

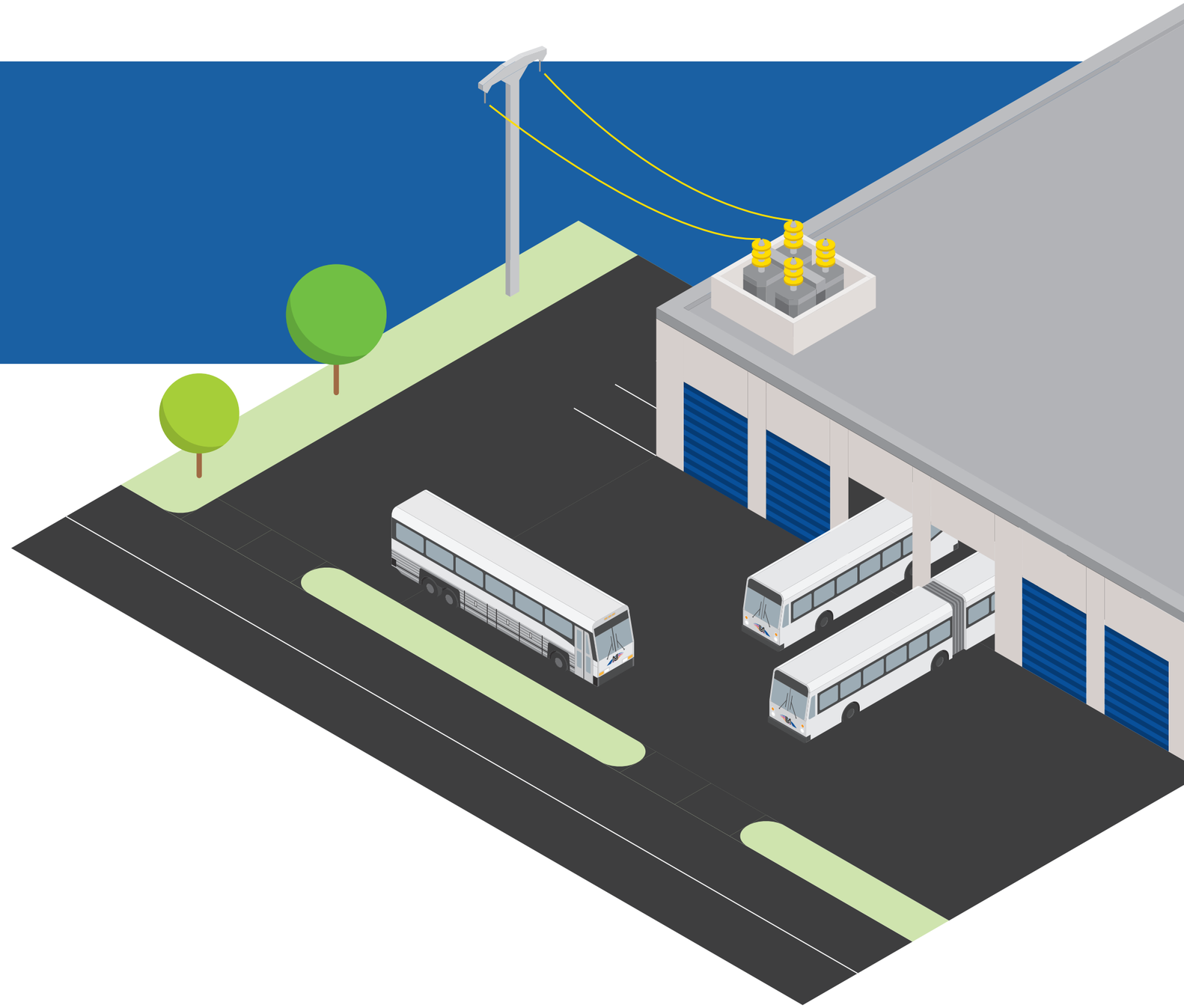
Appendix B

Capital Plan Project Sheets



NJ®

Bus Garages



PROJECT SHEET | NORTHERN BUS GARAGE (ZERO EMISSION BUS FLEET READY)

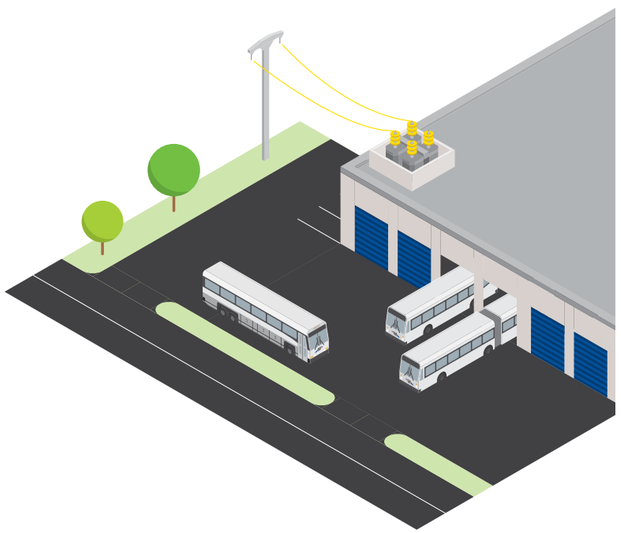
Description

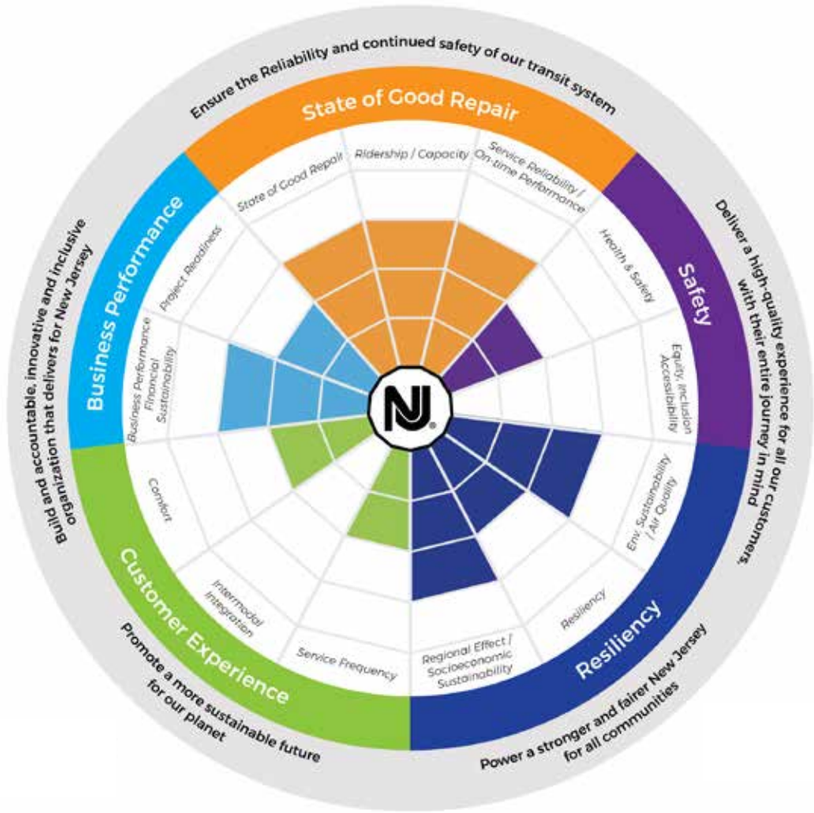
NJ TRANSIT operates 16 bus garages throughout the state which range in age from 22 to 120-years old. No major rehabilitation work has been performed at the garages since 1998. The existing garages are currently operating at or above their capacities. Rehabilitation of major garage systems, modernization of existing garages, or replacement of aging facilities is challenging since these activities would potentially result in the loss of capacity on bus lines while each garage is taken out of service for improvements.

The existing NJ TRANSIT bus garages are currently operating 28% over capacity. The Northern Bus Garage project would construct a new 400 to 500 bus garage which would increase the bus storage and maintenance capacity of the NJ TRANSIT Bus Network to match the current bus fleet size and allow for future service expansion. This increase in capacity would help NJ TRANSIT keep pace with anticipated bus ridership growth and provide additional capacity to absorb buses from other garages while they are rehabilitated, upgraded, or replaced. The new Northern Bus Garage could be LEED certified and constructed with solar panels on the roof, feature modern fleet diagnostics and maintenance equipment, and be 100% Zero Emission Bus ready. A new parking garage could be included at the site to provide access to a new bus park & ride facility.

EXISTING:
Overcrowded Bus Garages (Oradell lot shown)

PROPOSED:
New Garage Facility





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$536 Million**

** Excludes property acquisition costs (land secured by NJ TRANSIT)*

Value to Customers

- Expands bus fleet, increases bus availability, reduces depot delays

Value to State

- Increases return on investment for revenue vehicles owned by NJ TRANSIT
- New sustainable facilities reduce lifecycle maintenance costs and enable more efficient use of taxpayer funds

PROJECT SHEET NORTHERN BUS GARAGE (ZERO EMISSION BUS FLEET READY)

ESTIMATED TOTAL PROJECT COSTS

$536M

Regional Impact/Socioeconomic Sustainability
The new facility would relieve congestion on the garage system and enable additional fleet capacity to support expanded service

Service Reliability
Bus deployment across the system would be improved, reducing congestion on existing lines

Ridership/Capacity
Additional garage capacity would allow NJ TRANSIT to keep pace with current and future ridership growth

State of Good Repair
A modern garage with solar panels and new maintenance equipment would reduce average age of bus fleet to industry norms

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The new garage would **increase bus storage, maintenance capacity,** and **meet current and future ridership** of the NJ TRANSIT bus network.*

PROJECT SHEET | SECOND NORTHERN BUS GARAGE (ZERO EMISSION BUS FLEET READY)

Description

NJ TRANSIT operates 16 bus garages throughout the state which range in age from 20 to 120-years old. No major rehabilitation work has been performed at the garages since 1998. The existing garages are currently operating at or above their capacities. Rehabilitation of major garage systems, modernization of existing garages, or replacement of aging facilities is challenging since these activities would potentially result in the loss of capacity on bus lines while each garage is taken out of service for improvements.

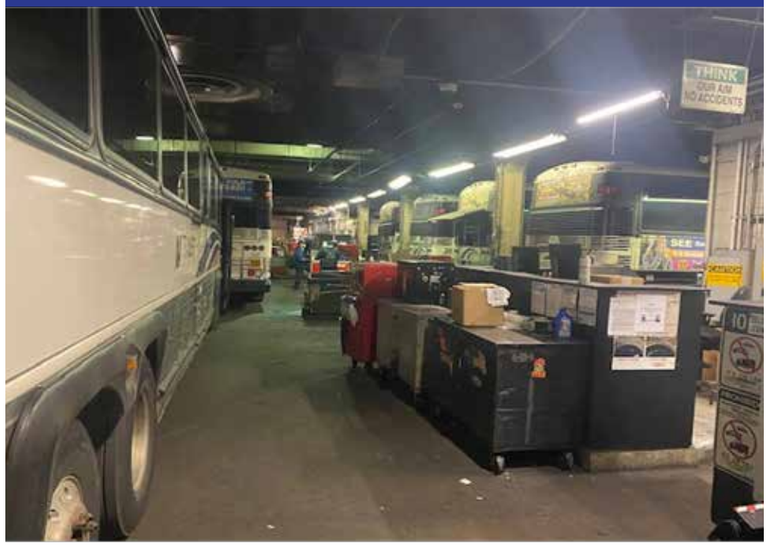
The existing NJ TRANSIT bus garages are currently operating 28% over capacity. If funded, the addition of a Second New Northern Bus Garage would augment the existing new North Garage Project to further increase the bus storage and maintenance capacity of the NJ TRANSIT bus network. This would enable NJ TRANSIT to better accommodate the current bus fleet size, allow for future service expansion, and accommodate a potentially larger zero emission fleet. This increase in capacity would help NJ TRANSIT keep pace with anticipated bus ridership growth and provide additional capacity to absorb buses from other garages while they are rehabilitated, upgraded, or replaced. The Second New Northern Bus Garage could be LEED certified and constructed with solar panels on the roof, feature modern fleet diagnostics and maintenance equipment, and be 100% Zero Emission Vehicle (ZEV) ready.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

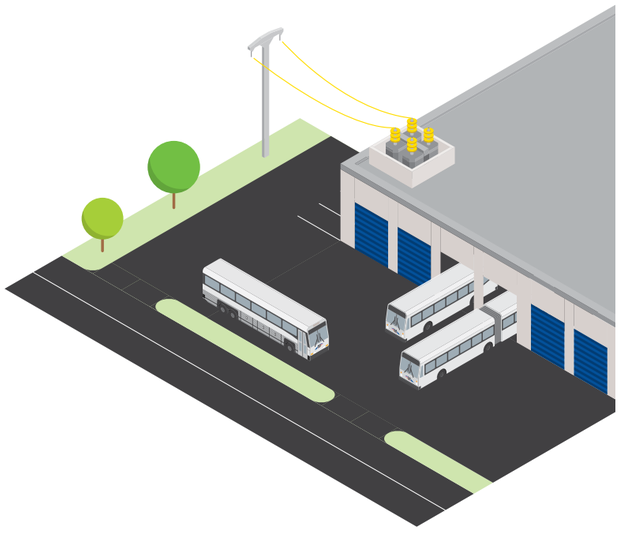
***$392 Million**

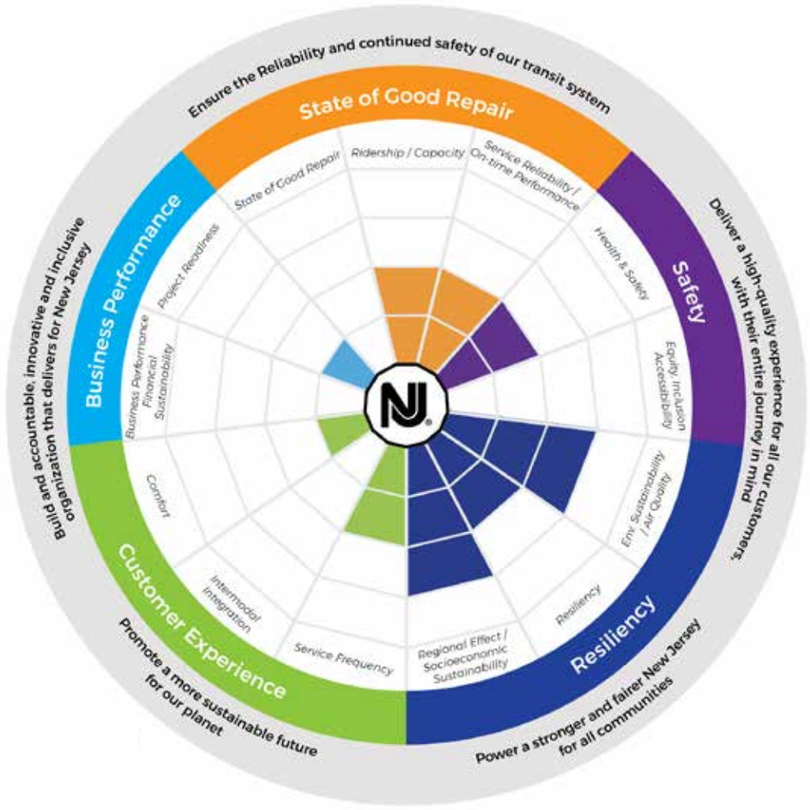
**Estimate based upon concept design*

EXISTING:
Overcrowded Bus Garages (Oradell lot shown)



PROPOSED:
New Garage Facility





Value to Customers

- Expands bus fleet, increases bus availability, reduces depot delays

Value to State

- Increases return on investment for revenue vehicles owned by NJ TRANSIT
- New sustainable facilities reduce lifecycle maintenance costs and enable more efficient use of taxpayer funds

PROJECT SHEET SECOND NORTHERN BUS GARAGE (ZERO EMISSION BUS FLEET READY)

ESTIMATED TOTAL PROJECT COSTS

$392M

Environmental Sustainability/Air Quality
The garage would support the rollout of the zero emission buses

Service Reliability
Reducing the overflow of buses being serviced at other garages would increase on-time performance and reduce delays due to vehicle maintenance issues

Ridership/Capacity
Increased capacity to service more buses would accommodate projected future ridership growth

Regional Impact/Socioeconomic Sustainability
A new garage would keep pace with growing ridership demand without overwhelming operations and maintenance at existing garages

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The addition of a new garage would **increase bus maintenance and storage capacity** to match current bus fleet size and **allow for future service expansion**.*

PROJECT SHEET | BUS GARAGE MODERNIZATION PROGRAM (ZERO EMISSION BUS FLEET READY)

Description

NJ TRANSIT operates 16 bus garages throughout the state with a fleet of over 2,300 buses. NJ TRANSIT is embarking on an ambitious Modernization Program to provide a world class electric bus fleet that would increase efficiency, improve reliability, reduce the environmental footprint, and cut operating costs throughout the fleet.

The first phase of the project will convert five NJ TRANSIT bus garages for zero emission vehicle operations. These five garages (Wayne, Hilton, Greenville, Hamilton, and Newton Avenue) have been selected for the first phase of electrification due to their limited range routes, level of service provided, and impact on ridership capacity. Hilton and Greenville garages serve the Jersey City and Newark areas; the Hamilton garage provides service to the Trenton area, the Newton garage serves the greater Camden area, and the Wayne garage serves the greater Passaic and Hudson County areas. To be functionally equivalent to these five garages, the remaining 11 bus garages will be modernized in later phases to support implementation of NJ TRANSIT's Zero Emission Bus program.

To be functionally equivalent to the new garages, the remaining 11 garages require a significant modernization in subsequent project phases 2 and 3 to advance NJ TRANSIT into the future for Zero Emission Bus (ZEB) program implementation to comply with state legislative mandate. Implementation of this project will comply with the state legislative mandates. These upgrades include charging stations, electrical service upgrades, and other related equipment.

Sustainability

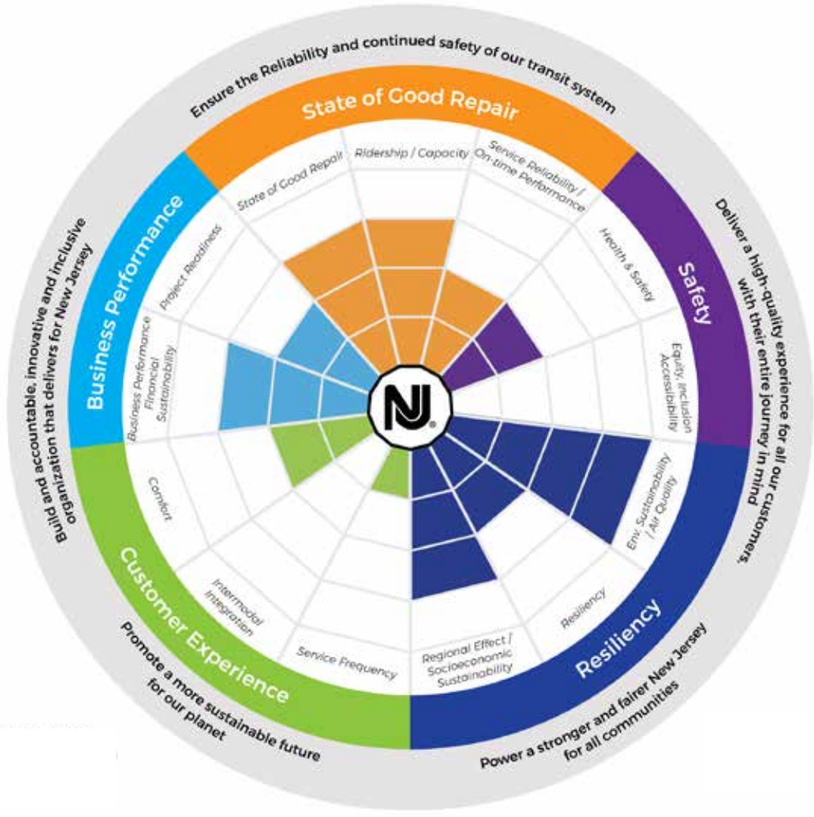
The Bus Garage Modernization program will coincide with the State of New Jersey's sustainability vision supporting the reduction of greenhouse gases, contributing to the reduction of air pollutants from diesel emissions.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$1.144 Billion

EXISTING:
Garage Equipment in Use Beyond Service Life

PROPOSED:
Modernized Garage Facilities



Value to Customers

- Increases reliability in bus schedule
- Increases safety through modernized communication

Value to State

- Lowers operating costs hence more efficient use of public funds
- Reduces injuries from component replacement work
- Increases return on investment for revenue vehicles owned by NJ TRANSIT

PROJECT SHEET | BUS GARAGE MODERNIZATION PROGRAM (ZERO EMISSION BUS FLEET READY)

Bus Garage Modernization

Bus Garage Moderization
Newton and Hilton Zero Emission Bus Deployments

Replaced Bus Garage

New Garage

NJTRANSIT The Way To Go.

PROJECT SHEET BUS GARAGE MODERNIZATION PROGRAM (ZERO EMISSION BUS FLEET READY)

ESTIMATED TOTAL PROJECT COSTS

$1.144B

Business Performance/Financial Sustainability
Servicing a zero emission fleet with new equipment would minimize operations and maintenance costs and increase efficiency

Regional Impact/Socioeconomic Sustainability
Modernizing all sixteen garages would positively impact the entire NJ TRANSIT bus fleet and system operations

STRATEGIC GOALS MET

Promote a more sustainable future for our planet

Ensure the reliability and continued safety of our transit system

Environmental Sustainability/Air Quality
Servicing a zero emission bus fleet would significantly reduce emissions and improve air quality across the state

State of Good Repair
Four garages would be planned for full re-construction and the other twelve garages would be planned for a full modernization

A cost-effective, modern, and state-of-the-art bus garage infrastructure *would support zero emission bus fleet rollout.*

PROJECT SHEET | BUS GARAGE REPLACEMENT PROGRAM (ZERO EMISSION BUS FLEET READY)

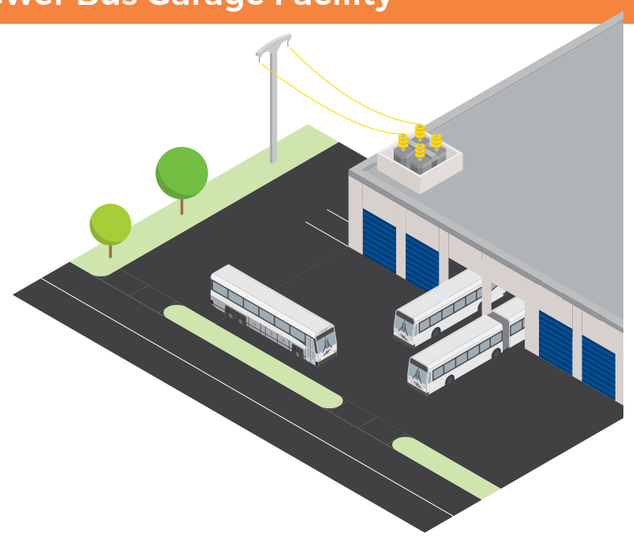
Description

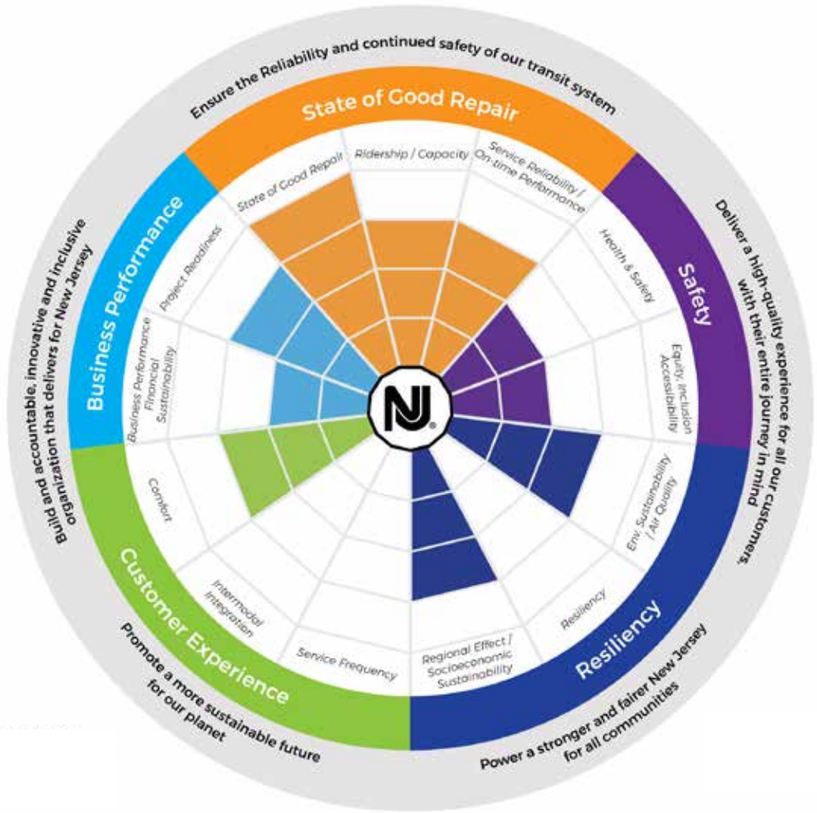
NJ TRANSIT operates 16 bus garages throughout the state. The four oldest (Big Tree, Fairview, Market Street, and Oradell) range from 60 to 120 years old. No major rehabilitation work has been performed at the garages since 1998. Market Street is currently slated to receive basic work to maintain its serviceability, but its configuration and size prevent it from accommodating new, larger buses and electric bus fleet upgrades. Each of these garages is located within urban areas which makes expansion challenging. Currently, these garages are operating at or above existing storage and maintenance capacity and will not be able to cope with anticipated ridership growth and anticipated bus fleet changes such as an increased number of articulated buses and the implementation of zero emission fleet.

If funded, the Bus Garage Replacement Program would replace the four oldest bus garages with state-of-the-art facilities that are zero emission ready, capable of storing and maintaining existing buses, new 45-foot buses, 60-foot articulated buses, and new electric buses. The new garages could be constructed with solar panels on the roofs, modern fleet diagnostics, and maintenance equipment. The size of these new facilities could accommodate anticipated ridership growth. Where feasible, new garages could be constructed within the footprint of existing facilities to reduce property acquisition costs. The new garages could be zero emission fleet ready and LEED certified.

EXISTING:
Market Street Garage (built in 1903)

PROPOSED:
Newer Bus Garage Facility





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$609 Million**

**Estimate based upon concept design*

Value to Customers

- Increases bus availability and reduces depot delays providing more frequent and reliable service
- Improves bus on-time performance
- Improves state of good repair of bus fleet
- Improves cleanliness and hygiene of bus fleet

Value to State

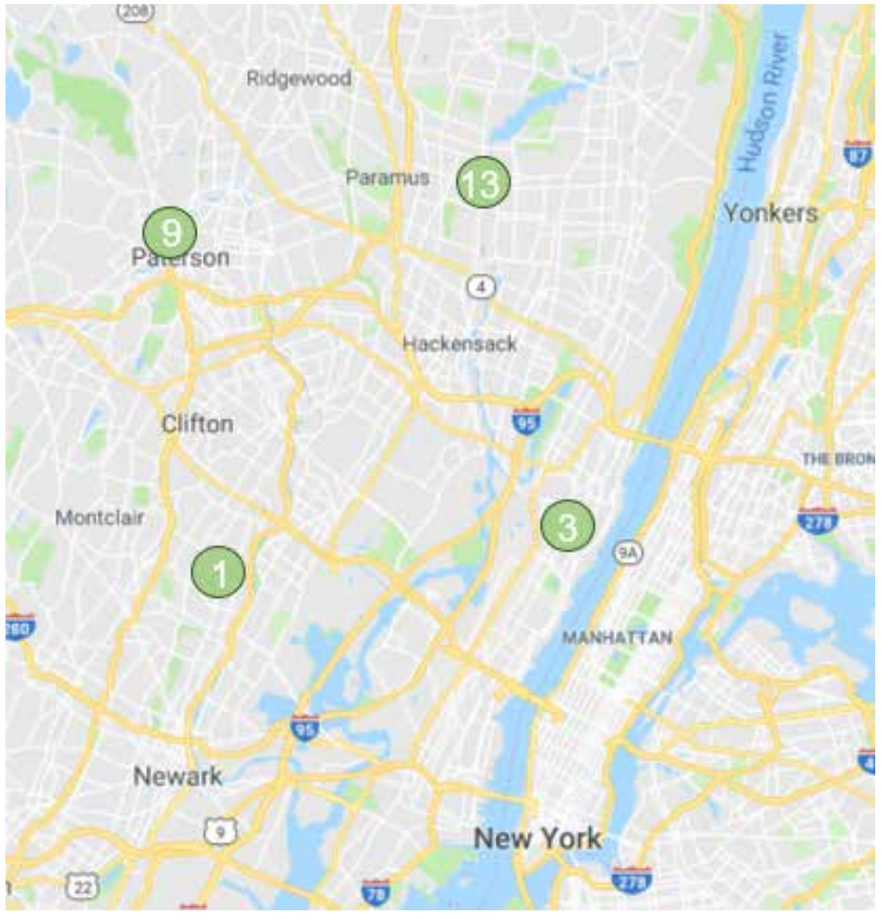
- Increases return on investment for revenue vehicles
- Reduces lifecycle maintenance costs and results in more efficient use of taxpayer funds through implementation of new sustainable facilities

PROJECT SHEET | BUS GARAGE REPLACEMENT PROGRAM (ZERO EMISSION BUS FLEET READY)

Market Street Garage (Built 1903)

Oradell Garage (Built 1960)

Existing Bus Garage Locations



Market Street Garage (Built 1903)

Oradell Garage (Built 1960)

Number	Garage Name	Age	New Building SQFT	New Parking SQFT	Percent Larger
	Big Tree	*111*	*57,000*	*73,000*	20%
3	*Fairview*	*74*	*95,000*	*75,000*	126%
9	*Market Street*	*116*	*120,000*	*55,000*	14%
	Oradell	*59*	*150,000*	*120,000*	83%

PROJECT SHEET BUS GARAGE REPLACEMENT PROGRAM (ZERO EMISSION BUS FLEET READY)

ESTIMATED TOTAL PROJECT COSTS

$609M

Safety
The new garages would enhance the safety of garage operations and maintenance of buses

Regional Impact/Socioeconomic Sustainability
New garages would reduce delays throughout NJ TRANSIT's bus network

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Replacing the oldest garage would improve state of good repair, improve cleaning capacity, and reduce equipment failure rates

Business Performance/Financial Sustainability
Reduced garage congestion, energy consumption, and maintenance outages would support expanded bus fleet and increased revenue trips

*The new garages would **reduce depot delays** and **accommodate an expanded bus fleet** to **better meet the needs of customers**.*

Bus Fleet

PROJECT SHEET | BUS FLEET ELECTRIFICATION IMPLEMENTATION PROGRAM

Description

The NJ TRANSIT bus system provides state-wide mass transit accessibility from many locations throughout the state. The existing bus fleet consists of various bus types that all run on diesel fuel. When funded, replacement of NJ TRANSIT bus fleet with new zero emission technology would reduce the carbon footprint of NJ TRANSIT, reduce emissions in urban areas, while providing the same high-level service to New Jersey communities.

NJ TRANSIT has a goal of converting the entire bus fleet to Zero Emission Vehicles (ZEV) by 2040 to comply with state legislative mandate. In the first phase of this conversion, NJ TRANSIT is proposing to convert 2 to 3% of the NJ TRANSIT bus fleet to ZEV. A successful ZEV implementation requires infrastructure upgrades at each garage where ZEVs will be operated. These upgrades include charging stations, electrical service upgrades, and other related equipment. This project aims to convert five NJ TRANSIT bus garages for ZEV operations. These five garages (Wayne, Hilton, Greenville, Hamilton, and Newton Avenue) have been selected for the first phase of electrification due to their limited range routes, level of service provided, and greatest impact to ridership capacity. Hilton and Greenville garages service the Jersey City and Newark areas, the Hamilton garage provides service to the Trenton area, the Newton garage services the greater Camden area, and the Wayne garage serves the greater Passaic and Hudson County areas.

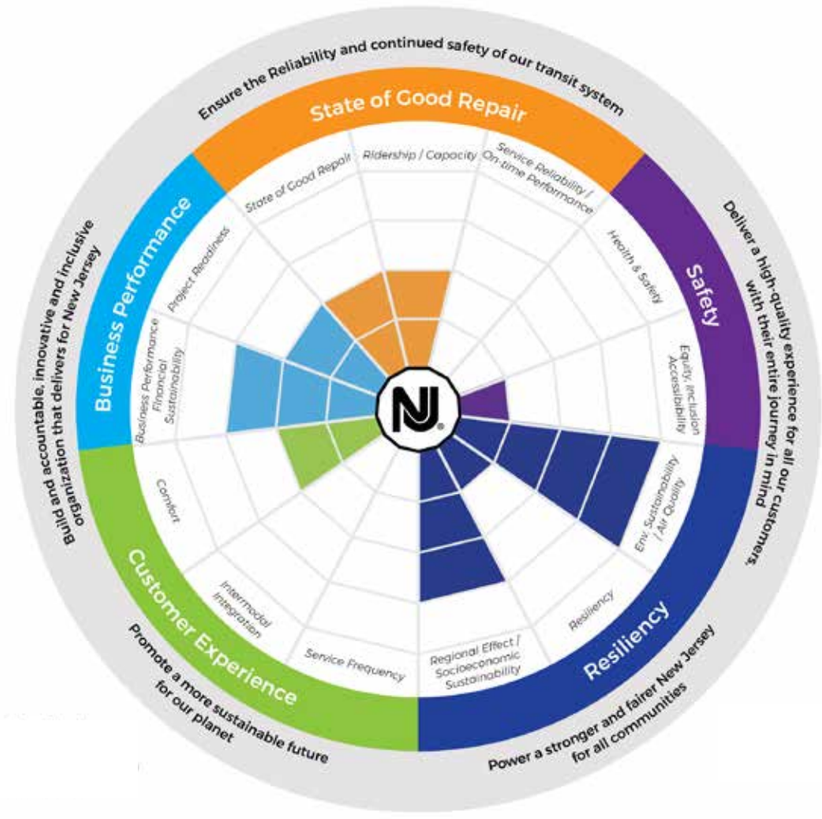
If funded, the Phase 1 conversions would accommodate the conversion of 68 diesel transit buses (40-foot buses) with 40-foot ZEVs and add 11 articulated buses (60-foot ZEVs). An additional 21 articulated transit buses (60-foot ZEVs) would be distributed at a new northern garage location.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$311 Million

EXISTING:
Diesel Bus Fleet

PROPOSED:
Zero Emission Bus Fleet



Value to Customers

- Improves riding conditions by providing a quieter ride
- Reduces personal carbon footprint for passengers

Value to State

- Creates a more efficient and environmentally sustainable transit network
- Lowers operating costs and stability due to decoupling from diesel fuel price fluctuations

PROJECT SHEET BUS FLEET ELECTRIFICATION IMPLEMENTATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$311M

Regional Impact/Socioeconomic Sustainability
Converting four garages to zero emission bus operations would positively impact bus operations in the Jersey City, Newark, Camden, and Trenton areas

Comfort
The new zero emission buses would offer customers a more comfortable and quieter riding experience

Environmental Sustainability/Air Quality
Zero emissions buses would reduce NJ TRANSIT's overall carbon footprint and reduce emission in urban areas

Business Performance/Financial Sustainability
Converting to zero emission buses and upgrading garages to facilitate their operation would reduce energy and maintenance costs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Promote a more sustainable future for our planet

Implementing a zero emission bus fleet would ***reduce emissions and reliance on diesel fuel*** *as well as* ***positively impact customer comfort***.

PROJECT SHEET | ZERO EMISSIONS BUS SYSTEM DESIGN AND INVESTMENT PLANNING STUDY

Description

The decarbonization of the transportation sector through electrification is one of the seven key strategies outlined in the 2020 Energy Master Plan intended to drive the State's goal of 100% clean energy by 2050. Governor Phil Murphy signed bill [S2252/ A4819] or law P.L.2019, c.362. (C.48:25-1 to 48:25-11) that set ambitious goals to increase electric vehicles and charging infrastructure in the state and requires that NJ TRANSIT must purchase 100% zero emissions buses by 2032. To successfully transition to zero emissions buses, NJ TRANSIT must lead the industry by establishing standards and practices to field a fully zero emissions bus fleet on a scale which has never been attempted on a fleet of over 2,300 buses.

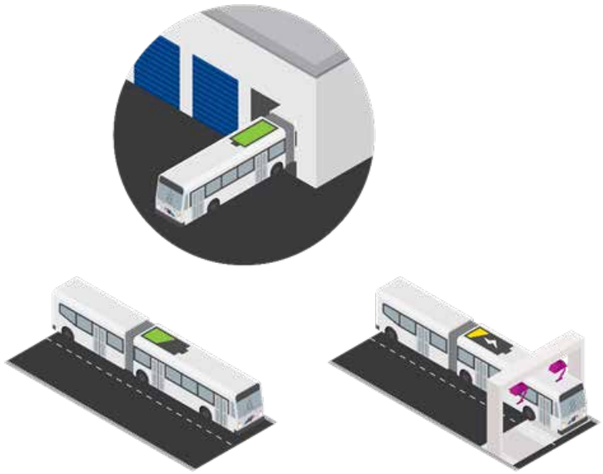
This project will establish best practices and standardization for equipment and operational practices, as well as develop garage-by-garage transition plans and investment plans to achieve a zero emissions fleet. Key outcomes include:

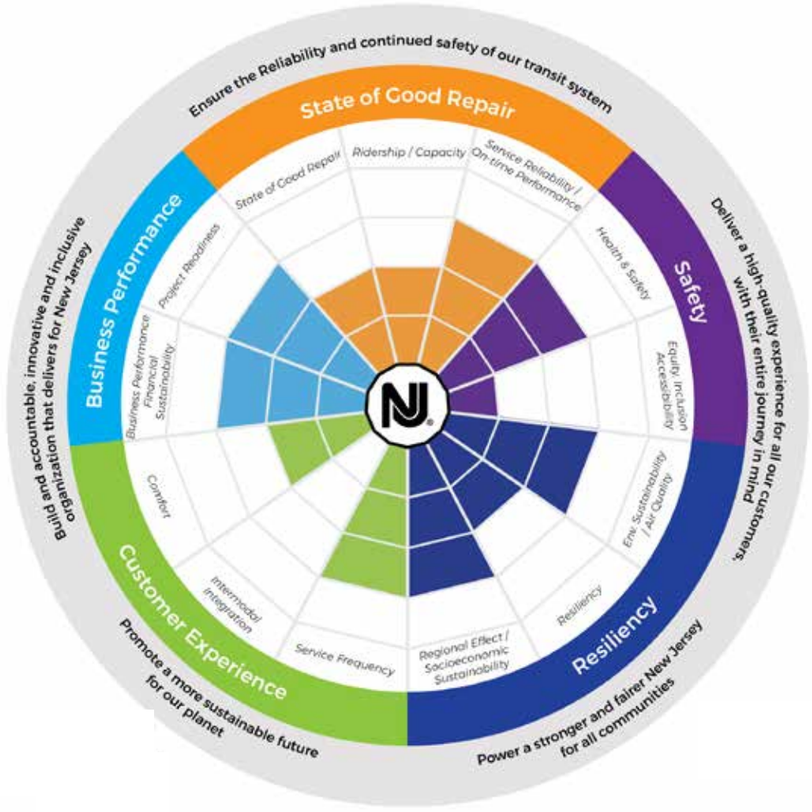
- NJ TRANSIT specific practices, standards and specifications for zero emissions fleets, equipment, technology, and training based on worldwide best practices.
- Conceptual designs, standard drawings, and layouts for zero emissions infrastructure inside 17 NJ TRANSIT garages.
- A detailed 500 Bus Fleet deployment plan creating the framework for NJ TRANSIT cost, schedule and plan the roll out of its first major wave of zero emissions buses.
- Scenario planning and analysis to future proof deployment plans, infrastructure investments, technology investments and training activities to ensure the future bus system is designed to meet the needs of the State and our Customers.
- Transition plan and roadmap to a zero emissions fleet detailing the sequence of investments, buses transitioned to zero emissions and treatments to routes necessary to achieve a fully zero emissions fleet by 2040 to be incorporated in the 2025-2030 Capital Plan and future Capital Plans.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$9.5 Million

PROPOSED:
Zero Emission Bus Infrastructure





Value to State

- Planning and cost effective engineering activities that swiftly implement zero emissions buses systemwide.
- Focus on worldwide best practices to establish standards, specifications, and practices that delivers to New Jersey a zero emissions world class bus fleet.
- Investment planning activities to plan the most cost effective approach to achieve a zero emissions fleet

Value to Customers

- Transition planning that focuses on ensuring reliability and service quality of our bus network with newer low maintenance zero emissions buses.
- Investment strategies that deliver a customer focused zero emissions fleet that is cleaner and healthier for customers and their communities

PROJECT SHEET ZERO EMISSIONS BUS SYSTEM DESIGN AND INVESTMENT PLANNING STUDY

ESTIMATED TOTAL PROJECT COSTS

$9.5M

Business Performance/Financial Sustainability
Best practices for zero emission bus operations will enhance business performance goals

Regional Effect/Socioeconomic Sustainability
Enhanced operations will take place at all garages across the state

Service Quality/Frequency
Enhanced bus operations and best practices will support better service for customers

Environmental Sustainability/Air Quality
Zero emission buses support healthier air for the community's the buses serve

STRATEGIC GOALS MET

Ensure the reliability and continued safety of our transit system

Promote a more sustainable future for our planet

Establish best practices *for equipment and* ***operational practices*** *and develop* ***garage by garage transition plans***

PROJECT SHEET | BUS FLEET REPLACEMENT PROGRAM

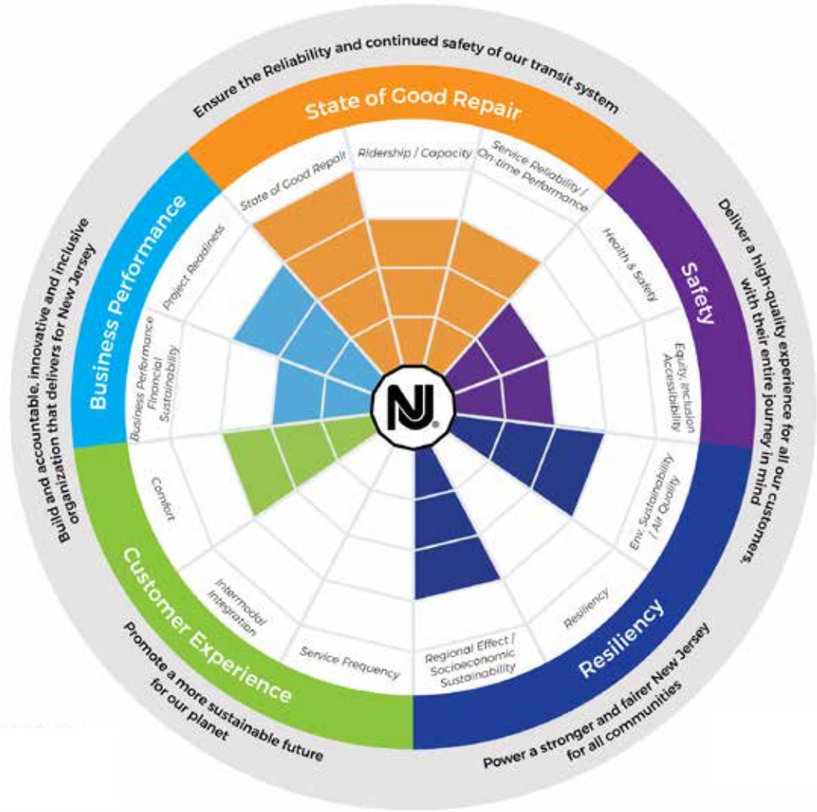
Description

The NJ TRANSIT bus fleet consists of over 2,300 buses which are distributed amongst 16 NJ TRANSIT bus garages across the state. The average age of buses in the NJ TRANSIT bus fleet is 13-years, while the anticipated service life for a typical bus is 12-years. As the buses have advanced in age, maintenance expenses have begun to escalate due to the increased frequency of component failure. These maintenance challenges result in significant depot delays which in turn adversely effect on-time performance. Customer experience is also affected by the age of the buses. Since the same buses typically follow the same route every day, some customers only interface with buses approaching 20-years in age.

If funded, the goal of the bus fleet replacement program would be to replace buses, scheduled in order of age, until all buses within the NJ TRANSIT fleet are operating within their anticipated service life and the average age of the fleet has decreased significantly. Most existing 40-foot NABI buses in the north and central operating regions would be replaced with new 60-foot articulating buses to help keep pace with ridership growth. This would be the last in a series of procurements of diesel buses until garages are ready for battery electric buses.

EXISTING:
NJ TRANSIT Bus

PROPOSED:
New Updated Fleet



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$4.475 Billion**

**Cost to reduce fleet age and increase onboard capacity by 2026*

Value to Customers

- Increases on-time performance, safety, and service reliability

Value to State

- Lowers operating expenses to enable more efficient use of public funds
- Reduces potential injuries associated with increased on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET BUS FLEET REPLACEMENT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

***$4.475B**

** COST TO REDUCED FLEET AGE AND INCREASE ONBOARD CAPACITY BY 2026; COST TO FULLY ELECTRIFY FLEET BY 2040*

Comfort
New buses would be more comfortable and equipped with modern amenities to enhance customer comfort

Service Reliability
New buses would experience fewer service failures and disruptions leading to improved reliability and on-time performance

Regional Impact/Socioeconomic Sustainability
Addition of new buses would keep the bus network operating smoothly and on-time

State of Good Repair
Adding new buses to the fleet would reduce the overall average age of the fleet

STRATEGIC GOALS MET

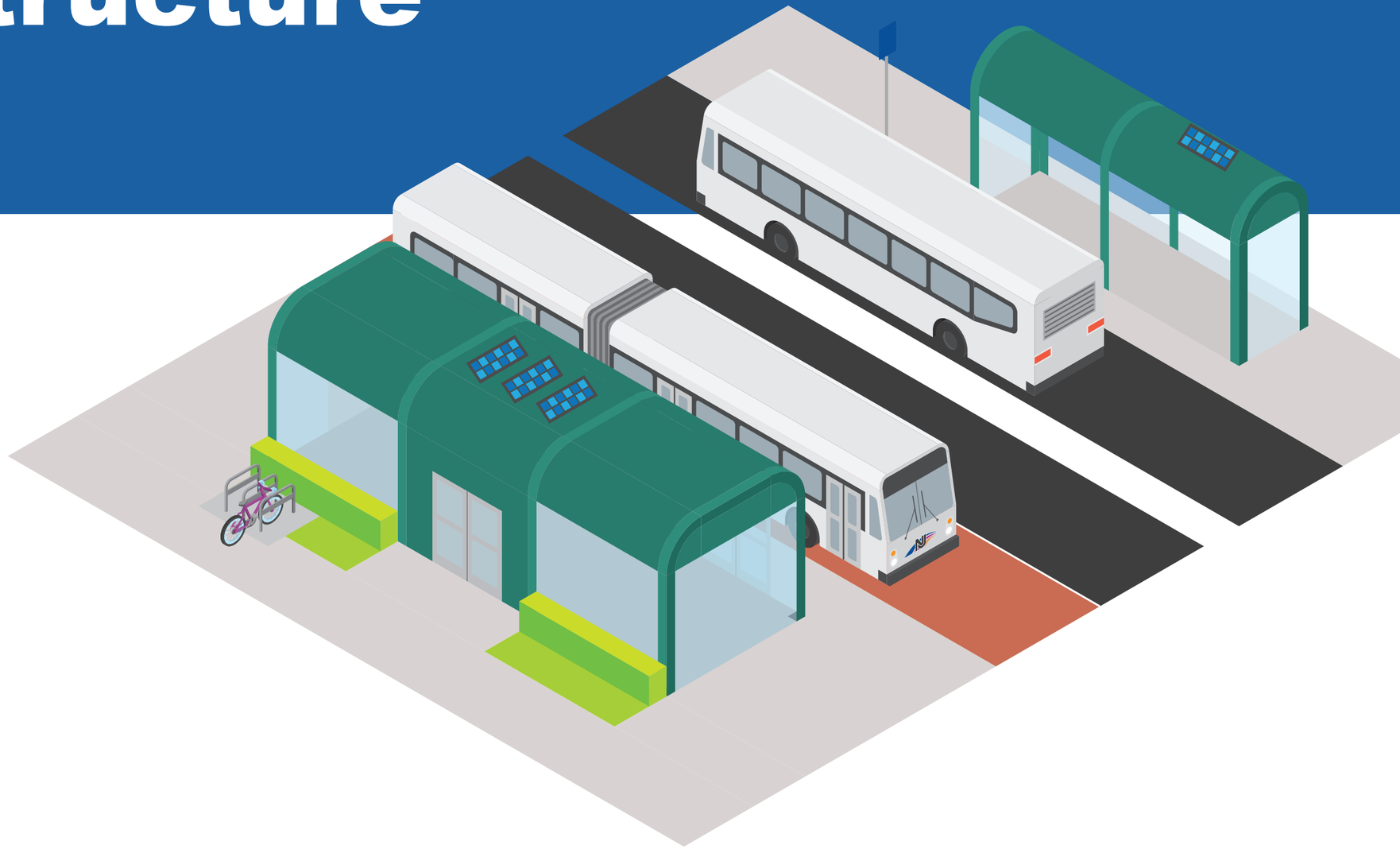
Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Adding new buses to the fleet would ***impact the entire network*** *and* ***greatly enhance customer experience***, ***reliability*** *and* ***on-time performance***.

Appendix B Capital Plan Project Sheets

Bus Infrastructure



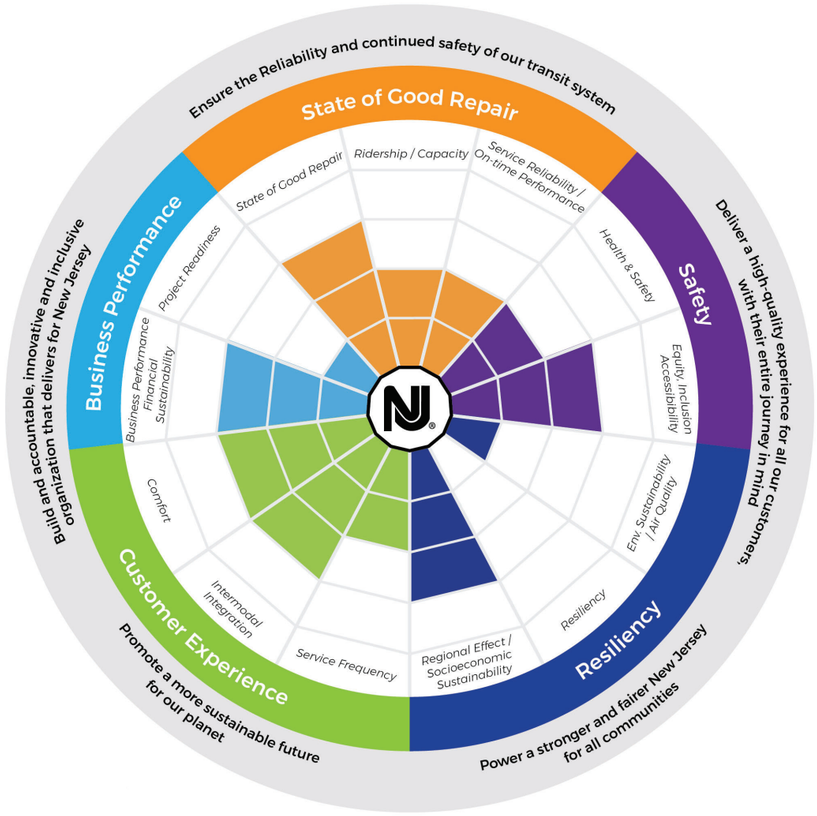
PROJECT SHEET | WALTER RAND TRANSPORTATION CENTER REDEVELOPMENT

Description

The Walter Rand Transportation Center (WRTC), the main intermodal transportation facility for Camden, is envisioned to be replaced and expanded to accommodate growth throughout Camden County.

If funded, this project would go through a design process to ultimately replace the existing facility with an expanded multi-purpose transit center that will provide an improved link in South Jersey Transportation. The new center would better accommodate the 26 bus lines that service the facility; provide improved intermodal connectivity with the PATCO Speedline subway and the River LINE light rail; support intercity independent bus services; and provide additional parking, administrative offices, and value capture retail opportunities to the adjacent growing educational and healthcare corridor. It would also provide an opportunity for integration with battery electric buses

EXISTING:
Walter Rand Transportation Center



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$275 Million**

**Estimate based upon concept design*

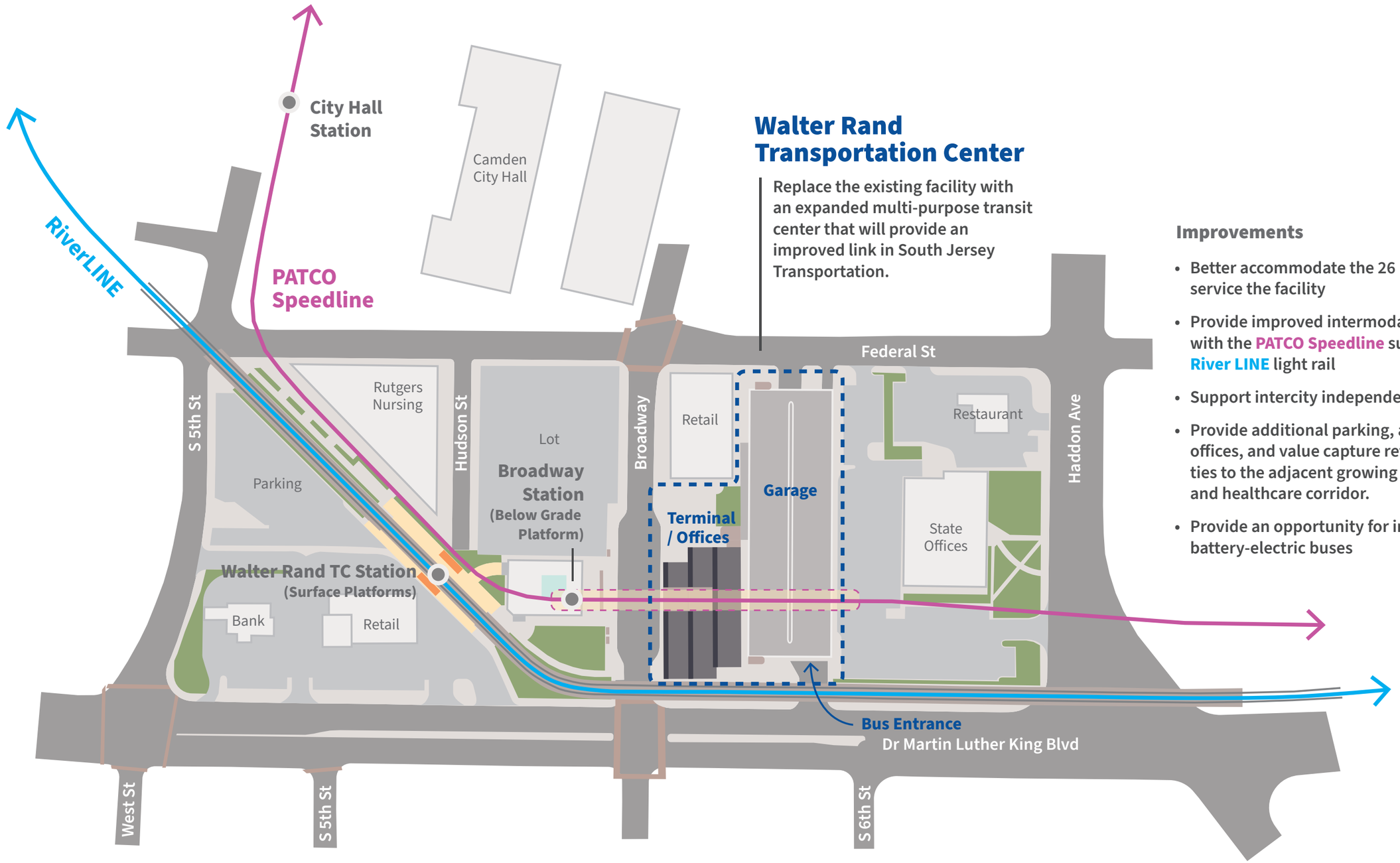
Value to Customers

- Improves intermodal connections in Camden resulting from a rebuilt and expanded bus facility
- Enhances experience for transit riders

Value to State

- Supports transit-oriented development in Camden with a rebuilt and expanded transit facility
- Increases efficiency with a state-of-the-art facility
- Provides connectivity to Camden's medical, educational and industrial development areas.

PROJECT SHEET | WALTER RAND TRANSPORTATION CENTER REDEVELOPMENT



Improvements

- Better accommodate the 26 bus lines that service the facility
- Provide improved intermodal connectivity with the **PATCO Speedline** subway and the **River LINE** light rail
- Support intercity independent bus services
- Provide additional parking, administrative offices, and value capture retail opportunities to the adjacent growing educational and healthcare corridor.
- Provide an opportunity for integration with battery-electric buses

PROJECT SHEET WALTER RAND TRANSPORTATION CENTER REDEVELOPMENT

ESTIMATED TOTAL PROJECT COSTS

$275M

Business Performance/Financial Sustainability
New terminal would serve as an anchor for transit-oriented development or facilitate value capture opportunities

Regional Impact/Socioeconomic Sustainability
New terminal would improve connections across modes and enhance connectivity to local institutions and destinations

Intermodal Integration
The expanded terminal would better connect South Jersey rail and bus service, eliminating a missing link

State of Good Repair
A completely rebuilt and state-of-the-art facility would replace an aged, undersized, and maintenance intensive facility

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities in the region

*A new **expanded, multi-purpose transit center** would **improve connectivity** and **create better linkages for** South Jersey Transit.*

PROJECT SHEET | NORTH BERGEN PARK & RIDE PARKING GARAGE

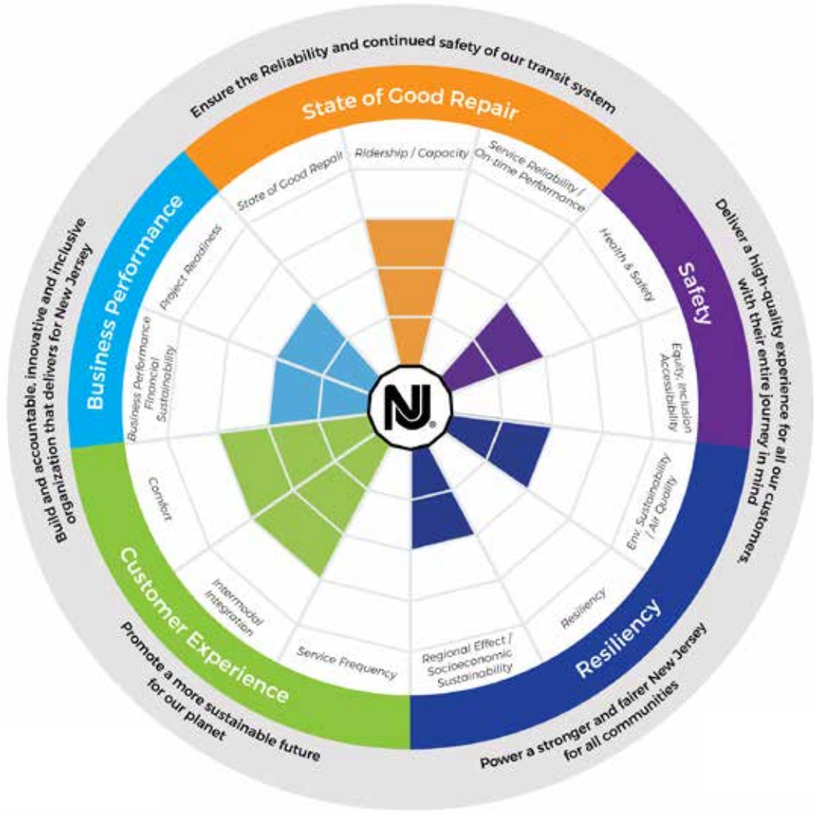
Description

NJ TRANSIT operates 14 park & ride facilities throughout the state providing parking for approximately 8,800 vehicles access to 25 NJ TRANSIT bus lines. The North Bergen Park & Ride is the largest park & ride facility in the NJ TRANSIT bus system providing 1,500 parking spaces for the NJ TRANSIT bus line that connects North Bergen Park and Ride directly to the Port Authority Bus Terminal in New York City. The parking lots at North Bergen Park & Ride typically reach capacity by the mid-morning travel peak, which inhibits additional customers from utilizing the bus line.

If funded, this project would feature construction of a new parking garage on an existing portion of the park & ride property, potentially creating an additional 2,000-spaces at the facility. The new parking garage could more than double the operational capacity of the existing facility while also generating parking revenue and could be constructed with solar panels on the roof to offset maintenance costs at the site.

EXISTING:
North Bergen Park & Ride Lots

PROPOSED:
New Parking Garage



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$125 Million**

**Estimate based upon concept design*

Value to Customers

- Allows additional customers to access the NJ TRANSIT 320 bus line due to additional parking spaces

Value to State

- Increases return on investment due to increased ridership on 320 Bus Line
- New sustainable facility reduces lifecycle maintenance costs and results in more efficient use of taxpayer funds

PROJECT SHEET NORTH BERGEN PARK & RIDE PARKING GARAGE

ESTIMATED TOTAL PROJECT COSTS

$125M

Intermodal Integration
A new parking garage would allow for better integration with the 320 Bus Line

Health/Safety
The new parking garage would be gated, sheltered from the elements, and well-lit with video surveillance to enhance safety

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Ridership/Capacity
Two thousand additional parking spaces would accommodate existing and growing ridership to Port Authority Bus Terminal

Comfort
A new, indoor climate controlled facility would improve customer experience as they wait for their bus

*Two thousand additional parking spaces would **accommodate peak ridership** and **generate parking revenue**.*

PROJECT SHEET | OLD BRIDGE PARK AND RIDE ENHANCEMENT

Description

NJ TRANSIT operates 14 park & ride facilities throughout the state which provide parking for 8,800 vehicles and access to 25 lines of the NJ TRANSIT bus network. In the future, the Old Bridge Park & Ride will allow buses the advantage of future planned Exclusive Bus Lanes (XBL) and Bus Bypass Shoulders (BBS) to prioritize buses on this congested corridor. The Old Bridge Park & Ride Facility is located on the northbound side of Route 9 and provides 916 parking spaces for NJ TRANSIT bus customers. Buses must currently exit Route 9 to drop off customers during the PM commute in a movement that increases travel time. Customers returning in the evening must walk approximately a quarter of a mile, with no protection from the elements, over the Meleta Way bridge to the park & ride facility on the northbound side.

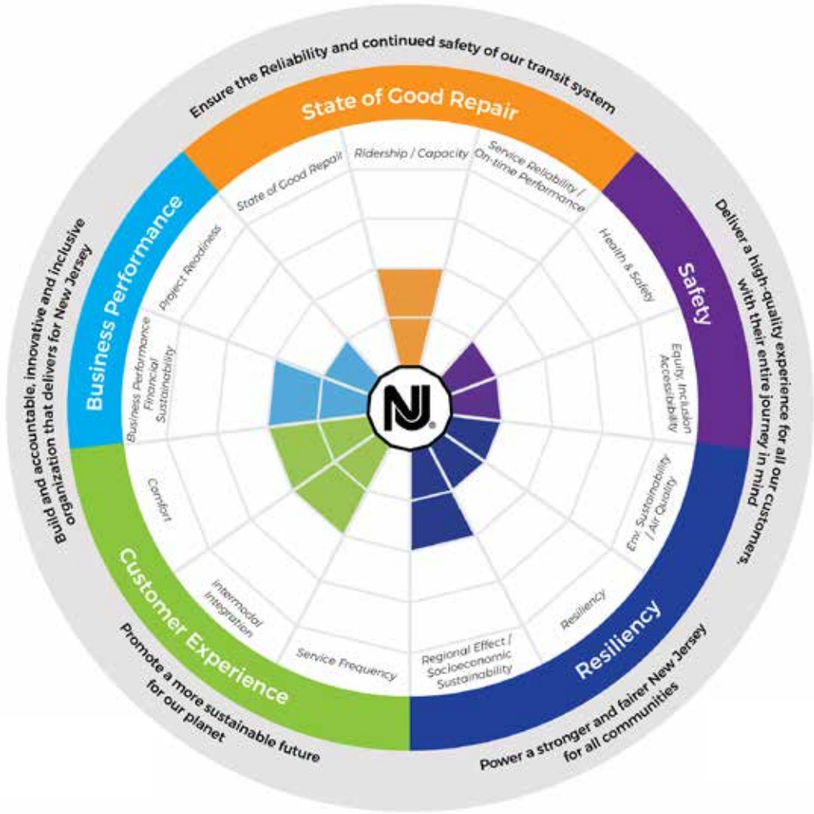
If funded, a new enclosed pedestrian bridge would be constructed to connect the drop off point on the southbound side of Route 9 with the parking lots on the northbound side of Route 9, and a turnout would be constructed along the southbound side of Route 9 to reduce the complication of evening drop offs. This will improve operational efficiency and decrease travel time for customers continuing south from the park & ride.

EXISTING:
Old Bridge Park & Ride

PROPOSED:
New Pedestrian Bridge

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$22 Million



Value to Customers

- New pedestrian bridge provides protection from the elements.

Value to State

- Increases parking capacity leads to increased ridership and return on investment
- New southbound turnout/drop off results in reduced travel time and improved operational efficiency

PROJECT SHEET | OLD BRIDGE PARK AND RIDE ENHANCEMENT

Legend

- Existing Parking
- New Facilities
- New SB Turnout
- PM Walking Routes

PROJECT SHEET OLD BRIDGE PARK AND RIDE ENHANCEMENT

ESTIMATED TOTAL PROJECT COSTS

$22M

Intermodal Integration
Enhanced bus operations and pedestrian bridge would make it easier for customers to transition from their car to a bus

Comfort
Pedestrians would be able to more safely connect from one mode of transportation to another on their commute

Ridership/Capacity
Decreased commute times with faster dedicated bus corridors would attract more riders

Business Performance/Financial Sustainability
Enhanced pedestrian and bus amenities would increase ridership revenues and operational efficiency

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Park and Ride enhancement would ***improve operational efficiency and decrease travel time*** *for customers.*

PROJECT SHEET | PARK & RIDE BUS SHELTER MODERNIZATION PROGRAM

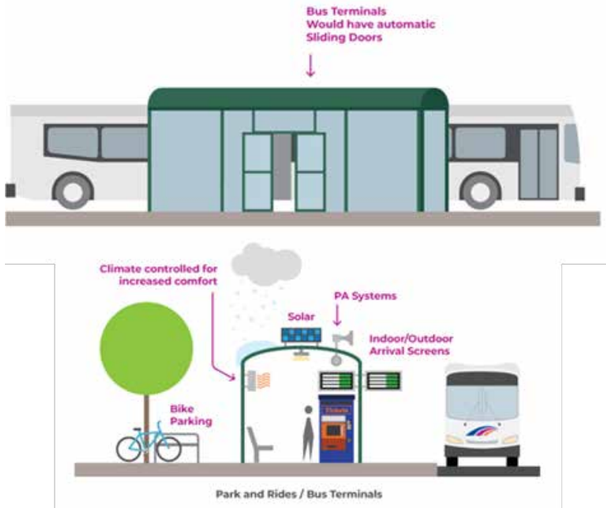
Description

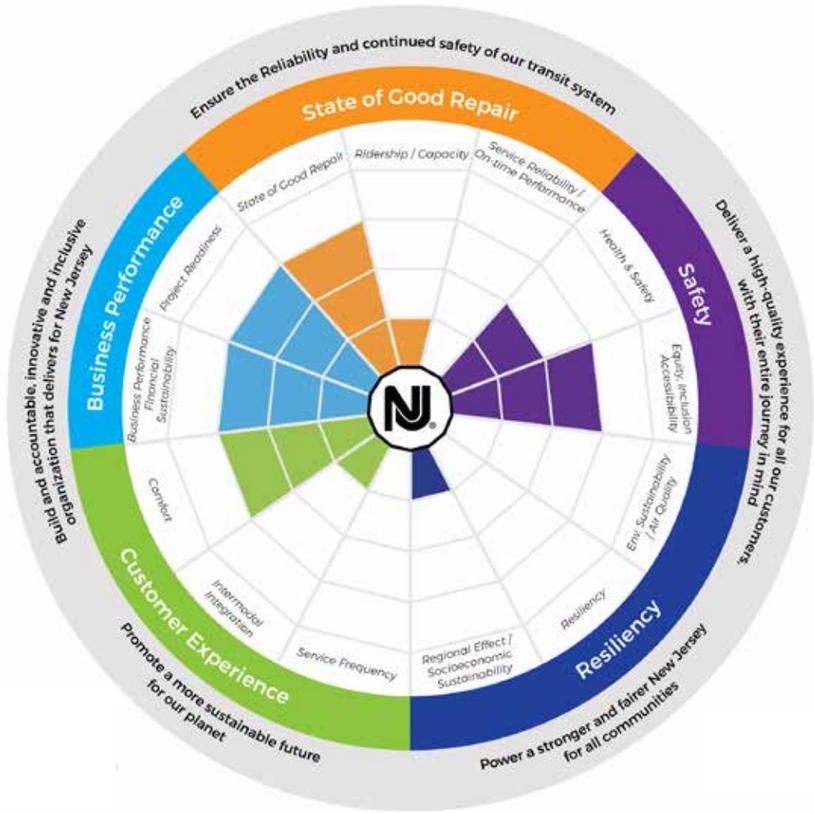
NJ TRANSIT operates 14 Park & Ride facilities throughout the state which provide parking for over 8,800 vehicles and access to 25 NJ TRANSIT bus lines. Passenger shelters are provided at each park & ride facility. These shelters are overcrowded and are at or past the end of their service life, and do not provide any amenities to customers other than perfunctory limited weather shielding.

If funded, the Park & Ride Bus Shelter Modernization Program would replace existing passenger shelters. The new structures could feature well-lit climate-controlled enclosures with automatic doors and may incorporate solar panels. Accessibility features will be considered during the design. Paving and curb repairs, drainage repairs, pavement striping, exterior lighting, CCTV cameras installation, PA systems and customer information displays are other key elements which could also be implemented at each facility as part of this project. Off-board fare collection could be included at each location.

EXISTING:
Old Bridge Park & Ride Enclosure

PROPOSED:
Example Architecturally Enhanced Enclosure





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$75 Million**

**Estimate based upon concept design*

Value to Customers

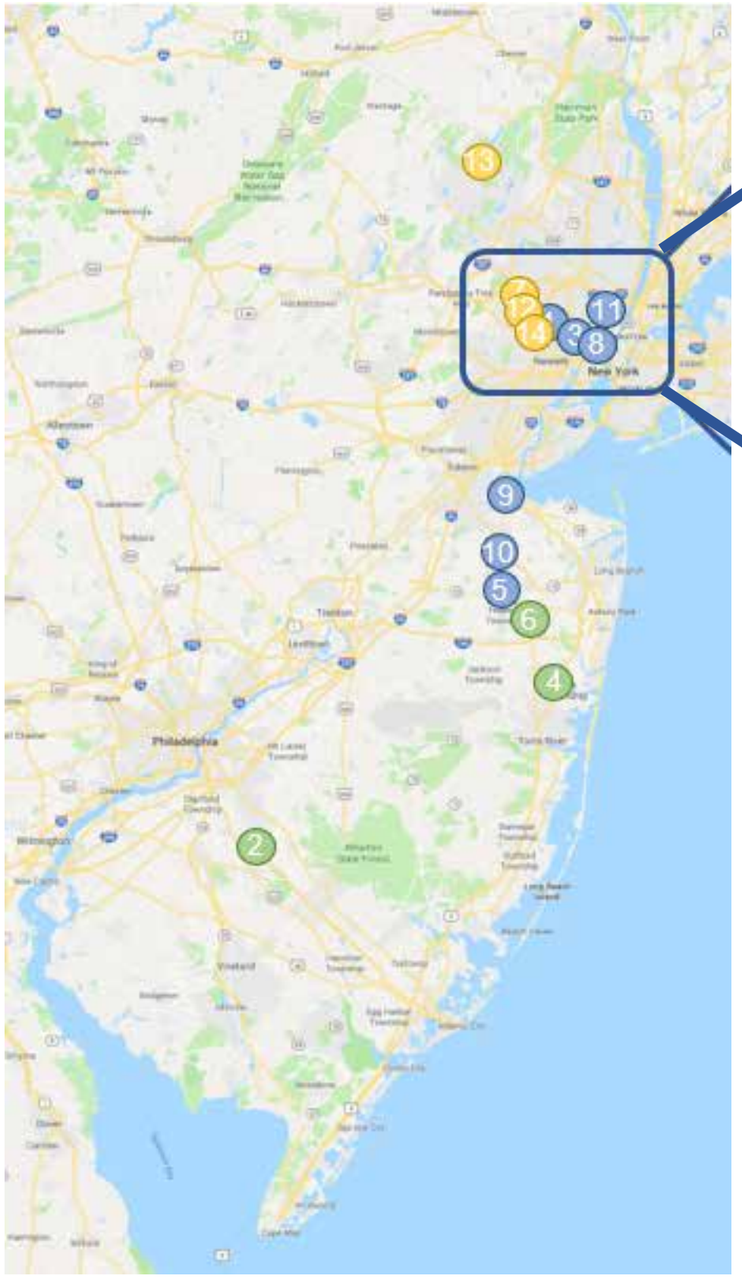
› Increases safety and comfort

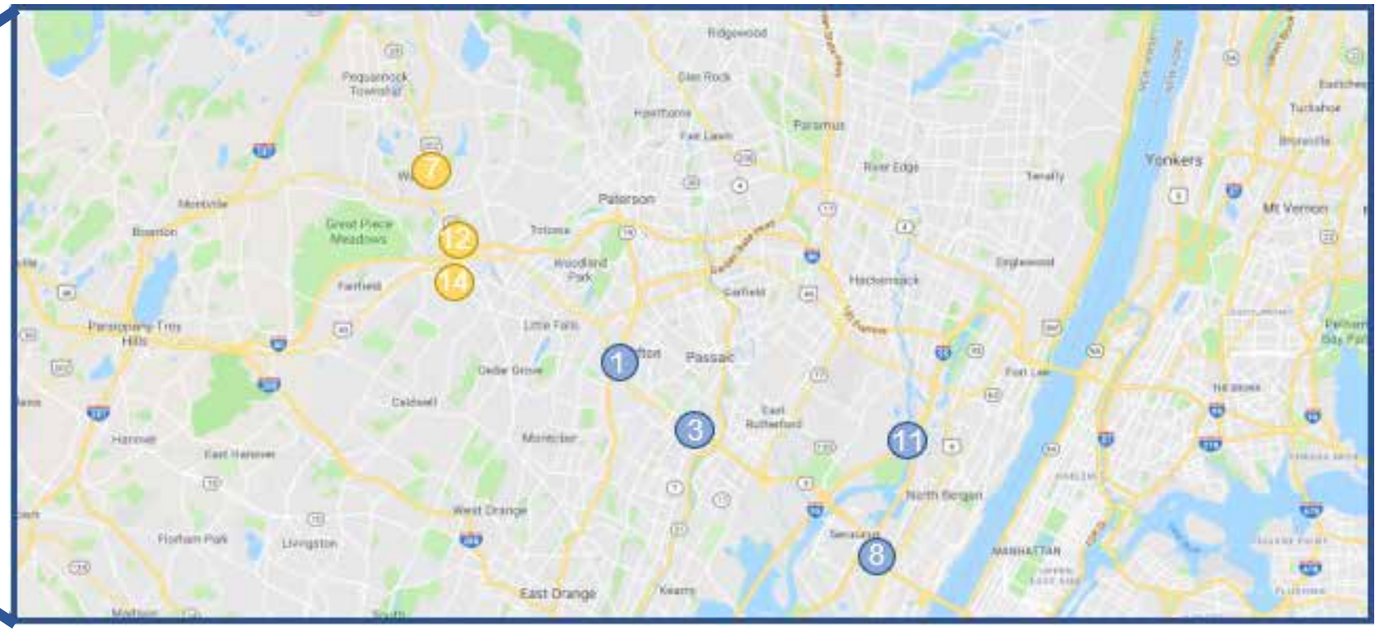
Value to State

› Increases return on investment for revenue vehicles due to increased attractiveness of facility

PROJECT SHEET | PARK & RIDE BUS SHELTER MODERNIZATION PROGRAM

Park & Ride Locations





Park & Ride Facility	Parking Spaces	Shelter Footprint (SF)	Construction Year
1. Allwood	*695*	*980*	*3*
2. Avandale	*330*	*700*	*2*
3. Clifton Commons	*134*	*450*	*3*
4. Dorado	*230*	*1,100*	*2*
5. Freehold Mall	*349*	*1,200*	*3*
6. Howell	*462*	*3,500*	*2*
7. Mother's	*286*	*600*	*4*
8. North Bergen	*1,504*	*6,000*	*3*
9. Old Bridge	*913*	*4,000*	*3*
10. Union Hill	*589*	*1,000*	*3*
11. Vince Lombardi	*1,022*	*6,000*	*3*
12. Wayne 23	*1,017*	*3,000*	*4*
13. West Milford	*252*	*600*	*4*
14. Willowbrook	*1,082*	*1,300*	*4*

Legend	
Year 1	*Design*
Year 2	*Avandale, Dorado, Howell*
Year 3	*Allwood, Clifton Commons, Freehold Mall, North Bergen, Old Bridge, Union Hill, Vince Lombardi*
Year 5	*Mother's, Wayne 23, West Milford, Westbrook*

PROJECT SHEET PARK & RIDE BUS SHELTER MODERNIZATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$75M

Business Performance/Financial Sustainability
Updated shelters would be more cost effective and would potentially attract more customers

State of Good Repair
Existing shelters at the end of their service would be prioritized for replacement

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Comfort
New shelters would be climate-controlled, well-lit, and sized to reduce crowding

Equity, Inclusion, and Accessibility
New shelters would be accessible for all customers

*New shelters would be **accessible for all, well-lit, and climate controlled**, yielding **safer, cleaner**, and **more comfortable shelters**.*

PROJECT SHEET | LOCAL BUS SHELTER MODERNIZATION PROGRAM

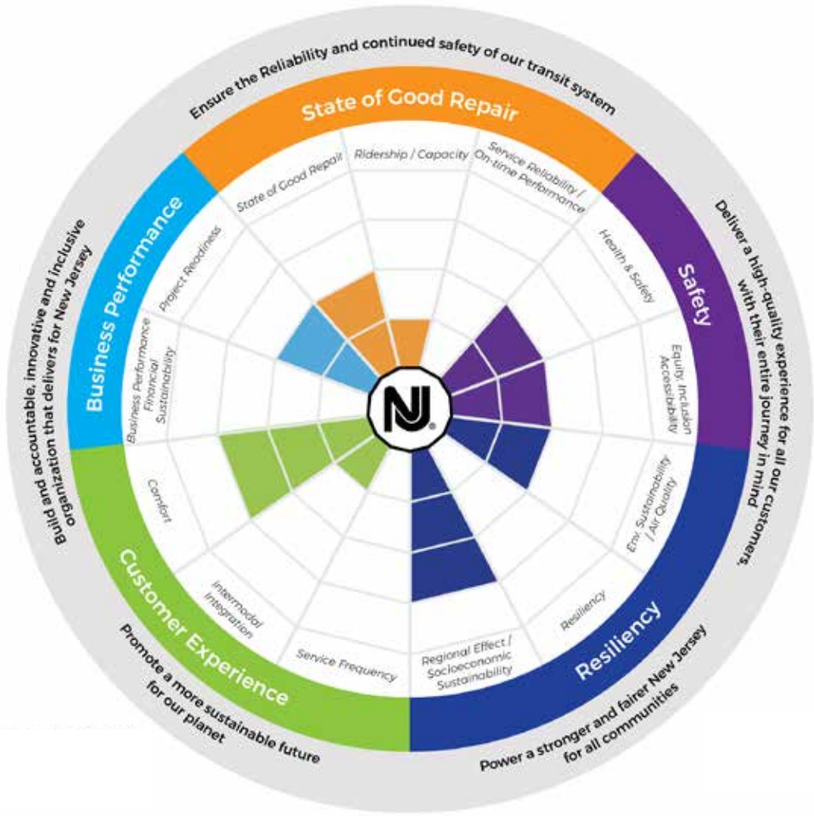
Description

NJ TRANSIT operates over 200 bus routes that provide service to 386 municipalities across New Jersey. Along those routes, NJ TRANSIT has furnished and installed local bus shelters that are maintained by local municipalities. These bus shelters vary in age; some have reached the end of their anticipated service life and are in poor condition. In addition, lack of lighting at the bus shelters is a safety concern. The existing bus shelters provide limited weather protection. Upgrading these shelters is an opportunity to add value to the customer experience.

If funded, this project would replace and augment existing bus shelters with new enhanced bus shelters. The shelter design would be standardized to reduce procurement costs and simplify the installation. The new shelters would include solar panels to power lighting and enhance the customer experience.

EXISTING:
Typical Local Bus Shelter

PROPOSED:
"Green" Powered Enhanced Shelter



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$17 Million**

**Estimate based upon concept design*

Value to Customers

- Increases safety, security, and comfort for customers

Value to State

- Increases return on investment for revenue vehicles due to increased attractiveness of facilities
- Enhances safety for customers

PROJECT SHEET LOCAL BUS SHELTER MODERNIZATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$17M

Regional Impact/Socioeconomic Sustainability
Safer and more comfortable bus shelters would make it easier for customers to use the bus network

State of Good Repair
Modernized shelters would reduce average age of bus shelters and maintenance and operations costs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Health/Safety
Improved lighting at bus shelters would enhance customer safety

Comfort
Modern bus shelters would contain modern amenities to improve customer comfort while waiting

*New shelters would include solar panels to **power lighting elements to enhance customer experience**.*

PROJECT SHEET | PASSAIC BUS TERMINAL REDEVELOPMENT

Description

The Passaic Bus Terminal provides service to 10 NJ TRANSIT bus lines and is located within a turn-out on Main Avenue in Passaic and provides no off-street bus facility. There is currently space for four 40-foot buses within the terminal. The NJ TRANSIT Fleet Replacement Plan will include the replacement of many of the existing 40-foot NABI Suburban and Transit style buses with new 60-foot articulated buses. These new, larger buses will further reduce operational capacity at the facility.

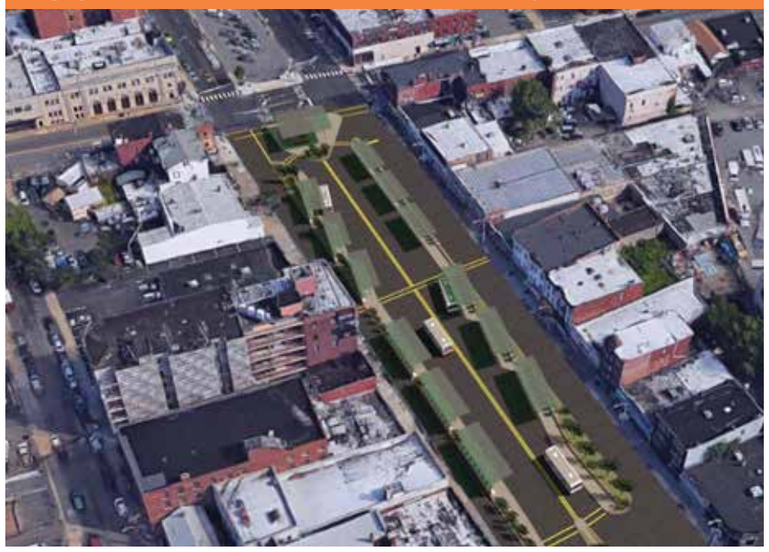
If funded, the Passaic Bus Terminal Project would replace the existing terminal turn-out with a new off-street terminal facility. The new location could provide space for up to 12 buses within the terminal facility and provide amenities such as solar panels mounted to the terminal awnings, CCTV cameras, improved lighting, PA systems, customer information displays, and off-board fare collection. It would also provide an opportunity for integration with battery electric buses.

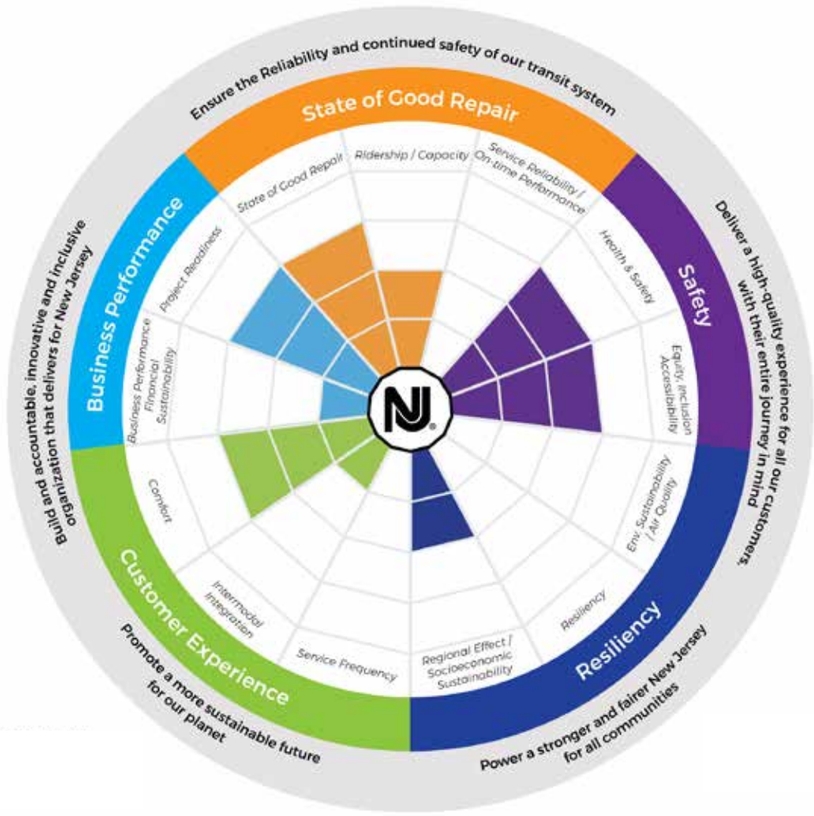
ESTIMATED PROJECT COSTS (2020 DOLLARS):

$6 Million

EXISTING:
Passaic Bus Terminal Transportation Center

PROPOSED:
Upgraded Bus Terminal Facility





Value to Customers

- Increases safety, comfort, and access
- Improves customer experience

Value to State

- Increases return on investment for revenue vehicles due to increased ridership and lower cost of maintenance

PROJECT SHEET PASSAIC BUS TERMINAL REDEVELOPMENT

ESTIMATED TOTAL PROJECT COSTS

$6M

Comfort
New customer amenities, including covered waiting areas, enhanced lighting, and upgraded information displays, would enhance comfort

Equity, Inclusion, and Accessibility
A redeveloped bus terminal would accommodate the needs of more passengers throughout the terminal

State of Good Repair
A brand new facility would replace the aging facility and provide an opportunity for integration with battery electric buses

Health/Safety
A new facility with improved customer-facing amenities and improved layout for bus pick-ups and drop-offs would improve overall pedestrian safety

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

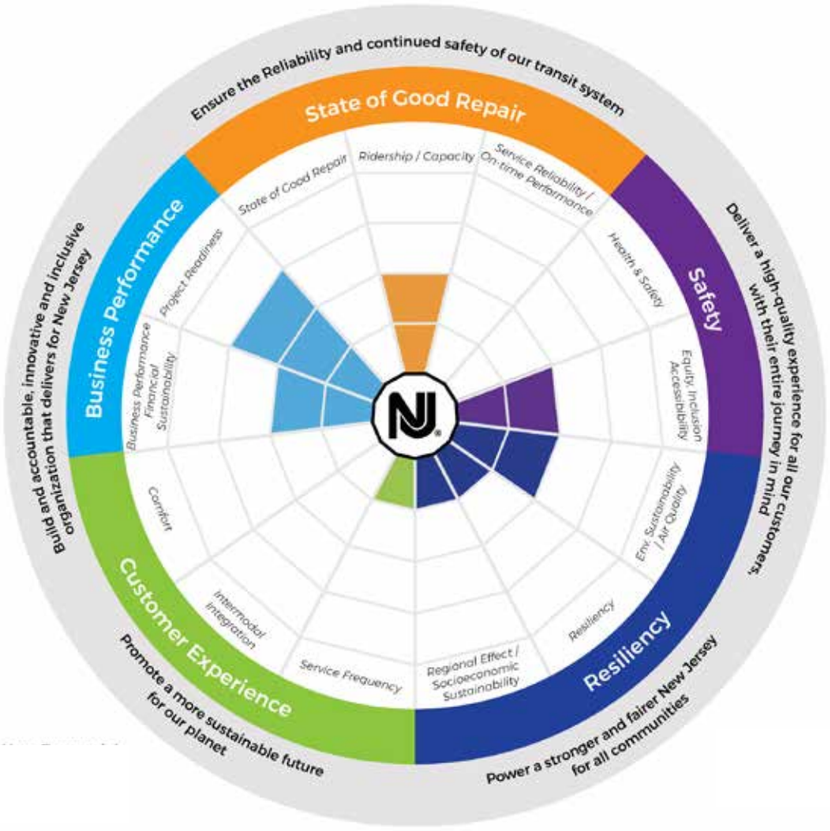
Redeveloping Passaic Bus Terminal would ***replace the existing terminal*** *with a new off-street terminal facility that will* ***enhance comfort, safety, and state of good repair****.*

PROJECT SHEET | NEW BRUNSWICK RAPID SURFACE TRANSIT STUDY

Description

Build on previous studies examining light rail service in Middlesex County. The most recent study was completed in 2001, and proposed a light rail alignment following Route 18 and connecting Piscataway, New Brunswick, and East Brunswick. An updated study would evaluate alignments and propose additional modal alternatives beyond light rail, including BRT and autonomous rail or bus vehicles.

EXISTING:
NJ TRANSIT Light Rail Service



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$10 Million

Value to State

- A more economically competitive region with improved local growth opportunities
- Creates a more efficient and environmentally sustainable transit network
- Lessens congestion on local roads and major highways

Value to Customers

- Expands transit network to provide convenient options for more customers
- Creates new and faster transit connectivity to employment centers, educational institutions, medical centers, and other major trip attractors and generators throughout the State

PROJECT SHEET NEW BRUNSWICK RAPID SURFACE TRANSIT STUDY

ESTIMATED TOTAL PROJECT COSTS

$10M

Environmental Sustainability/Air Quality
An expanded transit network would reduce vehicle emissions and provide a more efficient, sustainable transportation option

Equity, Inclusion, and Accessibility
Expanding the transit network would provide more local service options for all groups

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

Project Readiness
The study could be completed within two years and would be ready to start very quickly

Ridership/Capacity
Expanding the transportation network would increase the customer base and provide more convenient options to existing customers

The New Brunswick Rapid Surface Transit Study would allow NJ TRANSIT to ***expand service*** *and* ***better support economic vitality****.*

PROJECT SHEET | RAPID SURFACE TRANSIT SYSTEM DEVELOPMENT AND DESIGN PROGRAM

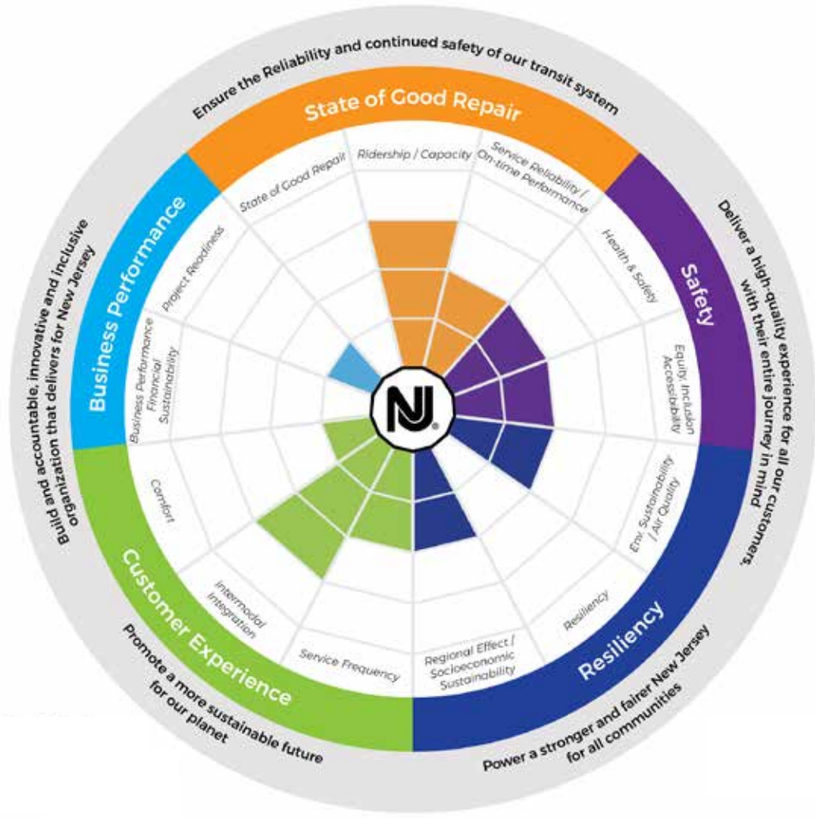
Description

New Jersey Transit operates over 200 bus routes and three light rail lines throughout the state. To improve connectivity of New Jersey's transportation network, NJ TRANSIT is interested in developing rapid transit systems aimed at improving the speed and performance of surface transportation and to connect customers to major destinations with express service.

The Rapid Surface Transit System Development and Design Program consists of studies and design work necessary to progress the development of rapid surface transit systems and other dedicated surface treatments that improves the on-time performance of the bus and light rail network. This program aims to improve connectivity and travel times to critical destinations and adds connections to missing links throughout the state.

If funded, on-road amenities that would be explored and developed for these systems may include design of right of way improvements for dedicated surface transportation systems on both existing and new infrastructure, pedestrian access improvements to stops and stations, park and ride improvements, off-board ticketing, new vehicle fleet planning, and if the system is electrified, dedicated infrastructure for charging.

PROPOSED:
Rapid Surface Transit Systems



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$538 Million

Value to State

- Creates a more economically competitive region with improved local growth opportunities
- Develops a more efficient and environmentally sustainable transit network
- Lessens congestion on local roads and major highways
- Allows for potential to set a precedent for bus rapid transit in New Jersey
- Provides better connectivity for customers.
- Improves safety for state residents

Value to Customers

- Creates new and faster transit connectivity to employment centers, airports, educational institutions, medical centers, and other major trip generators
- Provides more reliable on-time performance of bus services
- Includes dedicated stations providing a comfortable wait
- Creates potential to bring more bicycle and pedestrian links to several counties

PROJECT SHEET RAPID SURFACE TRANSIT SYSTEM DEVELOPMENT AND DESIGN PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$538M

Service Reliability
Faster and more efficient services and routes would yield stronger on-time performance

Regional Impact/Socioeconomic Sustainability
Adding connections would improve access to missing links across the State

Ridership/Capacity
Increased express service offerings to customers would capture more ridership and demand

Intermodal Integration
More connections provided to transit hubs would allow for quicker journeys to and from major destinations

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Improving **speed** and **performance** of the surface transportation system would **connect customers to major destinations**.*

PROJECT SHEET | PRINCETON TRANSITWAY

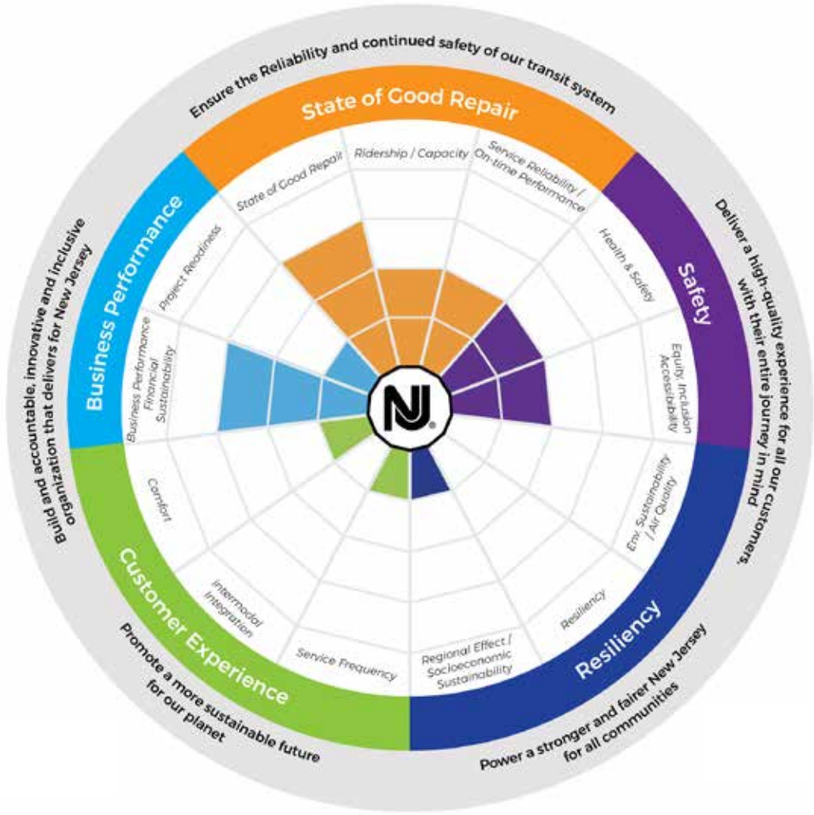
Description

NJ TRANSIT's Princeton Branch is a 2.7-mile electrified commuter rail line running between Princeton Junction (in West Windsor) and Princeton, the line's only two stations. At Princeton Junction, passengers connect with Northeast Corridor rail service to New York City, Newark, and Trenton, as well as to Amtrak regional and national rail services. Princeton Branch service is provided exclusively by Arrow III self-propelled Electric Multiple Unit (EMU) cars built in 1977 which have endured long service lives. New multi-level EMUs being rolled out over the NJ TRANSIT rail system would be ill-suited for operation on the Princeton Branch.

If funded, the Princeton Transitway Project would implement a new surface transportation route to serve the Princeton area. The existing Princeton Branch right-of-way would provide an anchor for this new system, which would help to accommodate Princeton University's plans to expand housing and facilities beyond the current campus limitations. The study and design phase would determine the preferred alternative for the initial implementation of the surface transportation route. The design phase would include removal of the electrified rail service, which is costly to maintain, and replace it with a surface transportation route between Princeton and Princeton Junction.

EXISTING:
Dinky Electrified Rail Service

PROPOSED:
Surface Transportation System



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$61 Million

Value to Customers

- Provides access to new comfortable vehicles
- Improves reliability of service due to elimination of electrified rail

Value to State

- Reduces operating costs resulting in more efficient use of funds
- Improves safety and reliability of surface transportation system over electrified rail

PROJECT SHEET PRINCETON TRANSITWAY

ESTIMATED TOTAL PROJECT COSTS

$61M

Business Performance/Financial Sustainability
Implementing the Transitway would reduce maintenance costs while providing expanded service

Service Reliability
The Transitway would improve service reliability while expanding service

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

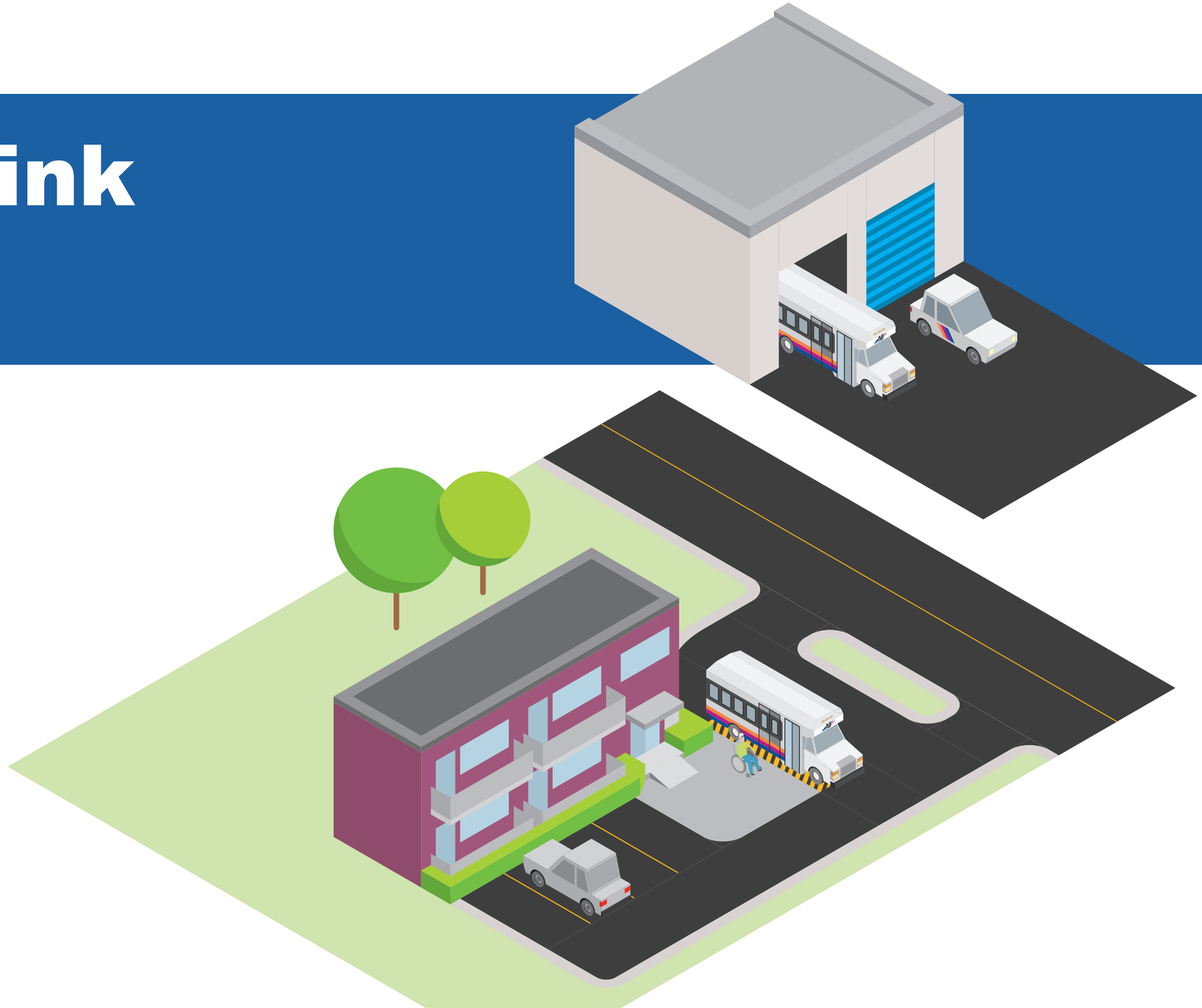
Ensure the reliability and continued safety of our transit system

Ridership/Capacity
Improved capacity would enable the service to meet residential growth

State of Good Repair
Replacing an old and expensive rail service with modern surface transportation would improve overall state of good repair

*The Princeton Transitway would provide **an anchor to accommodate expanded housing and facilities** in the surrounding area.*

Access Link



PROJECT SHEET | ACCESS LINK FLEET MODERNIZATION AND EXPANSION PROGRAM

Description

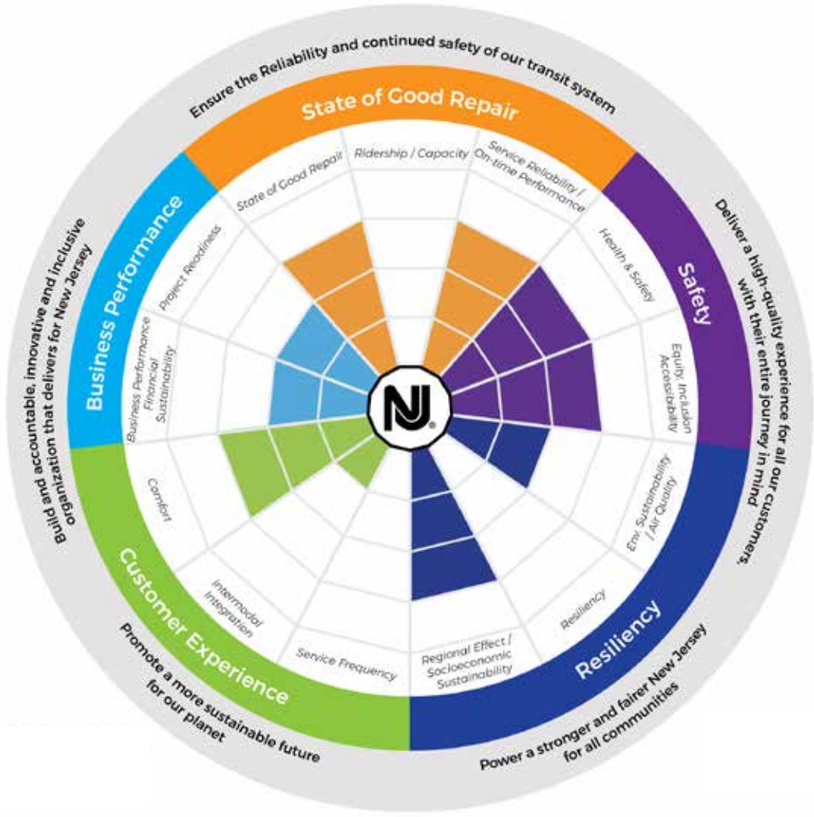
NJ TRANSIT's paratransit program, Access Link, provides accessible public transportation for customers throughout the state. Access Link provides comparable service to the local fixed bus route system within ¾ of a mile around local fixed bus routes and light rail stations, during the same times and days of the week. The Access Link fleet consists of 500 vehicles with an average age of 3.75 years consisting of 20% sedans and 80% minibuses. The oldest vehicles in the fleet are up to six years old and have traveled over 290,000 miles. As the fleet has advanced in age, maintenance expenses have begun to escalate due to the increased frequency of component failure. These maintenance challenges result in significant delays which in turn adversely effect on-time performance.

If funded, the Access Link Fleet Modernization and Expansion Program would meet the needs of our customers through vehicle expansion to meet projected ridership growth as well as to maintain a state of good repair of the Access Link fleet. The program would allow Access Link to remain current with the latest technology, accessibility options, safety equipment, and customer amenities. Vehicles would be replaced on a first-in first-out basis on a five year and/or 250,000 miles useful service life cycle. This replacement plan would account for 25% fleet growth. The first vehicles that would be replaced in the plan would be replaced with hybrid vehicles. Twenty-five percent of the light duty fleet would be plug-in electric by the end of 2025.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$50 Million

PROPOSED:
New Updated Fleet



Value to Customers

- Increases on time performance, safety and service reliability

Value to State

- Lowers operating expenses hence more efficient use of public funds
- Better performance for a more accessible transportation network

PROJECT SHEET ACCESS LINK FLEET MODERNIZATION AND EXPANSION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$50M

Comfort
New vehicles would include modern amenities to enhance customer comfort

Service Reliability
Expanded fleet and new vehicles would improve service reliability and reduce delays

State of Good Repair
Fleet replacement would reduce the average age of the fleet and frequency of equipment failures

Equity, Inclusion & Accessibility
The fleet would be expanded and new vehicles would include amenities to better meet the needs of the growing customer base

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

An expanded and modern Access Link fleet would ***accommodate ridership growth*** *and* ***improve service performance****.*

PROJECT SHEET | ACCESS LINK ELECTRIC VEHICLE (EV) PILOT PROGRAM

Description

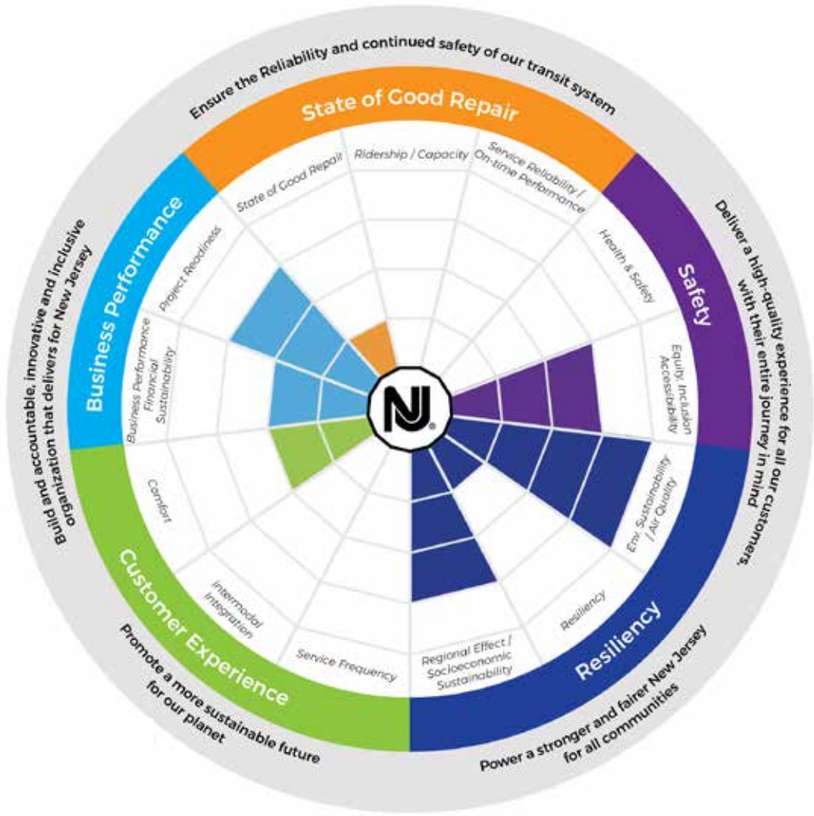
NJ TRANSIT's paratransit program, Access Link, provides accessible public transportation for customers throughout the state. Access Link service operates parallel to NJ TRANSIT bus and light rail service and consists of 500 vehicles. To improve paratransit service and improve air quality for the communities it serves, NJ TRANSIT has a goal of transitioning its entire Access Link Fleet to electric vehicles.

If funded, the Access Link EV Pilot Program would deploy a limited number of electric vehicles (EVs) to test the performance of EVs for Access Link service. The pilot would include the procurement of 15 sedan style EVs and all associated equipment, such as 240 volt chargers. The EVs would be deployed out of an existing Access Link facility with no anticipated utility upgrades

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$3 Million

PROPOSED:
Limited Electric Vehicle Rollout



Value to Customers

- Improves customer experience with more comfortable ride
- Improves customer experience with environmentally sustainable fleet

Value to State

- Lowers operating expenses hence more efficient use of public funds
- Better performance for a more accessible transportation network

PROJECT SHEET ACCESS LINK ELECTRIC VEHICLE (EV) PILOT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$3M

Equity, Inclusion & Accessibility
New vehicles would be more reliable and include amenities to better meet the needs of the growing customer base

Regional Effect/Socioeconomic Sustainability
The addition of new electric vehicles would improve service and reliability throughout the Access Link network

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

Environmental Sustainability/Air Quality
Piloting electric vehicles would be an initial step to reducing the agency's overall vehicle emissions

Business Performance/Financial Sustainability
New electric vehicles would reduce operation and maintenance (O&M) costs and enhance the attractiveness of the service to potential customers

*The Access Link EV pilot would **create a more environmentally sustainable network** while **improving customer experience** and **reducing O&M costs**.*

PROJECT SHEET | NEW ACCESS LINK GARAGE

Description

NJ TRANSIT's paratransit program, Access Link, provides accessible public transportation for customers throughout the state. Access Link service operates parallel to NJ TRANSIT bus and light rail service and consists of 500 vehicles. Access Link contracts paratransit service out to providers and paratransit facilities are leased through the service providers from property owners. Leasing facilities introduces numerous challenges such as a long and expensive bid process and site identification, neighborhood objections, high cost of structural modifications, and efforts needed to restore properties to their original state at the conclusion of the lease. Approximately 70% of NJ TRANSIT's Access Link system operates in Region 4 (Mercer, Middlesex, Monmouth & North Ocean Counties), Region 5 (Essex, Morris, Somerset & Union Counties), and Region 6 (Bergen, Hudson, Passaic, & parts of Essex Counties).

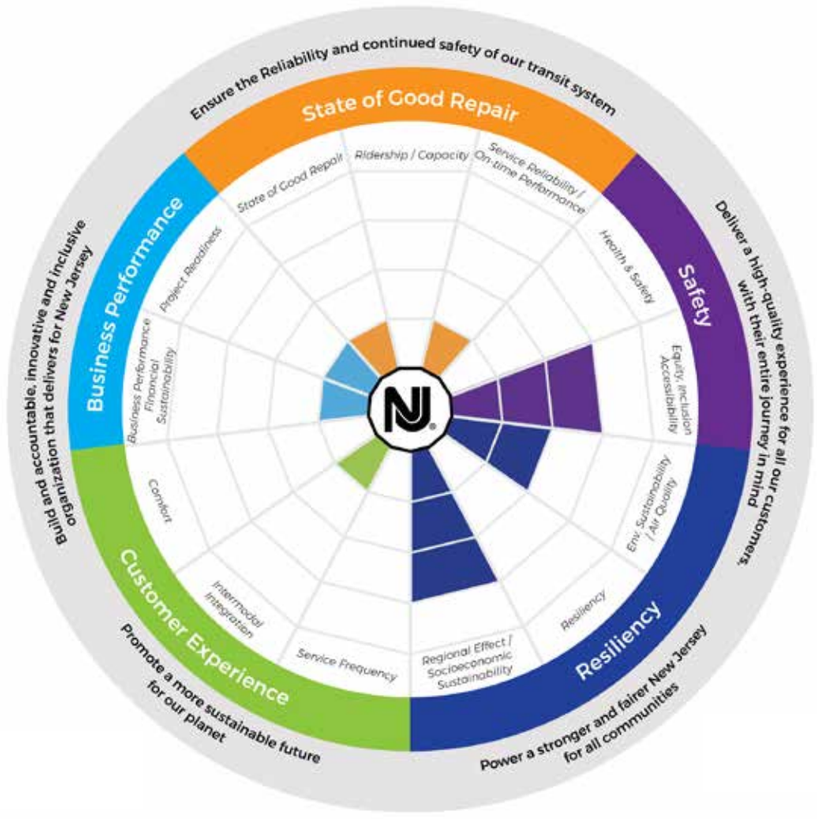
If funded, a new Access Link garage owned by NJ TRANSIT would likely be located in Region 5. Locating the facility in Region 5 would provide a dedicated storage and maintenance facility for over 35% of the Access Link fleet. The new garage would be constructed with solar panels on the roof, modern fleet diagnostics and maintenance equipment, and space for electric charges for zero emission paratransit buses. The location of the facility would be selected to minimize vehicle travel time to and from the garage to their respective NJ TRANSIT bus lines. The facility would be sized to address forecasted ridership growth and service demand.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$59 Million

EXISTING:
Leased Access Link Vehicle Storage

PROPOSED:
New Garage Facility



Value to Customers

- Improves system resiliency due to maintained equipment
- Reduces depot delays

Value to State

- Reduces lifecycle maintenance costs and enables more efficient use of taxpayer funds with new sustainable facilities
- Return on Investment of owning vs. leasing garage

PROJECT SHEET NEW ACCESS LINK GARAGE

ESTIMATED TOTAL PROJECT COSTS

$59M

Equity, Inclusion & Accessibility
Centralized fleet storage at the new garage would improve reliability and reduce delays to more efficiently transport customers

Service Reliability
The new garage would serve as dedicated maintenance facility improving vehicle reliability and reducing delays

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

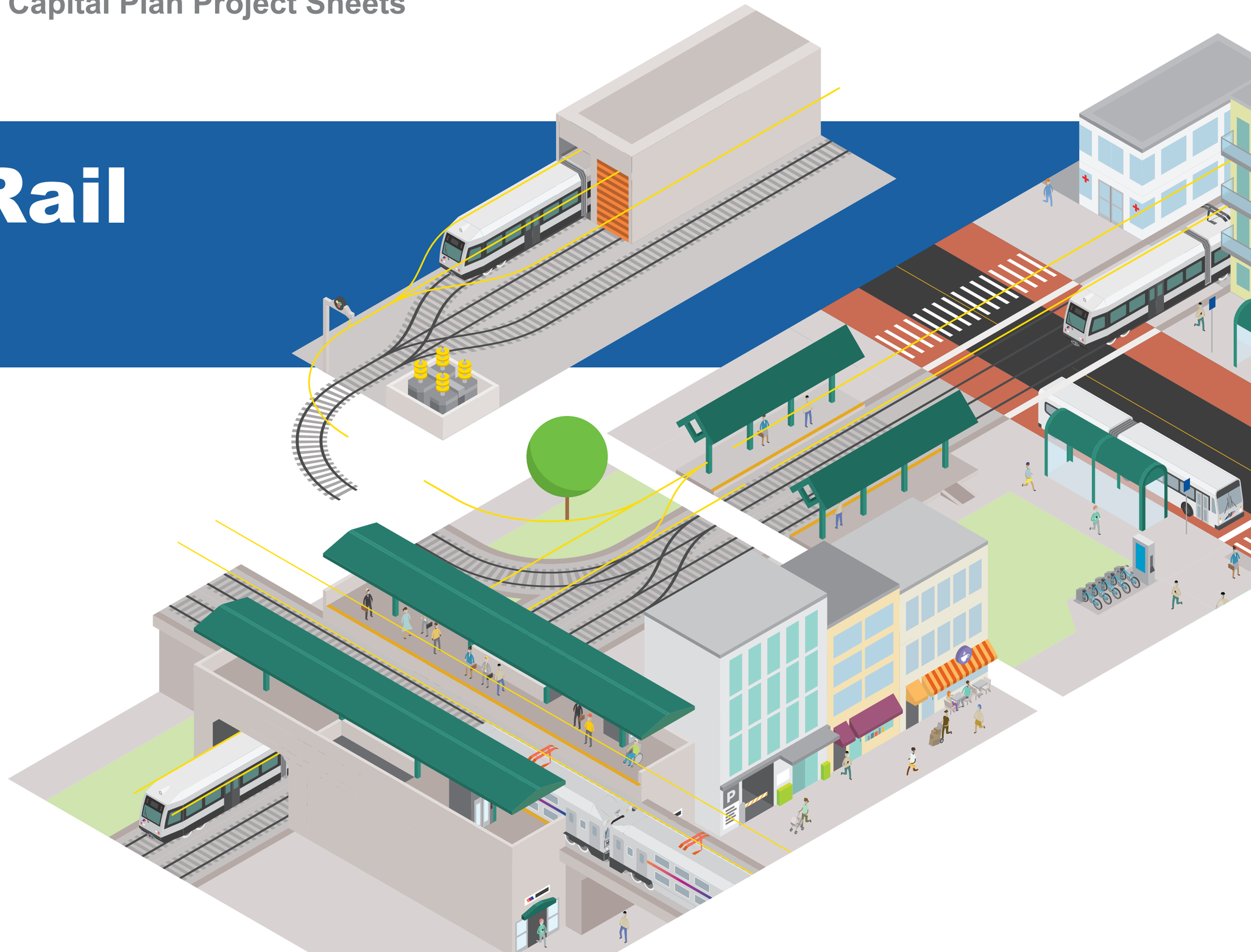
Environmental Sustainability/Air Quality
The new garage would be constructed with rooftop solar panels and space to c charge zero emission paratransit buses

Regional Effect/Socioeconomic Sustainability
The new garage would be sized and located to effectively address ridership growth and service demand

New Access Link garage would ***accommodate ridership growth*** *and* ***improve service and state of good repair****.*

Appendix B Capital Plan Project Sheets

Light Rail



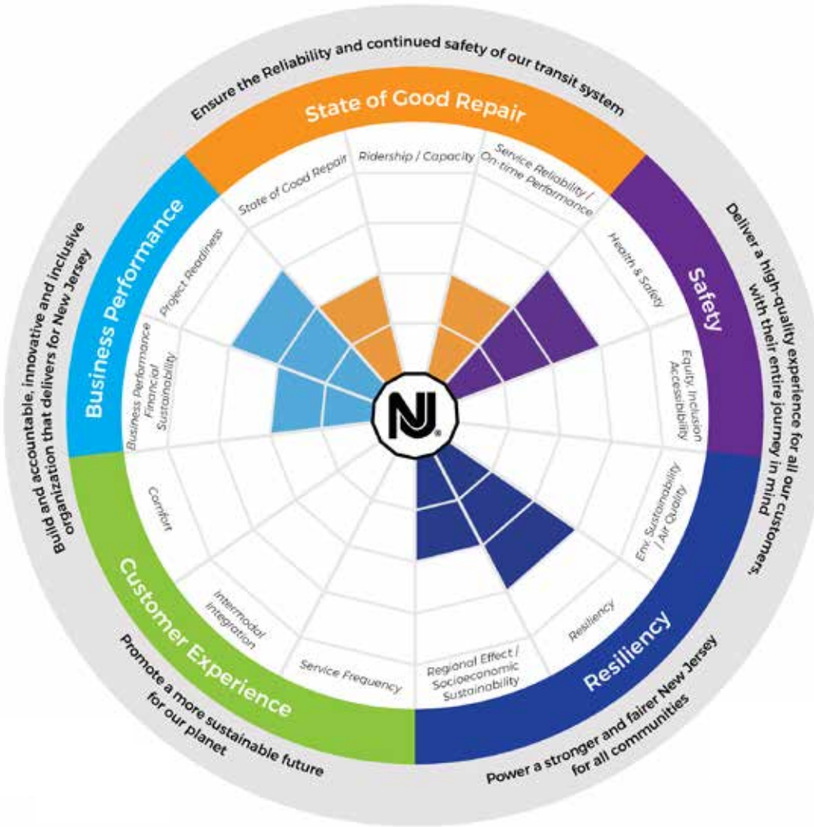
PROJECT SHEET | RIVER LINE RIGHT-OF-WAY (ROW) FLOODING MITIGATION STUDY

Description

NJ TRANSIT's River LINE provides a vital connection from Trenton to Camden for 8,690 weekly riders. However, the final 1.5 miles of the service experiences frequent disruptions from localized flooding. The flooding occurs in Camden's downtown business and entertainment district during rain events exasperated by high tides from the Delaware River. Flooding that rises above the curb level halts River LINE service, forcing NJ TRANSIT to supplement the service with bus operations. The River LINE Right-of-way (ROW) Flooding Mitigation Study would evaluate the drainage system alongside the tracks between the Cooper Street/Rutgers station to Entertainment Center and determine upgrades that could alleviate the flooding and allow continuous service.

If funded, the study would include recommendations for repairs to the track structure and drainage system at each station location. The study would also identify steps to ensure compliance with New Jersey's stormwater regulations, identify where the water discharges after it enters an inlet, and if the existing stormwater pipes are operational. Coordination with the City of Camden would be need if additional flood mitigation measures are identified outside the NJ TRANSIT River LINE ROW.

EXISTING:
River LINE



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$1 Million**

**Project cost is for study phase only*

Value to Customers

› Decreases delays caused localized flooding

Value to State

› Increases service reliability

› Reduces operational costs of redundant bus service, providing more efficient use of public funds

PROJECT SHEET RIVER LINE RIGHT-OF-WAY (ROW) FLOODING MITIGATION STUDY

ESTIMATED TOTAL PROJECT COSTS

$1M

Regional Effect/Socioeconomic Sustainability
Mitigating flooding events would improve overall River LINE service and decrease train cancellations

Resiliency
Improved drainage to mitigate flooding events would make the River LINE ROW more resilient

Health/Safety
Decreasing incidents of flooding would improve health and safety for customers and employees

Business Performance/Financial Sustainability
Mitigating flooding along the River LINE ROW would decrease operational delays and reduce maintenance costs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Promote a more sustainable future for our planet

*The study would result in recommendations to **mitigate River LINE ROW flooding** and **determine infrastructure upgrades to allow for more continuous service**.*

PROJECT SHEET | RIVER LINE FLEET OVERHAUL

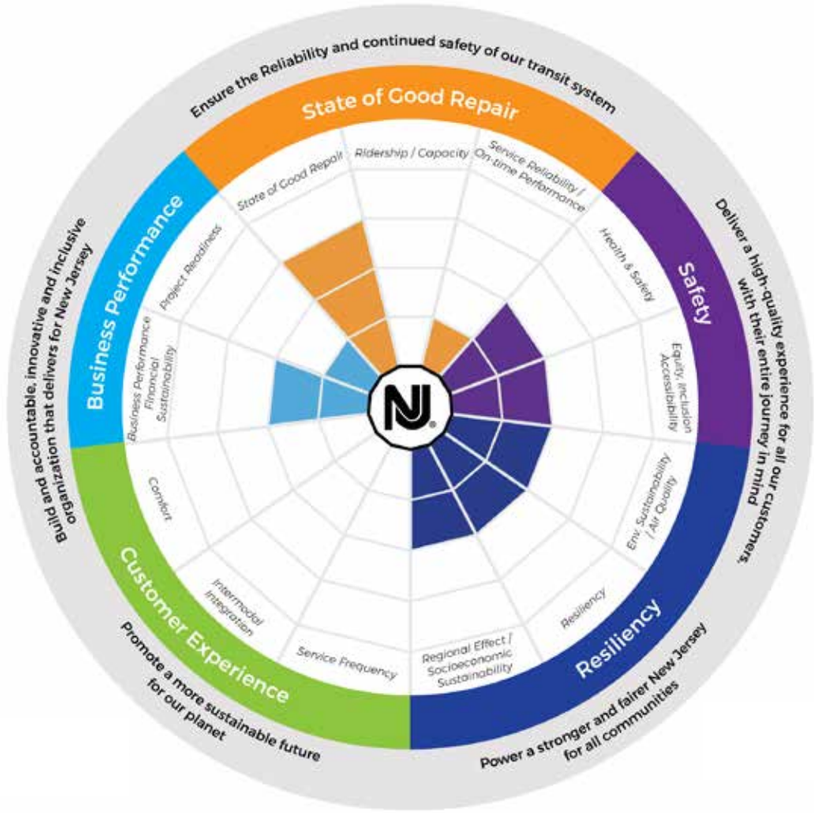
Description

The NJ TRANSIT River LINE Light Rail provides service between the Walter Rand Transportation Center in Camden, NJ, and the Trenton Transit Center in Trenton. This line currently services an average of 8,700 riders per average weekday, which is well above the originally estimated 5,500 per day. Given the growth in ridership, it is important that all rail line cars operate properly to ensure a safe and reliable commute for passengers. However, the existing River LINE Light Rail fleet has surpassed the midpoint of its service life and requires a mid-life overhaul to ensure adequate operation and that it meets continued demands of the system.

If funded, this project would provide mid-life overhauls to the existing light rail vehicles. This would include both mechanical and customer facing repairs, replacements, and upgrades. Furthermore, this project would follow the Engine Repower effort, which is an ongoing NJ TRANSIT project that is replacing the engines in many of the vehicles. These engines would meet current EPA standards for emissions, provide better fuel efficiency, and include upgrades to its control and diagnostic capabilities. These overhauls would ultimately extend the vehicle service life by a minimum of 10 years and would provide a safer and more reliable experience for passengers.

EXISTING:
River LINE Fleet

PROPOSED:
Fleet Overhaul



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$101 Million**

**Assumes overhauling 8 cars per year; includes engine repower work*

Value to Customers

- Helps provide more reliable service by reducing risk of loss of equipment due to maintenance issues
- Increases customer comfort and experience

Value to State

- Lowers operating cost by utilizing a more fuel-efficient engine
- Minimizes environmental impacts by using EPA compliant engines
- Minimizes loss in revenue from service disruptions

PROJECT SHEET RIVER LINE FLEET OVERHAUL

ESTIMATED TOTAL PROJECT COSTS

$101M

Regional Effect/Socioeconomic Sustainability
Upgraded equipment would reduce service delays and make overall River LINE service more reliable

Environmental Sustainability/Air Quality
The new engines would meet current environmental standards and provide better fuel efficiency

Business Performance/Financial Sustainability
More efficient equipment would reduce operating costs and minimize revenue loss from service disruptions

State of Good Repair
Mid-life overhauls and repairs provided to light rail vehicles would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*A mid-life overhaul of the River LINE fleet is required to **ensure operations would meet the demands** of a growing system.*

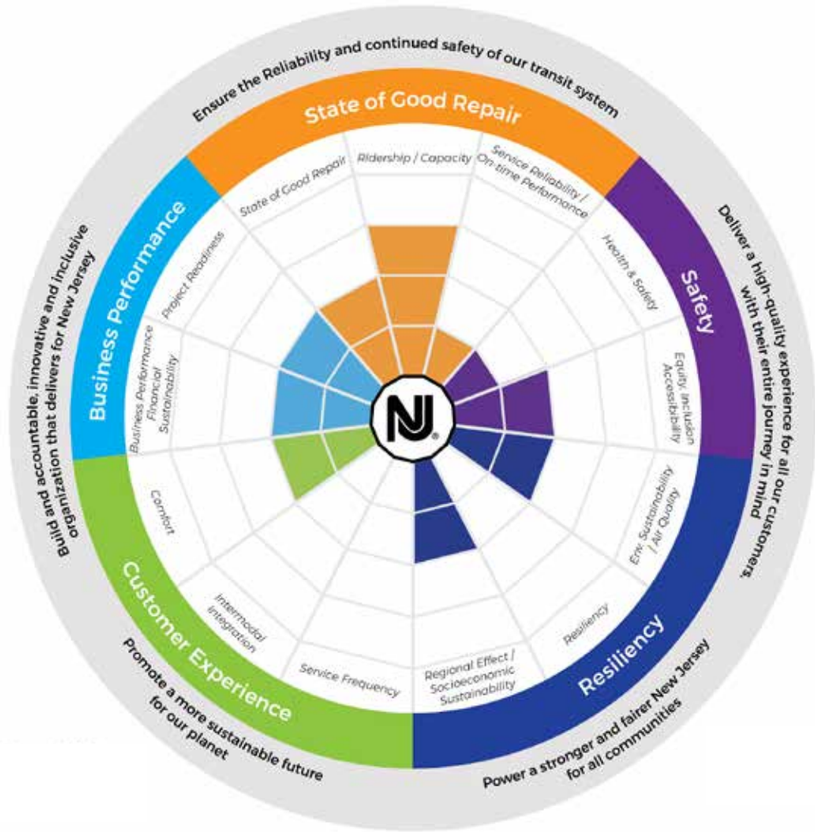
PROJECT SHEET | NEWARK LIGHT RAIL (NLR) CAPACITY ENHANCEMENT PROGRAM

Description

In 2002, the Newark City Subway system was converted from the original PCC streetcar vehicles, to the current Newark Light Rail system (NLR). The original light rail vehicles (LRVs) introduced along the NLR consisted of three-section, single-articulating units. In 2015, 35 of these LRVs were scheduled for modification from three-section, single-articulating units to five-section, double-articulating units. The anticipated ridership growth of the NLR has necessitated a further expansion of capacity.

If funded, 11 additional vehicles could be modified from three-section units to five-section units, bringing increased capacity to the NLR to meet anticipated demand. To allow for use of these longer units within the NLR system, interlockings and switch modifications near Fulton Street and Broad Street, specified and budgeted as part of NLR programmatic work, would first need to be completed. The scope of the NLR Capacity Enhancement Program could then be executed, including modification and extension of the 11 light rail vehicles, an additional new power substation, and modifications to the existing VBF yard to allow for storage of the longer LRVs.

EXISTING:
NLR Light Rail Vehicle



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$33 Million

Value to Customers

- Increases capacity and comfort on the NLR system
- Reduces delays due to overcrowding
- Enhances safety and service reliability

Value to State

- Increases capacity to meet growing ridership demand
- Increases return on investment from increased ridership

PROJECT SHEET NEWARK LIGHT RAIL (NLR) CAPACITY ENHANCEMENT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$33M

Comfort
Expanded vehicle capacity and subsequent infrastructure improvements would improve customer comfort by reducing overcrowding and delays

Regional Effect/Socioeconomic Sustainability
Increasing capacity and upgrading switches and interlockings will improve service along the entire NLR network

Ridership/Capacity
Modifying and extending light rail vehicles would expand capacity to meet anticipated demand

Business Performance/Financial Sustainability
Increasing capacity and reliability would improve business performance and return on investments

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Increasing capacity on the NLR would ***meet anticipated demand*** *while* ***improving customer comfort and service reliability****.*

PROJECT SHEET | NEWARK LIGHT RAIL (NLR) - STATION MODERNIZATION & ACCESS PROGRAM

Description

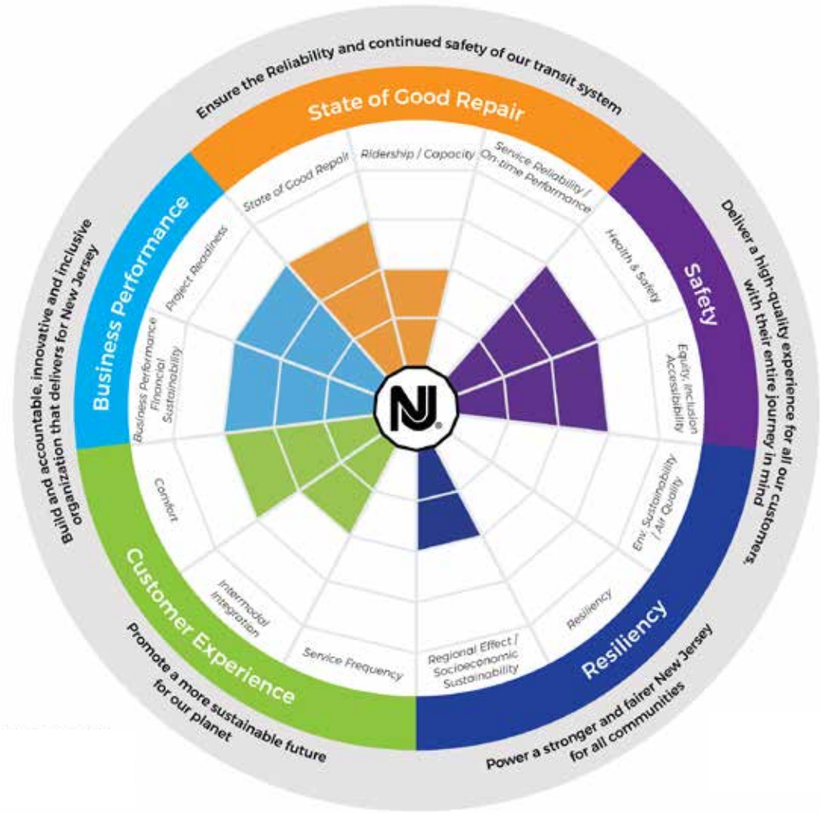
The Newark Light Rail (NLR) has twelve stations along the Grove Street Line of the original Newark City Subway System that need improvements to meet regulatory requirements, enhance customer experience, and improve business performance. Many of these stations have not been renewed since system conversion from streetcar vehicles to light rail cars in 2002.

Four NLR stations will receive accessibility improvements: Park Avenue, Norfolk Avenue, Warren Street/NJIT, and Military Park. If funded, proposed improvements at these stations would include construction of elevators, platform reconstruction, and improved station signage and communications systems.

Passenger safety enhancements at all stations across the NLR would include the introduction of Platform Edge Doors (PED) to prevent passengers on the platforms from entering track areas and getting too close to moving trains. These enhancements would not only improve safety, but also accommodate future technology upgrades.

EXISTING:
Station without Elevator Access (Norfolk Avenue)

PROPOSED: Example of elevator Access to Platform Bloomfield Ave)



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$130 Million**

**Estimate based upon concept design*

Value to Customers

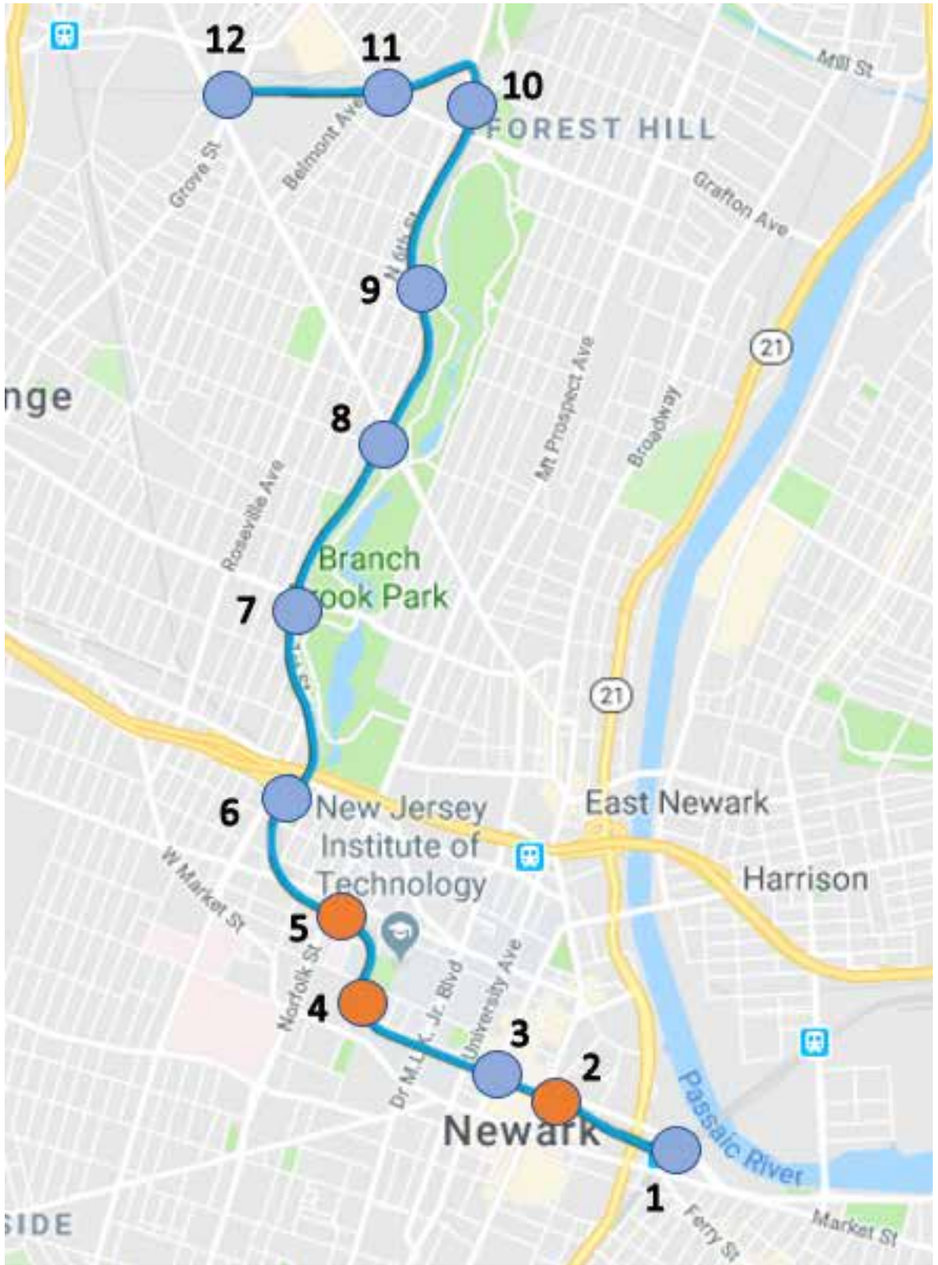
- Increases access to NLR system for passengers
- Provides access to cleaner, safer, and well-lit stations
- Enhances signage and communications to relay station information and rail service status

Value to State

- Reduces risk of accidents by inhibiting passenger entry to tracks

PROJECT SHEET | NEWARK LIGHT RAIL (NLR) - STATION MODERNIZATION & ACCESS PROGRAM

Newark Light Rail - Grove Street Line Map



Newark Light Rail Grove Street Line	Passenger Data				
Station	Average Weekday Boardings	% Per Line	General	Access	Platform Edge Doors
*1. Newark Penn **	*6225*	*34%*	*x*		*x*
2. Military Park	*1582*	*9%*	*x*	*x*	*x*
3. Washington Street	*1041*	*6%*	*x*		*x*
4. Warren Street/NJIT	*1012*	*5%*	*x*	*x*	*x*
5. Norfolk Street	*827*	*4%*	*x*	*x*	*x*
6. Orange Street	*1027*	*6%*	*x*		*x*
7. Park Avenue	*1403*	*8%*	*x*	*x*	*x*
8. Bloomfield Avenue	*1281*	*7%*	*x*		*x*
9. Davenport Street	*545*	*3%*	*x*		*x*
10. Branch Brook Park	*2174*	*12%*	*x*		*x*
11. Silver Lake	*530*	*3%*	*x*		*x*
12. Grove Street	*809*	*4%*	*x*		*x*

- **General Improvements include cleaning, sealing, painting (steel and concrete), signage, lighting, local tunnel repairs*
- ***Newark Penn Station services both NLR Grove Street and Broad Street Lines*

Legend

Opportunities to improve accessibility

PROJECT SHEET NEWARK LIGHT RAIL (NLR) - STATION MODERNIZATION & ACCESS PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$130M

Health/Safety
Reconstructed platforms, platform edge doors, and new signage would provide a safer platform experience for all

State of Good Repair
Station service life would be extended and aesthetic improvements would positively impact the station experience

Comfort
Enhanced lighting and improved wayfinding at stations would improve customer comfort

Equity, Inclusion & Accessibility
Station design would follow universal design guidelines, and elevators would be added

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Four Newark Light Rail stations would be accessible for all and Platform Edge Doors would improve safety and fare enforcement.

PROJECT SHEET | HUDSON BERGEN LIGHT RAIL (HBLR) - HOBOKEN WYE BYPASS

Description

The Hudson Bergen Light Rail (HBLR) Hoboken Wye is a level junction of the HBLR northern and southern alignments, located on elevated viaduct to the west of Hoboken Terminal. The current configuration includes two tracks from both the northern and southern HBLR alignments meeting in a “T-intersection” at the Wye, with the ability for light rail vehicles (LRVs) to move from any one approach to either of the other two. Currently, the HBLR is operating at capacity through the existing Wye Junction. The HBLR system will be subject to additional demand for train service as a result of projected overall growth in ridership, as well as the Northern and Route 440 expansions. Increasing frequencies is the only practical method of increasing HBLR service to meet anticipated growth and expansion.

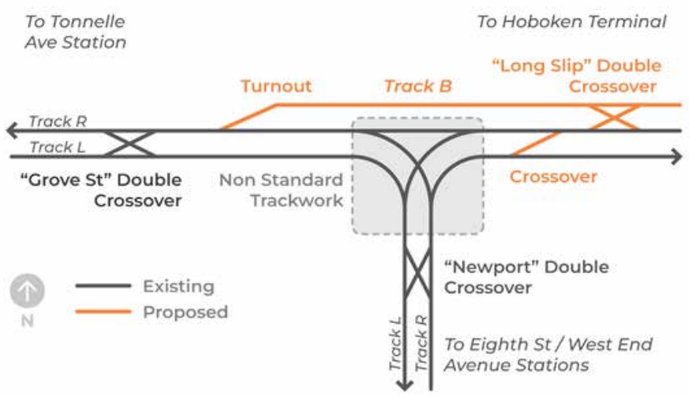
If funded, the proposed Hoboken Wye Bypass project would add a third track at the junction on a northern alignment, extending from the nearby Grove Street undergrade bridge to Hoboken Terminal, providing increased capacity to facilitate more frequent service. An integral part of the project would include a new light rail platform at Hoboken Terminal to the East. In addition, construction of a new Grove Street Station would be completed in the adjacent developing neighborhood to the West. This effort would require the reconstruction of a railroad traction substation and an easement from developer owned property. Coordination with the proposed adjacent Long Slip project and the Hoboken Terminal Restoration and Resiliency Project has been ongoing and will be essential as the Wye Bypass Track would not have utility if the alignment geometry is compromised and meaningful operating speed (minimum 15 mph) is not attained.

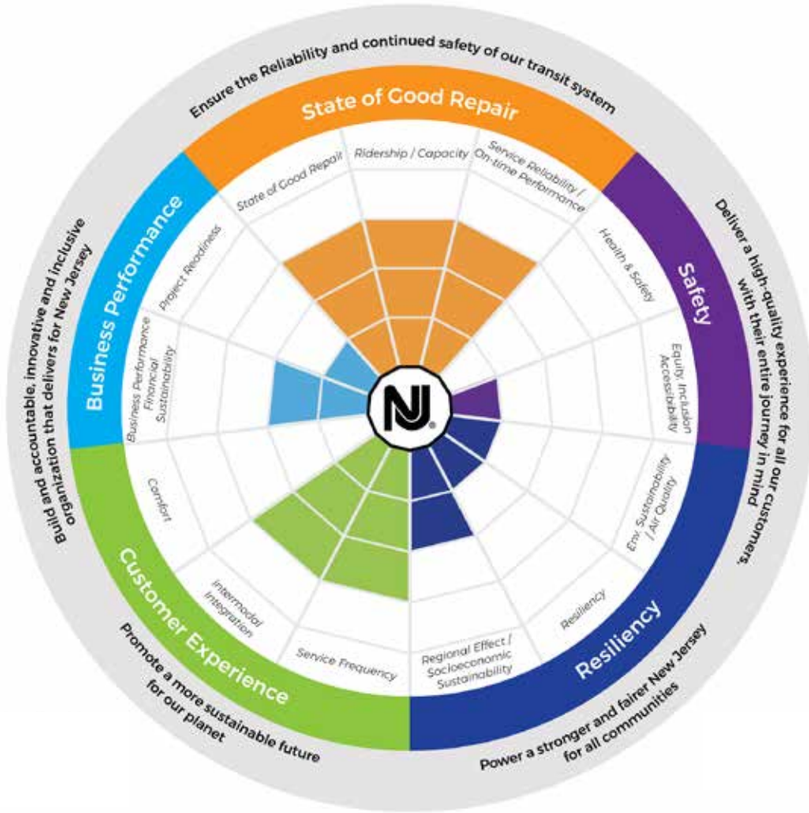
ESTIMATED PROJECT COSTS (2020 DOLLARS):

$89 Million

EXISTING:
Hoboken Wye Junction

PROPOSED:
New Bypass





Value to Customers

- Improves reliability and eliminate potential delays waiting for crossing trains at the current junction
- Provides new point of entry to HBLR

Value to State

- Provides additional capacity to meet growing demand for service

PROJECT SHEET HUDSON BERGEN LIGHT RAIL (HBLR) - HOBOKEN WYE BYPASS

ESTIMATED TOTAL PROJECT COSTS

$89M

Ridership/Capacity
The proposed bypass would increase ridership capacity to meet future growth

Intermodal Integration
The project would increase opportunities for passengers to use more than one mode on their journey through Hoboken

Service Reliability
The proposed bypass would increase service while reducing delays

State of Good Repair
New track infrastructure would increase efficiency and capacity of operations contributing positively to overall state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Addition of third bypass track would provide ***increased capacity to facilitate more frequent service***.

PROJECT SHEET | HUDSON BERGEN LIGHT RAIL (HBLR) - NORTHERN BRANCH CORRIDOR

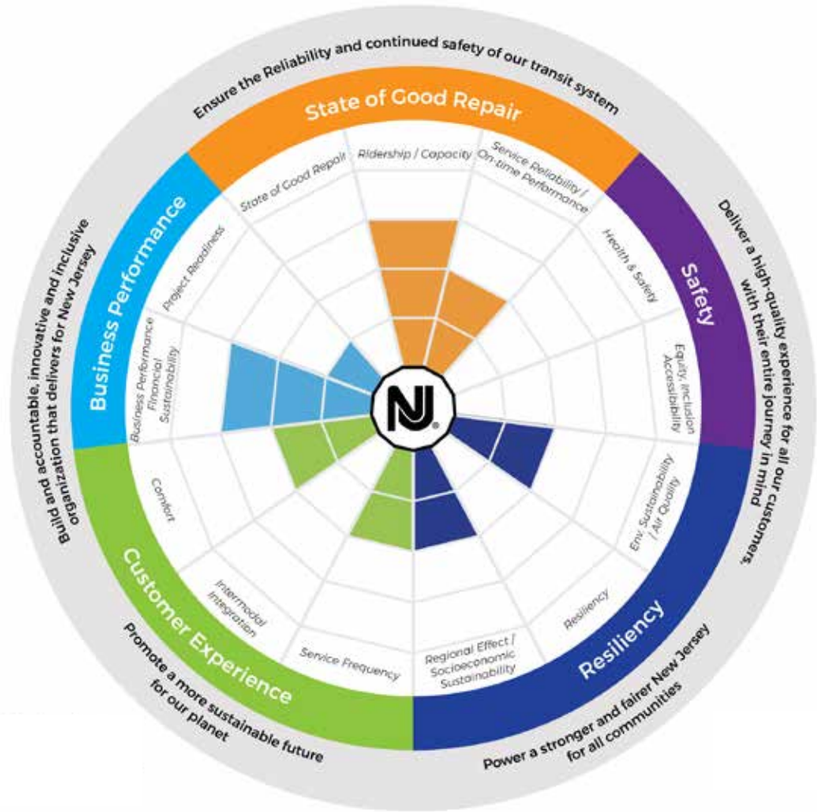
Description

The Northern Branch Corridor Project is a proposed northern extension of the Hudson-Bergen Light Rail (HBLR). Expansion of the HBLR from its current northern terminus at Tonnelle Ave in Hudson County would bring light rail service to eastern Bergen County. The proposed extension would stretch nine miles to the north, creating seven new stations along its route, terminating at the Englewood Hospital and Medical Center. Light Rail operation along the new northern branch corridor would share right-of-way that is owned by CSX, with the freight operator limiting their service to overnight hours to facilitate light rail service between 5 AM and 1 AM daily.

The project has received valuable input from the public hearing process, including comments from both the City of Englewood and the Englewood Hospital and Medical Center on the proposed expansion and new northern terminus. The project is currently proceeding through the National Environmental Policy Act (NEPA) process.

Expansion of the HBLR would significantly improve mobility within both Hudson and Bergen Counties, particularly within the project corridor, which currently features a substantial roadway-based transportation system. Improvement to the corridor's transportation network is vital to support continued economic growth to the region.

EXISTING:
Tonnelle Avenue Terminus



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$1.18 Billion

Value to State

- Attracts riders to transit by providing direct access to HBLR system for passengers within Bergen County
- Provides transportation capacity to support population and employment growth in the region
- Supports growth and development in Bergen and Hudson Counties including the Hudson River Waterfront

Value to Customers

- Provides additional travel option for travelers trying to avoid highway congestion in the region
- Improves convenience and travel time to customers in Bergen county seeking access to Hudson Harbor and connection to New York City and NJ TRANSIT regional rail via Hoboken Terminal

PROJECT SHEET | HUDSON BERGEN LIGHT RAIL (HBLR) - NORTHERN BRANCH CORRIDOR

Number	Proposed Station	Location
1	91st Street Station	North Bergen Township
2	Ridgefield Station	Ridgefield Borough
3	Palisades Park Station	Palisades Park Borough
4	Leonia Station	Leonia Borough
5	Englewood Route 4 Station	Englewood
6	Englewood Town Center Station	Englewood
7	Englewood Hospital & Medical Center	Englewood

PROJECT SHEET HUDSON BERGEN LIGHT RAIL (HBLR) - NORTHERN BRANCH CORRIDOR

ESTIMATED TOTAL PROJECT COSTS

$1.18B

Service Reliability
Additional light rail service options would reduce travel time for regional travelers as fewer connections would be needed to reach their destinations

Regional Effect/Socioeconomic Sustainability
Expansion would increase regional network connectivity while reducing transit gaps in the corridor

Ridership/Capacity
Expanding access to the light rail system would increase ridership

Business Performance/Financial Sustainability
Expanding light rail would increase potential revenue streams

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The Northern Branch HBLR expansion would **significantly improve mobility** within both Hudson and Bergen Counties.*

PROJECT SHEET | HUDSON BERGEN LIGHT RAIL (HBLR) - ROUTE 440 EXTENSION

Description

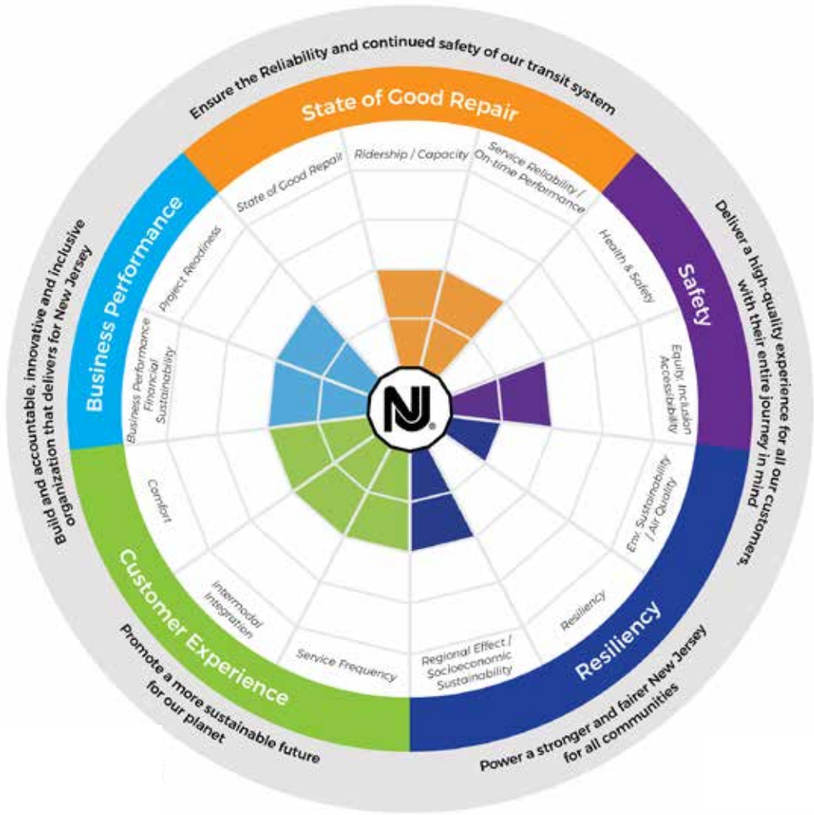
The Hudson Bergen Light Rail (HBLR) operates two routes to the south of Hoboken Terminal – the 8th Street line which terminates in Bayonne, and the West Side Avenue line which terminates in Jersey City.

The proposed HBLR Route 440 Extension Project would expand the West Side Avenue line, bringing light rail service to the west of State Route 440 and the developing western waterfront area of Jersey City. This project is in the preliminary engineering phase.

Enhancement of transit service and mobility in this location is vital to support planned residential and commercial development of the Jersey City western waterfront area, known as Bayfront, including the development of the New Jersey City University West Campus.

The proposed HBLR 440 Extension would include a 0.7-mile, two track extension on viaduct and an elevated center island platform terminal station at the northern end of the Bayfront development. The project would also include upgrades to the existing West Side Avenue Station, including access ramp enhancements, replacement of existing pedestrian bridge, stairway and elevator, and reconfiguration of the existing station parking lot.

EXISTING:
West Side Avenue Station



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$248 Million

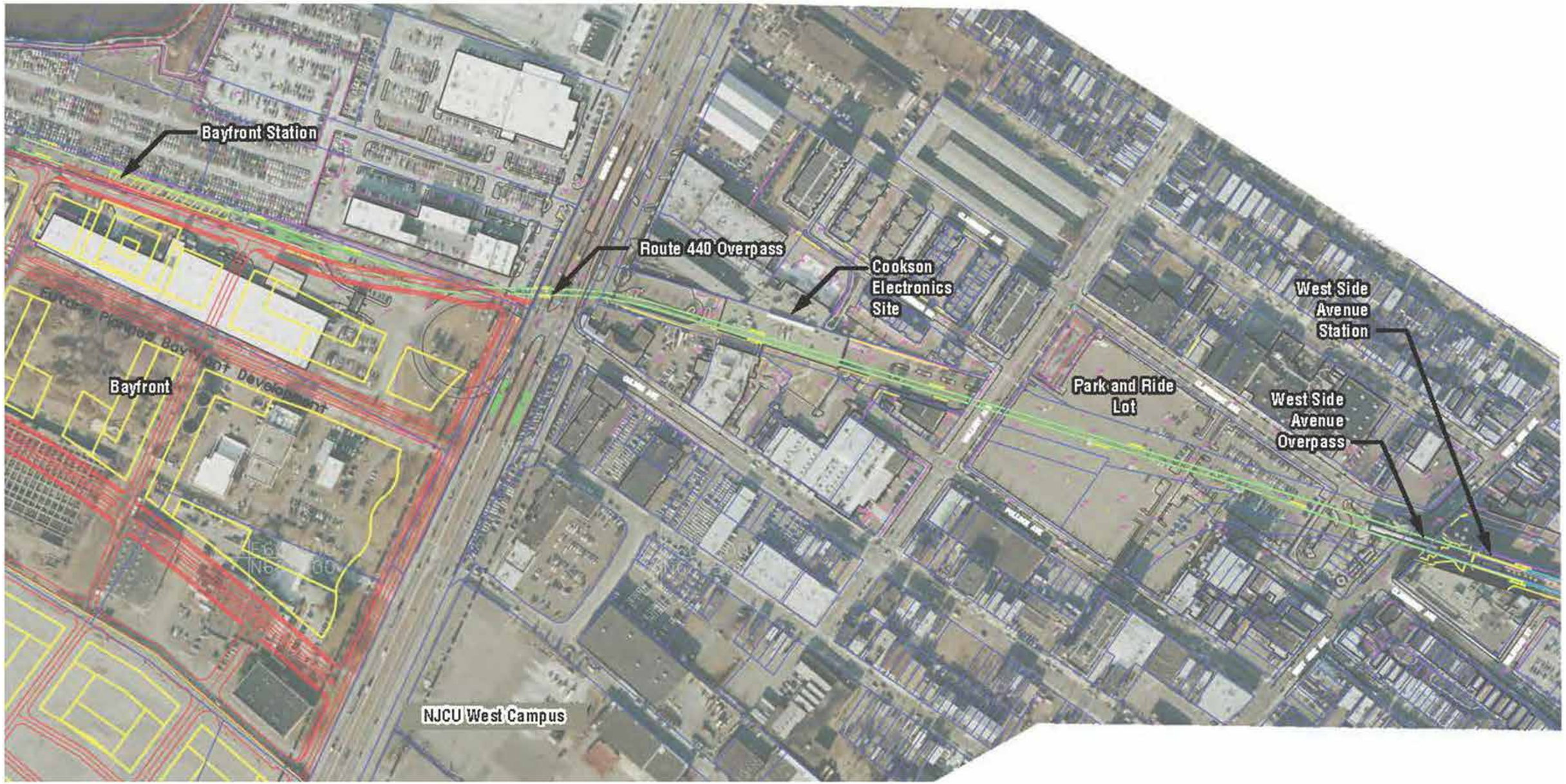
Value to State

- Attracts riders to transit by providing direct access to HBLR system for passengers within Bayfront development area
- Provides additional transportation capacity to support population and employment growth in the region
- Supports growth and development for the western waterfront area
- Provides potential diversions from automobile traffic

Value to Customers

- Provides additional travel option for travelers trying to avoid highway congestion in the region

PROJECT SHEET | HUDSON BERGEN LIGHT RAIL (HBLR) - ROUTE 440 EXTENSION



PROJECT SHEET HUDSON BERGEN LIGHT RAIL (HBLR) - ROUTE 440 EXTENSION

ESTIMATED TOTAL PROJECT COSTS

$248M

State of Good Repair
Expansion would result in upgrades to the access ramp, pedestrian bridge, stairway and elevator at the existing West Side Avenue Station

Regional Effect/Socioeconomic Sustainability
Expansion would increase regional network connectivity while reducing transit gaps along the western waterfront of Jersey City

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Ridership/Capacity
Expanding access to the light rail system would increase ridership

Business Performance/Financial Sustainability
Expanding light rail would increase potential revenue streams

*The 440 extension of HBLR would **improve regional mobility** and **compliment planned residential and commercial development**.*

PROJECT SHEET | PATERSON AVENUE GRADE CROSSING ELIMINATION

Description

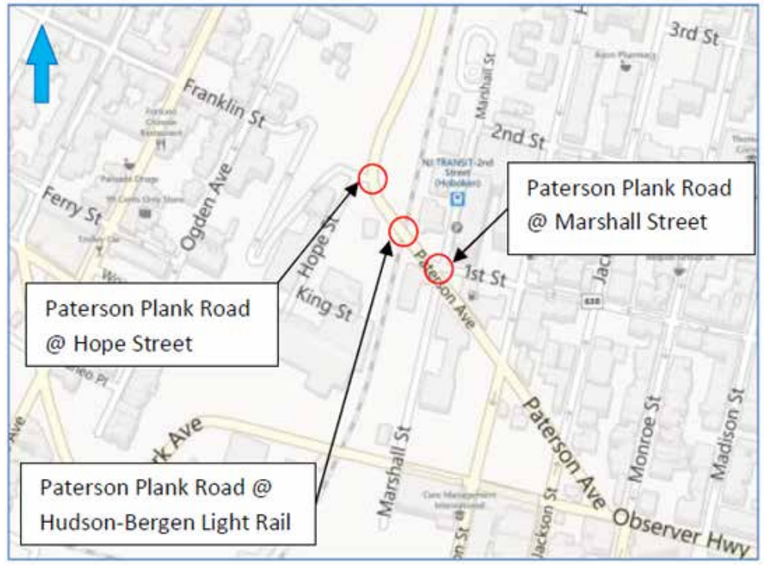
The intersection of Paterson Avenue and the Hudson Bergen Light Rail (HBLR) is a rail grade crossing at the border of the Cities of Hoboken and Jersey City. The red phase of the traffic signal is triggered when loop detectors along the tracks detect trains nearing the intersection. Previous traffic studies indicate that the crossing experiences extended red signal times for motorists when no HBLR vehicle is present. Therefore, there is an issue with the way the traffic signal system interfaces with the HBLR signals.

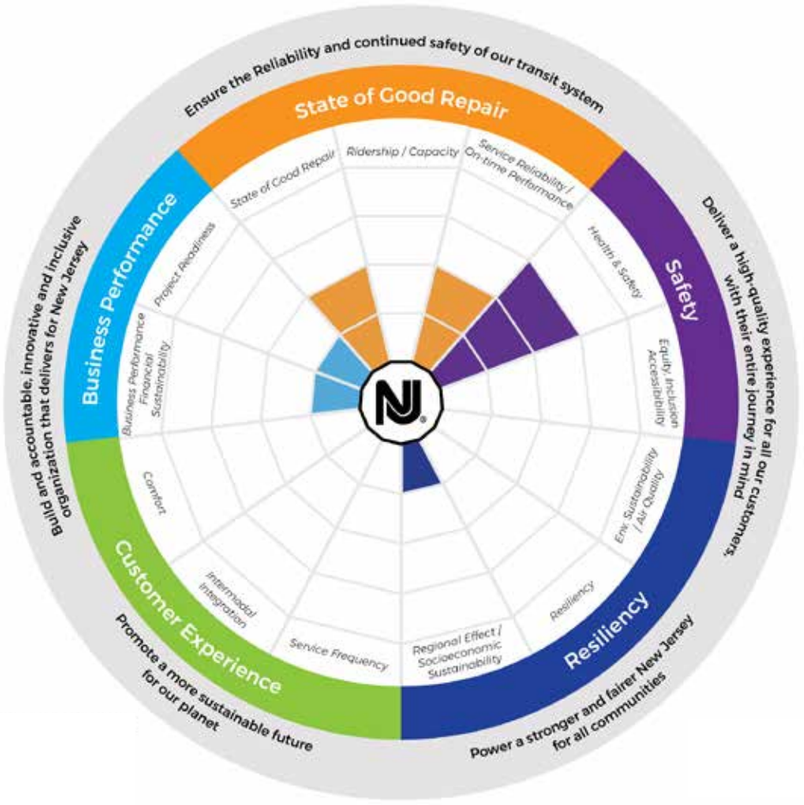
If funded, this project would remove the at-grade crossing and elevate the track bed above Paterson Avenue to eliminate conflicting traffic and the need for a traffic signal. Removing the at-grade crossing and elevating the track would include replacement of the 2nd Street Station with a new elevated structure and modern station layout.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$136 Million

EXISTING:
Paterson Avenue Grade Crossing





Value to Customers

- Improves efficiency and reliability of HBLR operations
- Improves travel time for customers in Hudson and Bergen Counties
- Eliminates excessive vehicle idling at the intersection

Value to State

- Enhances safety for pedestrians in Hudson County
- Improves traffic circulation for residents of Hudson County

PROJECT SHEET PATERSON AVENUE GRADE CROSSING ELIMINATION

ESTIMATED TOTAL PROJECT COSTS

$136M

Service Reliability
Removing the at-grade crossing would improve the on-time performance and reliability of trains as the signal system would have fewer interactions with traffic

Health/Safety
Removing the at-grade crossing would improve safety conditions for pedestrians and remove the potential for conflicts with vehicles

Business Performance/Financial Sustainability
Elevating the track infrastructure and upgrading the station layout would reduce operations and maintenance costs

State of Good Repair
Modernizing the station layout and elevating track infrastructure would improve state of good repair

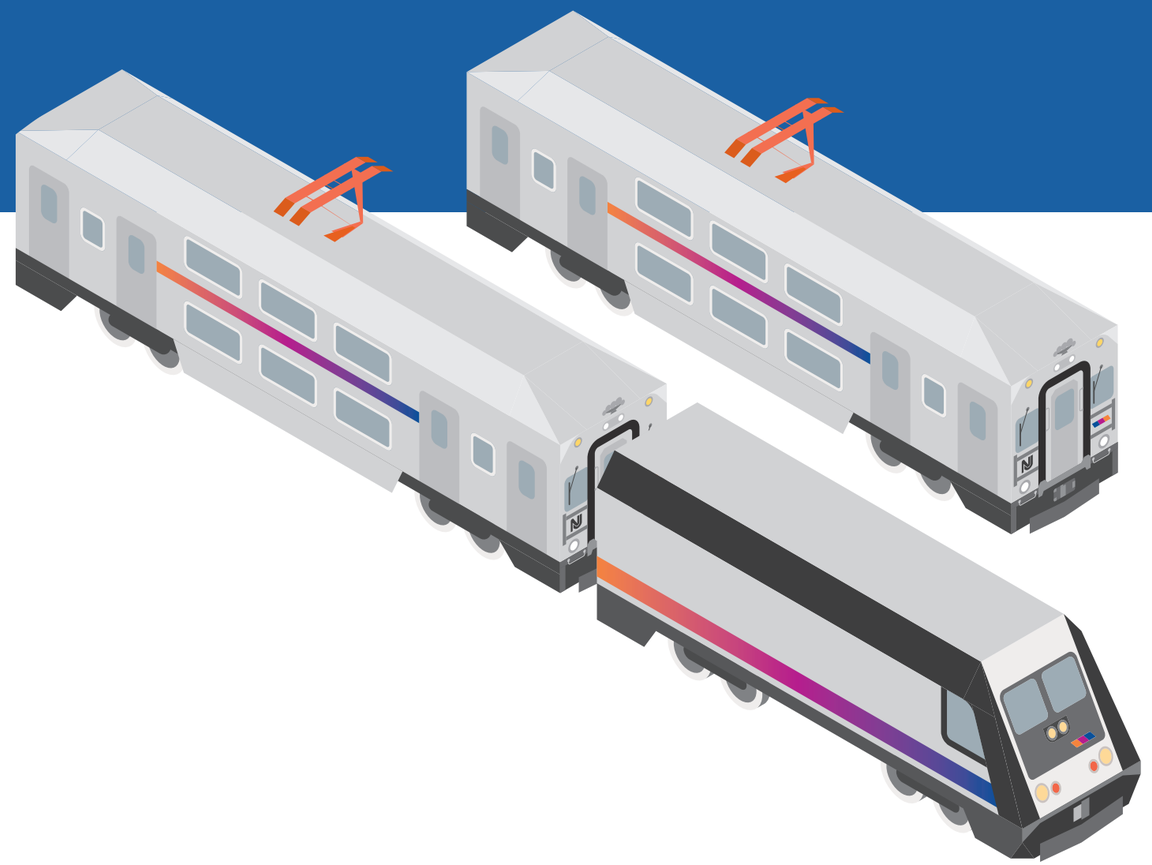
STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Removing the at-grade crossing *and* ***elevating the track bed*** *above Paterson Avenue would* ***eliminate traffic conflicts, improve service, and enhance safety****.*

Rail Fleet



PROJECT SHEET | RAIL FLEET REPLACEMENT PROGRAM

Description

There are approximately 1,100 rail cars and 179 locomotives that are part of the NJ TRANSIT rail fleet. About 680 of those rail cars are single-level; the Arrow III cars (pictured at right) date back to 1977, while other versions of the Comet single-level cars entered service in 1982, 1996 and 2002. About 430 cars are multilevel. The first iteration of Bombardier's ML1 cars went into service in 2006, while the ML2s went into service in 2012. A third version (the ML3) is scheduled to begin running in 2023. Multi-level cars can fit more passengers than the single-level cars. The multi-levels also provide higher comfort levels for passengers; new ML3s will also feature Wi-Fi access, infotainment screens, and USB charging ports.

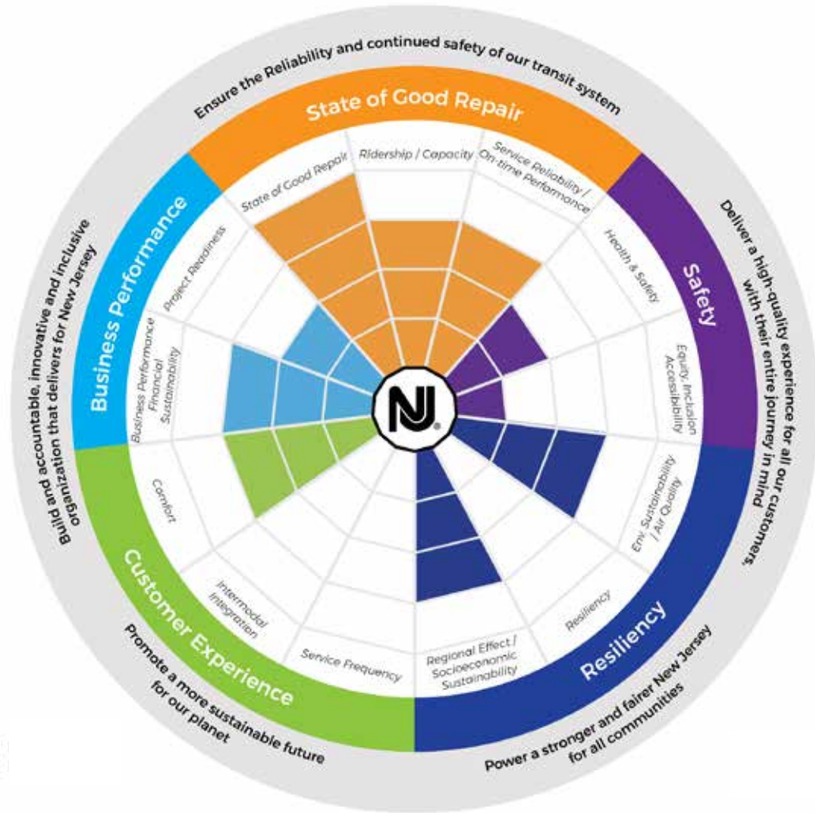
If funded, this fleet replacement program would strive to replace all of NJ TRANSIT's single-level cars with multi-levels over the next eight years. Existing ML1s and ML2s would also be overhauled during this time period to increase car efficiency and comfort. In addition, about 25 dual-power locomotives (which can run on both diesel- and electric-powered rail lines) would be added to the fleet, while about 10 diesel locomotives would be retired. These actions would ultimately reduce the average fleet age and drastically improve reliability.

EXISTING:
Single Level Fleet

PROPOSED:
New Updated Multilevel Cars

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$4.63 Billion



Value to Customers

- Increased on-time performance, safety and service reliability

Value to State

- Lowers operating expenses to enable more efficient use of public funds
- Reduces potential injuries associated with increased on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET RAIL FLEET REPLACEMENT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$4.63B

Environmental Sustainability/Air Quality
The dual-powered locomotives added to the fleet would run on both diesel and electric powered rail lines, reducing emissions and improving air quality

Comfort
New rail cars would be equipped with modern amenities to maximize customer experience and comfort

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Promote a more sustainable future for our planet

Business Performance/Financial Sustainability
Maintenance and operations expenses would be reduced as service performance increases with new vehicles

State of Good Repair
Reducing the average age of the rail fleet vehicles and decreasing equipment failure occurrences would improve state of good repair

*The rail fleet replacement program would lead to an **increase of about 40 rail cars** and **15 locomotives for** the fleet while **improving customer experience and air quality**.*

PROJECT SHEET | TRAIN BATTERY PILOT

Description

Trains currently running along NJ TRANSIT rail lines are either powered with diesel fuel-powered engines or with electrified overhead catenary wires. Diesel engines are less efficient in providing power to the trains while research shows they increase carbon emissions. Powering cars using overhead catenary wires is similarly less efficient because electricity must flow along a series of catenary lines, which dissipates energy as it travels. Adding battery storage capacity allows for further savings via energy capture through regenerative braking, which is currently not possible with existing rolling stock design. Additional benefits include the ability to run electric trains where existing catenary power supply is disabled due to extreme events, or depowered for service.

If funded, the Train Battery Pilot project would test the use of batteries to power existing NJ TRANSIT trains. Lithium-ion batteries are being studied for acquisition to be installed either as battery support tender cars, or directly into passenger carrying rolling stock. Pilot non-revenue runs are currently contemplated to be run along either the North Jersey Coast Line between Bay Head and Long Branch using retrofitted multilevel cars. This portion of the North Jersey Coast Line does not have a traction power system, so the contemplated method of operation would allow single-seat rides from Newark or New York to Bay Head where the consist could recharge in the traction electrified section from Long Branch to New York. The pilot project would be the first step towards transitioning to a cleaner, more efficient technology that will reduce energy costs for NJ TRANSIT and bring potential environmental benefits.

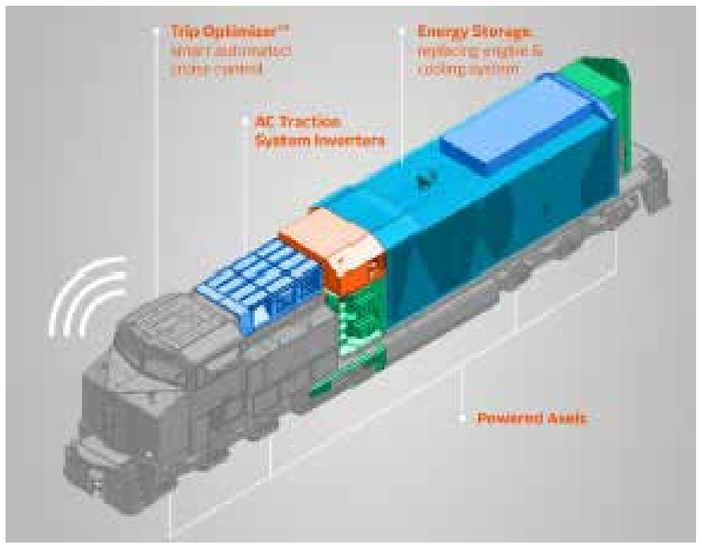
ESTIMATED PROJECT COSTS (2020 DOLLARS):

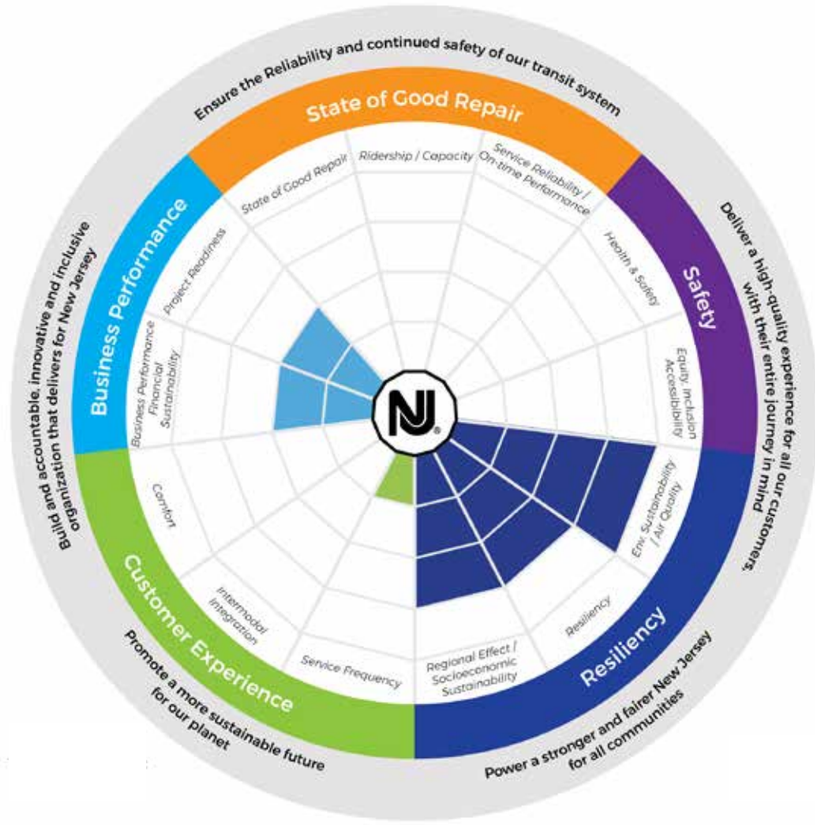
***$46 Million**

**Estimates are based upon concept for design*

EXISTING:
Arrow III EMU Cars

PROPOSED:
Battery Powered Locomotive





Value to Customers

- Increases reliability of service

Value to State

- Lowers operating cost by providing more efficient power generation
- Minimizes environmental impacts increased ridership

PROJECT SHEET TRAIN BATTERY PILOT

ESTIMATED TOTAL PROJECT COSTS

$46M

Business Performance/Financial Sustainability
Transitioning to battery power would reduce energy costs and mitigate revenue loss from power outages

Regional Impact/Socioeconomic Sustainability
Piloting battery power would pave the way for the full rail system to transition in the future

STRATEGIC GOALS MET

Promote a more sustainable future for our planet

Ensure the reliability and continued safety of our transit system

Environmental Sustainability/Air Quality
Beginning the transition to battery power is the first step in lowering carbon emissions

Resiliency
Battery power would reduce the rail system's vulnerability to service disruptions resulting from power outages

*Investing in **emerging technology** would allow NJ TRANSIT to be more **capable to adopt state-of-art systems**.*

PROJECT SHEET | MACHINE VISION IMPLEMENTATION PROGRAM

Description

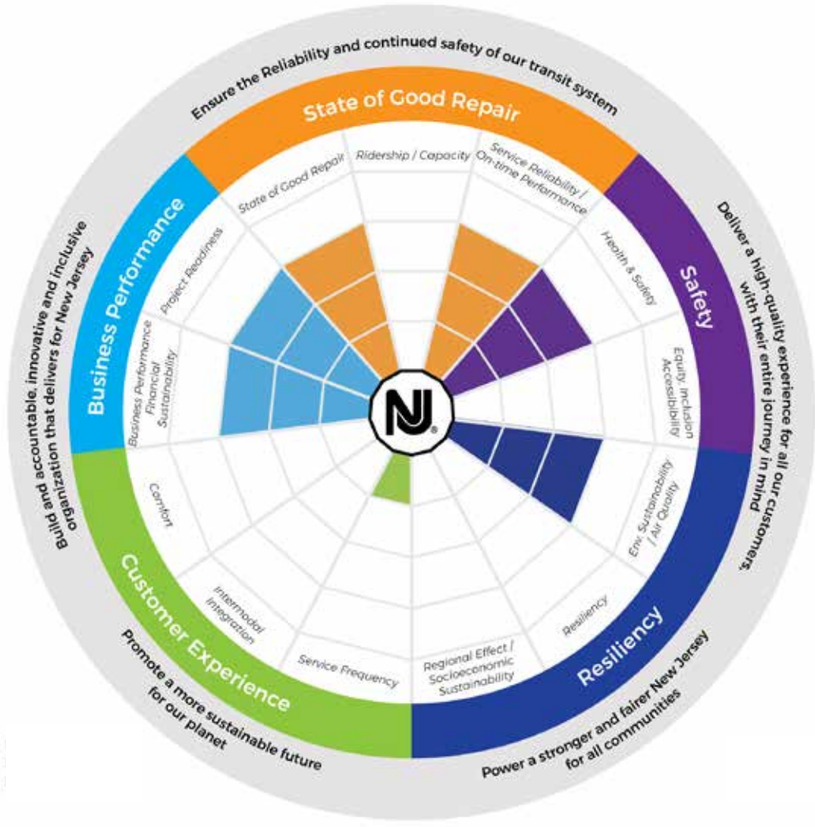
NJ TRANSIT must provide consistently reliable service to its customers along all its rail lines. To ensure this, the agency frequently inspects all revenue fleet vehicles and maintains them as needed to keep them in a state of good repair. Typically, rolling stock is removed from service and placed over pedestal pits, which are used to inspect the undercarriage of the multi-level train cars and to perform maintenance on all train car types. These pits are located at various rail yards and therefore the trains must be directed to one of the yards whenever an inspection is required. This procedure is time consuming and requires additional cost and resources to perform.

If funded, this project would install Machine Vision devices on existing NJ TRANSIT tracks. As trains run over the device, the device would automatically assess the condition of critical train components, such as the wheel profile and brake conditions. This information would then be sent to the maintenance department to determine if a train car needs to be sent to a yard. These devices would be strategically placed in locations that experience frequent train traffic, such as at the tracks east of the East End interlocking, which supports all trains in and out of Hoboken Station. Implementation of Machine Vision would allow NJ TRANSIT to more efficiently monitor the condition of its rail fleet and would decrease the need to send cars to rail yards for inspection, thus increasing uptime for the revenue rolling stock.

PROPOSED:
Machine Vision Device

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$32 Million



Value to Customers

- Increases reliability of service

Value to State

- Lowers operating cost by providing more efficient power generation
- Minimizes environmental impacts increased ridership

PROJECT SHEET MACHINE VISION IMPLEMENTATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$32M

Health/Safety
Placing monitoring devices in strategic locations would increase rail safety

State of Good Repair
Upgrading monitoring equipment would improve fault detection to minimize potential damage.

Service Reliability
Enhanced monitoring would prevent train malfunctions and delays

Business Performance/Financial Sustainability
Enhanced monitoring would lead to better maintained and utilized rail vehicles

STRATEGIC GOALS MET

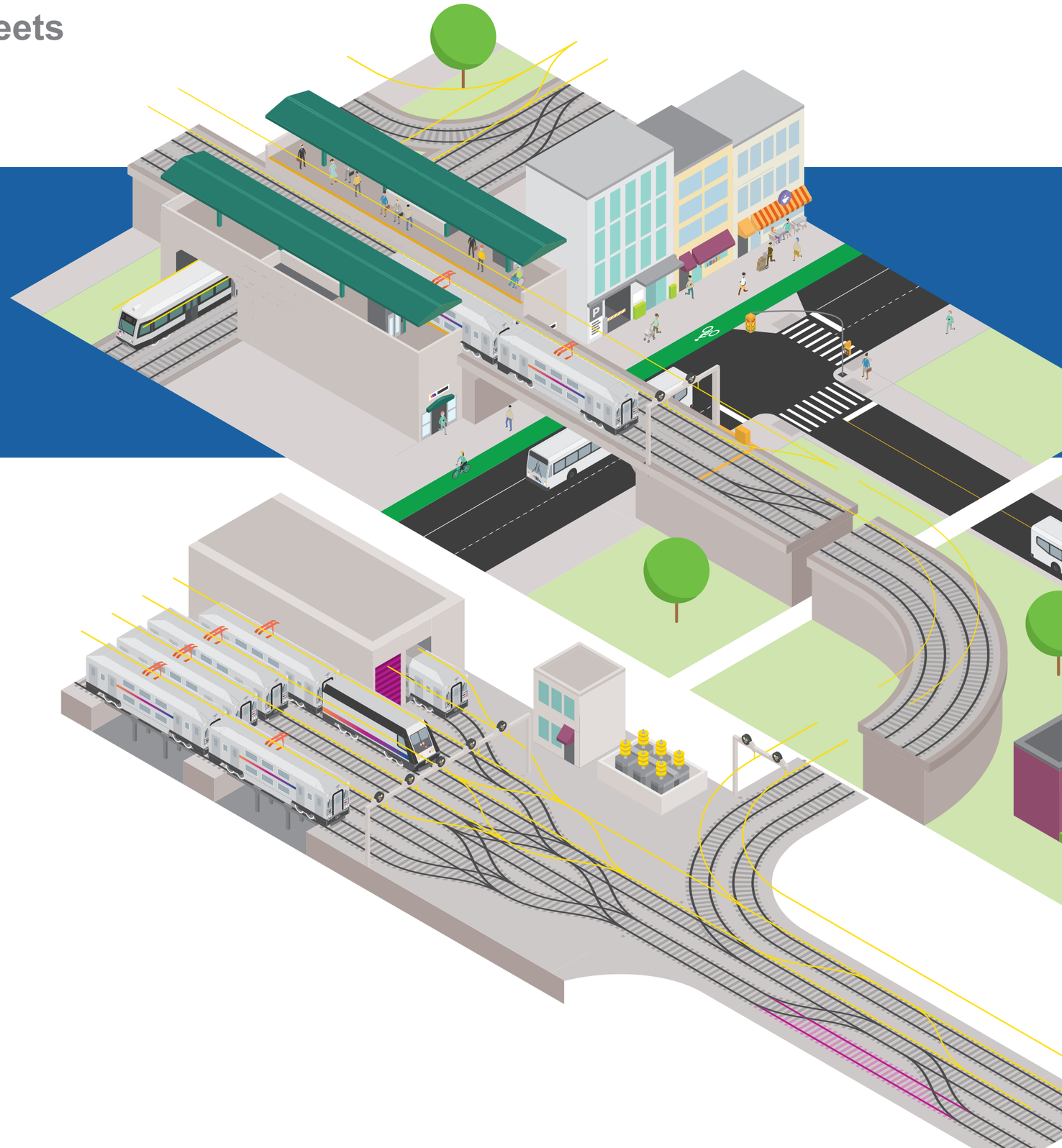
Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Monitoring devices would be ***strategically placed to find potential faults before they disrupt service***.

Appendix B Capital Plan Project Sheets

Rail Infrastructure



PROJECT SHEET | RARITAN RIVER BRIDGE REPLACEMENT

Description

The Raritan River Bridge spans 2,920 feet over the Raritan River carrying the NJ TRANSIT North Jersey Coast Line between Perth Amboy and South Amboy. The existing bridge was originally constructed in 1908 (112-years old) and features a movable swing span. The existing bridge has a low vertical profile, and, as a result, is at high risk of damage from extreme weather events. During Superstorm Sandy the existing bridge became submerged and was severely damaged, resulting in an 18-day outage for both rail service and marine traffic as the bridge was realigned and repaired. While several repair and rehabilitation contracts to keep the bridge in service have been executed, the movable span exhibits frequent operational issues as excessive maintenance costs continue to escalate with the bridge approaching the end of its useful life. In addition to the extreme event risks and recurring maintenance issues, the bridge is subject to frequent marine vessel collisions due to the poor channel geometry at its swing span.

If funded, the project would include a new off-line replacement of the existing obsolete bridge with a new, two track vertical lift bridge on an improved vertical alignment. The new movable structure would provide a more resilient structure with additional vertical clearance above the 100-year flood elevation. The introduction of new mechanical and electrical systems would provide for more reliable movable span operations, resulting in reduced maintenance costs from current thresholds. In addition, improved navigation channel geometry at the lift span would significantly reduce risk of vessel collision with the bridge's pier protection systems and associated costly repairs.

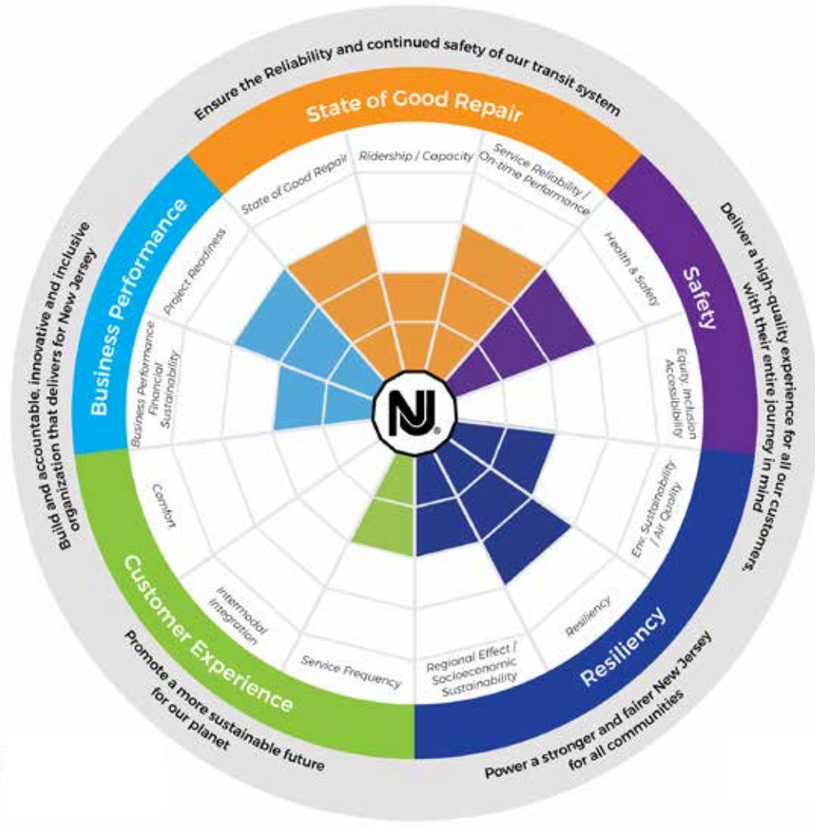
ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$595 Million**

**Total estimated 2020 project cost indicates total cost over span of the project and includes funds already spent*

EXISTING:
Swing Bridge

PROPOSED:
New Vertical Lift Bridge



Value to Customers

- Less disruption to service associated with operational issues and/or excessive maintenance work
- Safer navigation for marine users

Value to State

- Reduces repair, rehabilitation, and maintenance expenses to enable more efficient use of public funds
- Substantially reduces risk of major disruption or outage due to extreme weather events

PROJECT SHEET RARITAN RIVER BRIDGE REPLACEMENT

ESTIMATED TOTAL PROJECT COSTS

***$595M**

**TOTAL ESTIMATED 2020 PROJECT COST INDICATES TOTAL COST OVER SPAN OF THE PROJECT AND INCLUDES FUNDS ALREADY SPENT*

Health & Safety
North Jersey Coast Line trains that travel over the bridge would experience fewer risks from bridge closings

Service Reliability
Once replaced, the bridge would be more reliable for rail operations during both normal weather and extreme events

Resiliency
The new bridge would clear the 100-year flood elevation and is a more resilient structure

State of Good Repair
Replacing the 112-year old bridge with a new and resilient bridge would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Bridge replacement would add **more reliable movable span** operations resulting in **reduced maintenance costs**.*

PROJECT SHEET | OVERHEAD BRIDGE REPLACEMENT PROGRAM

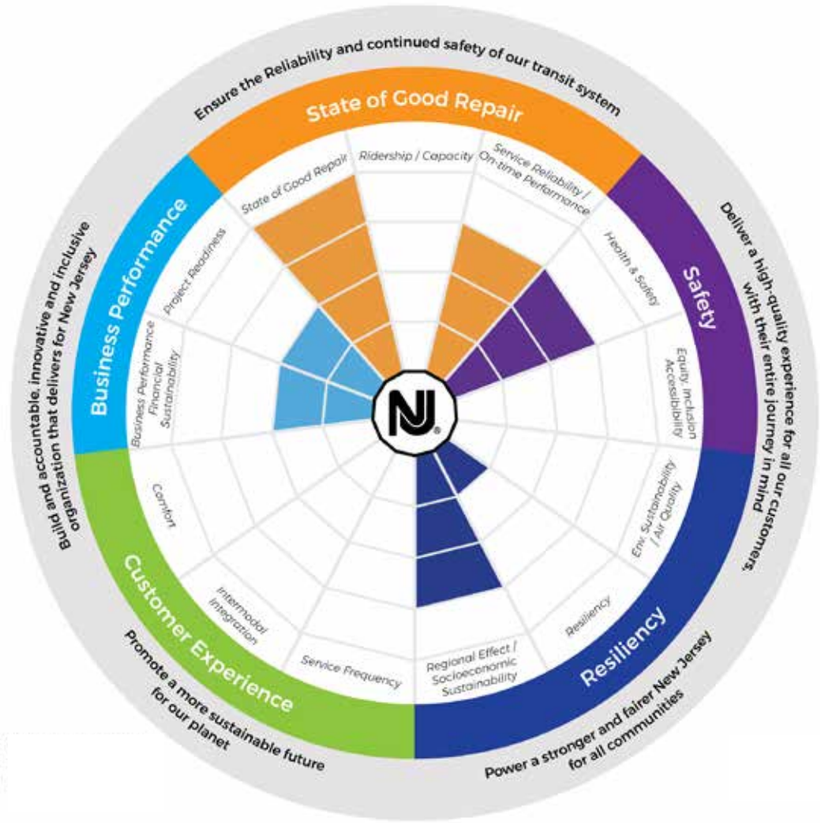
Description

NJ TRANSIT maintains over 100 overhead bridges, which support roadways and walkways over various NJ TRANSIT rail lines throughout the state. Numerous structures on the NJ TRANSIT rail system have well exceeded their anticipated service life. As the age of these structures continues to advance, maintenance costs have escalated.

If funded, the Overhead Bridge Replacement Program would establish a delivery process that would identify and prioritize the replacement of bridges in most dire need of attention. Four bridges would be selected each year for advancement into the NJ TRANSIT capital delivery process. The program would establish a plan to eventually replace all overhead bridges on the NJ TRANSIT system to restore them to a state of good repair and reduce the age of each bridge to within its estimated service life of 75 to 100 years.

EXISTING:
Overhead Bridge

PROPOSED:
New Overhead Bridge



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$40 Million**

**Design/Construction cycles to repeat per year*

Value to Customers

- Increased on-time performance, safety, and service reliability

Value to State

- Lowers operating expenses hence more efficient use of public funds
- Reduces potential injuries associated with increased on-site maintenance work

PROJECT SHEET OVERHEAD BRIDGE REPLACEMENT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

***$46M**

**5 YEAR PROJECT COSTS*

Service Reliability
New bridges would require less repairs and would increase service reliability

Health/Safety
New bridges would bring the average age of the structures back to a safe margin within the desired service life

Regional Impact/Socioeconomic Sustainability
The decrease in the age of the bridges would support the network by reducing delays due to operational or structural issues

State of Good Repair
Replacing all overhead bridges would reduce the overall age of bridges

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*This program would **establish a plan to replace all overhead bridges on the NJ TRANSIT system to restore them to a state of good repair**.*

PROJECT SHEET | NEWARK DRAW BRIDGE REPLACEMENT & CAPACITY ENHANCEMENT

Description

The Newark Draw Bridge carries NJ TRANSIT's Morris & Essex, Gladstone, and Montclair-Boonton lines over the Passaic River in Newark. The existing swing bridge was constructed in 1903 and is 117 years old. Given its age, the bridge has exceeded its anticipated service life of 75 years and maintenance expenses have begun to escalate due to advanced deterioration and increased component failure. The bridge is also an operational bottleneck, since it only carries two tracks, while rail right-of-way to the east and west both carry three tracks. In addition to the bottleneck condition, delays are also caused by signal issues and track outages required for maintenance and repairs. Overtime pay is often necessary for maintenance work since track outages are not possible during congested peak hours.

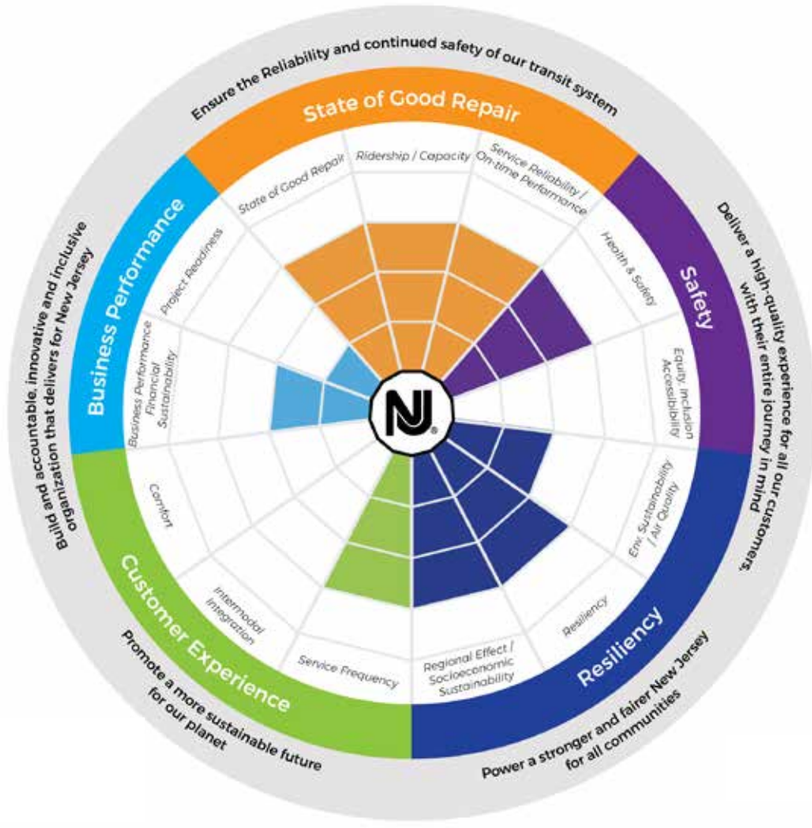
If funded, replacing the bridge with a more reliable, three track bridge would provide capacity enhancement and increase operating efficiency on the Morris and Essex, Gladstone, and Montclair-Boonton Lines to catch up to and meet future ridership growth. Further research into the latest minimum vertical clearance requirements for maritime vessels per the United States Coast Guard would be necessary to determine whether the existing vertical lift bridge could be replaced with a more economical and reliable fixed bridge.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$676 Million

EXISTING:
Newark Draw

PROPOSED:
New Bridge



Value to Customers

- Increases on-time performance, safety, and service reliability
- Creates track redundancy and increases capacity allowing system to accommodate ridership growth and to provide more reliable service for a longer period

Value to State

- Lowers operating expenses and enables more efficient use of public funds
- Reduces potential injuries by decreasing on-site maintenance work

PROJECT SHEET NEWARK DRAW BRIDGE REPLACEMENT & CAPACITY ENHANCEMENT

ESTIMATED TOTAL PROJECT COSTS

$676M

Ridership/Capacity
The three track bridge would increase capacity and accommodate future ridership growth

Regional Impact/Socioeconomic Sustainability
The new bridge would improve operating efficiency across three of NJ TRANSIT's rail lines

Resiliency
Redundancy with the third track would allow for quicker system recovery

State of Good Repair
Replacing the obsolete bridge with a three-track bridge would reduce maintenance cost and frequency

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Replacing the bridge would **enhance capacity** and allow service to **keep up with ridership growth**.*

PROJECT SHEET | UNDERGRADE BRIDGE REPLACEMENT PROGRAM

Description

NJ TRANSIT maintains 612 undergrade bridges, including 537 structures which support operating rail lines over various roadways, streams and other features throughout the state. Numerous structures on the NJ TRANSIT rail system date back to the late 19th century and have well exceeded their anticipated service life. As the age of these structures continues to advance, maintenance costs have escalated.

If funded, the Undergrade Bridge Replacement Program would establish a delivery process that would identify and prioritize the replacement of bridges in most dire need of attention. Four to eight bridges would be selected each year for advancement into the NJ TRANSIT capital delivery process. The program would establish a plan to eventually replace all undergrade bridges on the NJ TRANSIT system to restore them to a state of good repair and reduce the age of each bridge to within its estimated service life of 75 to 100 years.

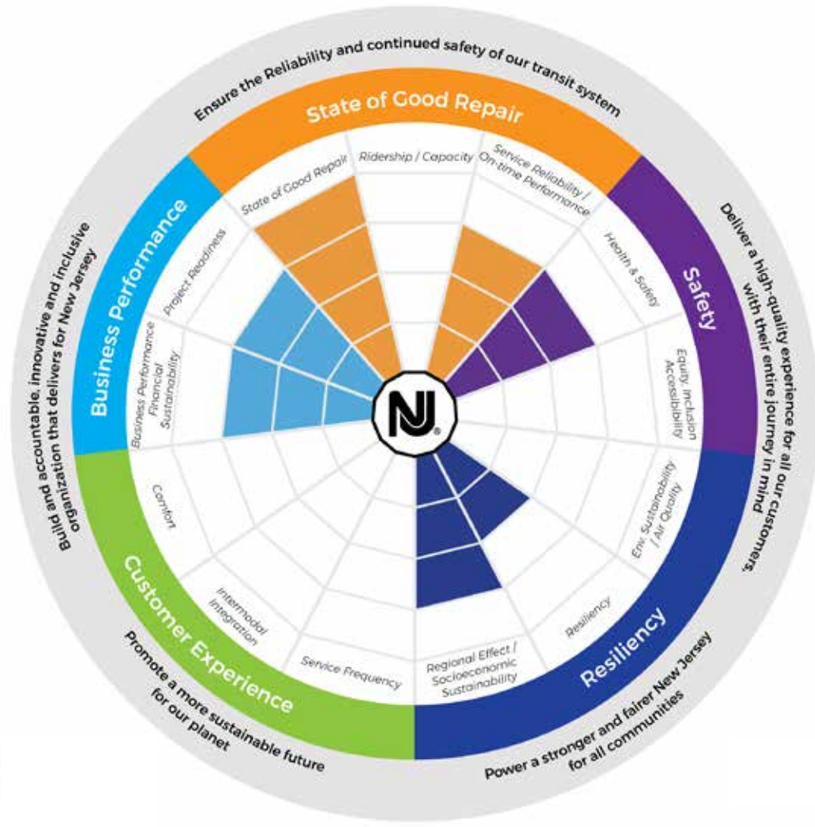
ESTIMATED PROJECT COSTS (2020 DOLLARS):

$90 Million

**Design/Construction cycles to repeat per year*

EXISTING:
Undergrade Bridge

PROPOSED:
New Undergrade Bridge



Value to Customers

- Increased on-time performance, safety, and service reliability

Value to State

- Lowers operating expenses hence more efficient use of public funds
- Reduces potential injuries associated with increased on-site maintenance work

PROJECT SHEET UNDERGRADE BRIDGE REPLACEMENT PROGRAM

ESTIMATED TOTAL PROJECT COSTS

***$103M**

**5 YEAR PROJECT COSTS*

Business Performance/Financial Sustainability
New undergrade bridges would reduce maintenance costs and reduce associated track outages

Health/Safety
New undergrade bridges requiring less maintenance would improve worker safety as fewer workers be needed on site

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Replacing all undergrade bridges beyond their useful service life would improve state of good repair

Regional Impact/Socioeconomic Sustainability
Replacing undergrade bridges would reduce delays and eliminate speed restrictions on deficient bridges

*Replacing undergrade bridges would **positively impact rail service** and **state of good repair**.*

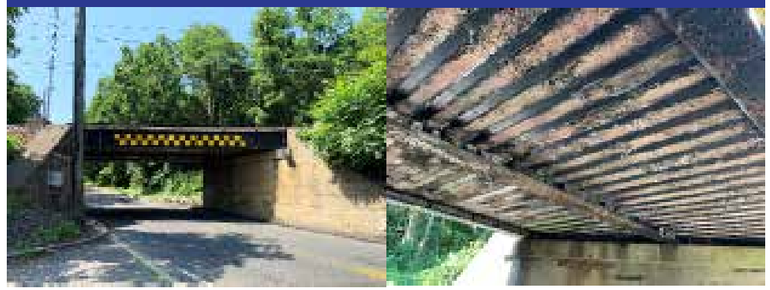
PROJECT SHEET | SOUTH LAUREL AVENUE BRIDGE REPLACEMENT & CLEARANCE IMPROVEMENT

Description

The South Laurel Avenue (CR52) Bridge in Middletown carries two electrified tracks on the North Jersey Coast Line over a two-lane county road. The bridge provides a 29-foot curb-to-curb horizontal clearance for traffic traveling on the roadway below, with no room for sidewalks, shoulders, or a bikeway. This creates a horizontal pinch point for traffic that reduces the roadway capacity and increases traffic issues through the corridor. Similarly, the bridge only provides a 12'-5" vertical clearance between the roadway and the bottom of the bridge steel girders. This substandard clearance results in the bridge being frequently hit by truck traffic, causing damage and train delays until emergency repairs are completed.

If funded, this project would replace the existing bridge with a longer span bridge to improve the horizontal clearance of the roadway below. The new bridge would also be designed to help increase the vertical clearance to eliminate truck impacts on the superstructure. This project would be coordinated with Monmouth County and its roadway improvement project. Ultimately, these improvements would not only benefit the county road by increasing its capacity and reducing traffic buildup, but they would mitigate NJ TRANSIT service disruptions caused by truck collisions with the bridge and reduce the need for emergency repairs.

EXISTING: Bridge Conditions



PROPOSED: Superstructure Alternatives

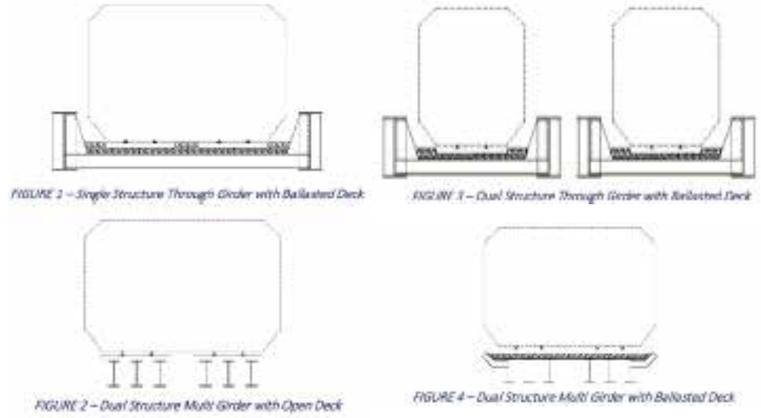
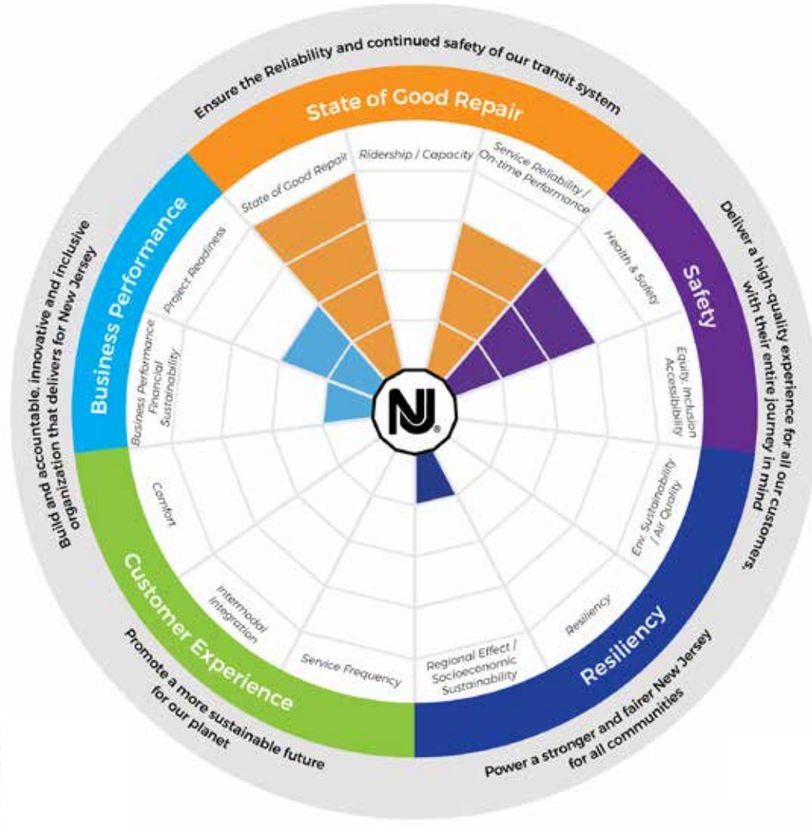


FIGURE 1 – Single Structure Through Girder with Ballasted Deck

FIGURE 3 – Dual Structure Through Girder with Ballasted Deck

FIGURE 2 – Dual Structure Multi Girder with Open Deck

FIGURE 4 – Dual Structure Multi Girder with Ballasted Deck



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$47 Million**

**Cost estimate assumes new raised bridge on same alignment*

Value to Customers

› Reduces train delays from vehicular collisions and emergency bridge repairs

Value to State

› Decreases maintenance and repair costs

PROJECT SHEET SOUTH LAUREL AVENUE BRIDGE REPLACEMENT & CLEARANCE IMPROVEMENT

ESTIMATED TOTAL PROJECT COSTS

$47M

Service Reliability
Improving clearance would reduce delays caused by vehicle collisions with the bridge

Regional Impact/Socioeconomic Sustainability
Eliminating service disruptions and emergency repairs due to collisions would improve North Jersey Coast Line service

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Bridge replacement and clearance improvement would reduce maintenance frequency and costs

Health/Safety
Improvements would prevent vehicle collisions and provide safer travel for motorists, pedestrians, and bicyclists

Improving the roadway and increasing clearance would ***significantly improve safety and service reliability****.*

PROJECT SHEET | BRIELLE DRAW REPLACEMENT AND CAPACITY ENHANCEMENT

Description

Brielle Draw is a 1,200-foot long bridge with a rolling lift movable span that carries the NJ TRANSIT North Jersey Coast Line over the Manasquan River between the Boroughs of Brielle and Point Pleasant. The existing bridge was originally constructed in 1911 and is 109 years old. The structure carries a single track over the river creating an operational bottleneck, as the right-of-way to both the north and south carries two tracks. This bridge has greatly exceeded its anticipated service life of 75 years, and maintenance expenses have escalated due to the increased frequency of component failure. The bridge piers also exhibit significant scour and undermining which has resulted in the structure's ongoing settlement. Given the poor condition of the structure, train speeds are currently restricted to 20 mph. Maintenance work requires premium pay as track outages are not possible during service hours without complete service suspension. Also, the low profile of the existing structure to the river creates an extremely high flood risk.

If funded, this project would replace the existing bridge with a more reliable, double track movable bridge, on a higher vertical profile. The increased rail capacity on the bridge would provide corridor enhancement and improved operational efficiency on the North Jersey Coast Line while reducing operating costs. The raised profile would reduce the number of required marine openings, thereby reducing service disruptions, while also mitigating the risk of flood damage and potential for extended service outages during extreme events.

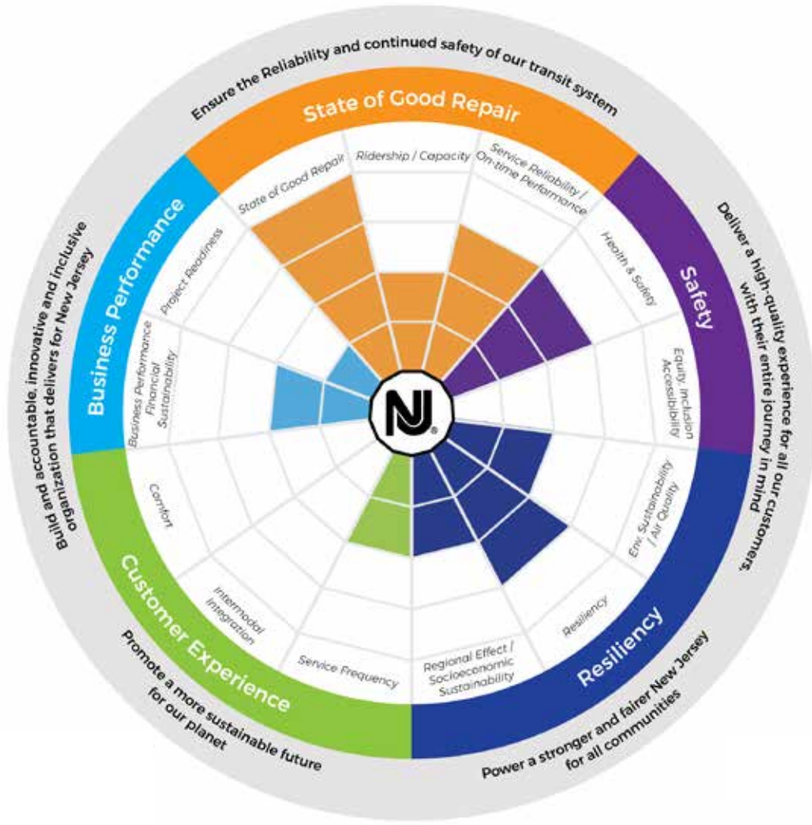
ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$204 Million**

**Estimates are based upon concept for design*

EXISTING:
Brielle Draw

PROPOSED:
New Bascule Bridge



Value to Customers

- Increases on-time performance, safety, and service reliability

Value to State

- Lowers operating expenses to enable more efficient use of public funds
- Reduces potential injuries by decreasing on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET BRIELLE DRAW REPLACEMENT AND CAPACITY ENHANCEMENT

ESTIMATED TOTAL PROJECT COSTS

$204M

Health & Safety
Mitigates risk of flood damage to the bridge while increasing safe speeds for trains

Service Reliability
Increased vertical height would reduce bridge openings and allow higher speeds so trains can better meet their schedules

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Resiliency
A raised bridge would reduce flood risk and flood scour resistant track would allow for quicker system recovery

State of Good Repair
Replacing the bridge with modern, more reliable and efficient technology would improve state of good repair

*A new bridge would be **reliable**, **increase rail capacity**, and **resilient to weather events** and **train breakdowns**.*

PROJECT SHEET | HX DRAW BRIDGE REPLACEMENT

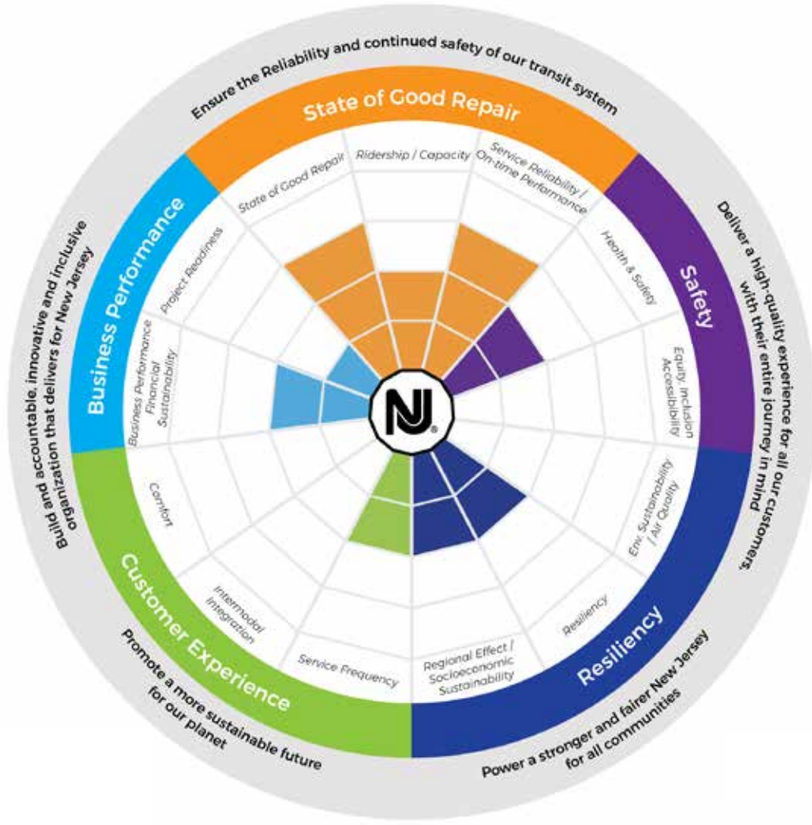
Description

HX Draw is a ±1,100-foot long bridge that carries the NJ TRANSIT Bergen County and Pascack Valley Lines over the Hackensack River between Secaucus and East Rutherford. The existing double track, overhead counterweight Strauss bascule bridge was originally constructed in 1911 and is 109 years old. Given its age, the bridge has exceeded its anticipated service life of 75 years and maintenance expenses have begun to escalate due to advanced deterioration and component failure. In addition, the structure provides minimal vertical clearance for maritime traffic, resulting in frequent bridge openings that are disruptive to rail operations.

If funded, this project would replace the existing river crossing with a more reliable movable bridge that would reduce operating and maintenance costs while extending overall service life. The vertical profile for the new bridge would be raised as much as is practicable to increase vertical clearance for navigable vessels and reduce required marine openings. Rail speed restrictions on the new bridge would also be removed, allowing for faster service across the structure. The new bridge would ultimately improve operational efficiency on the Bergen County and Pascack Valley Lines.

EXISTING:
HX Draw

PROPOSED:
New Movable Bridge



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$269 Million**

**Estimates are based upon concept for design*

Value to Customers

- Increased on-time performance, safety, and service reliability

Value to State

- Reduces operating expenses to enable more efficient use of public funds
- Reduces potential injuries by decreasing increased on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET HX DRAW BRIDGE REPLACEMENT

ESTIMATED TOTAL PROJECT COSTS

$269M

Resiliency
More robust infrastructure would support the bridge, lowering the chance of train breakdowns and addressing flood and scour issues

Service Reliability
A new movable bridge would help eliminate conflicts with maritime traffic and allow for smoother service delivery

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Service Quality/Frequency
The new bridge would be able to handle trains traveling above 30 mph, allowing for more frequent service

State of Good Repair
Replacing a 109-year old bridge with a movable and modern bridge would bring the bridge crossing to state of good repair

*HX Draw would be a **modern movable bridge**, **improve operations**, and deliver **more frequent service**.*

PROJECT SHEET | UPPER HACK LIFT BRIDGE CAPACITY ENHANCEMENT

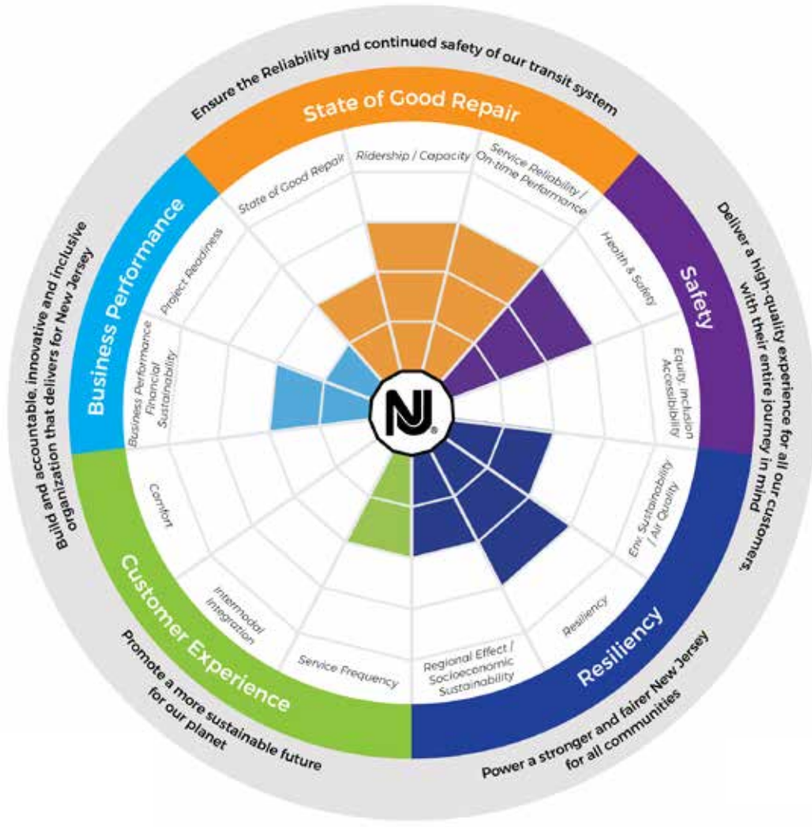
Description

The Upper Hack Lift Bridge carries the NJ TRANSIT Main Line over the Hackensack River between Secaucus and Lyndhurst. The existing single-track, vertical lift bridge was originally constructed in 1959 and is 61 years old. The single-track cross section creates an operational bottleneck as the right-of-way to both the north and south carries two or more tracks. This restricts the efficient flow of rail traffic, directly impacting service and expansion efforts to the adjacent meadowlands retail and entertainment complex.

If funded, this project would construct a new, double track lift bridge adjacent to the existing bridge, which would increase capacity on the Main Line to meet demands of anticipated growth and potential future expansion. The addition of a new independent structure would also add critical operational redundancy to the Main Line, as it is currently impossible to service the track on the bridge without a complete closure of the line. The vertical profile for the new bridge would be raised as much as is practicable to increase vertical clearance for navigation, thereby reducing the required bridge openings for navigable vessels. The existing bridge would also be rehabilitated to extend its service life, while continuing to operate alongside the new bridge. Overall, this project would improve operational efficiency and resiliency along the corridor, while lowering operating costs along the Main Line.

EXISTING:
Upper Hack Lift

PROPOSED:
New Vertical Lift Bridge



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$267 Million**

**Estimates are based upon concept for design*

Value to Customers

- Increases on-time performance, safety, and service reliability
- Increases capacity for sustained on-time performance and long term ridership growth

Value to State

- Reduces operating expenses to enable more efficient use of public funds
- Reduces potential injuries by decreasing increased on-site maintenance work
- Increases return on investment from increased ridership

NJ TRANSIT The Way To Go.

PROJECT SHEET UPPER HACK LIFT BRIDGE CAPACITY ENHANCEMENT

ESTIMATED TOTAL PROJECT COSTS

$267M

Ridership/Capacity
Improved traffic flow would increase capacity and potential ridership

Service Reliability
Both the new and rehabbed bridge would reduce service conflicts and facilitate improve through traffic

Resiliency
Track redundancy would allow for quicker system recovery and agility to respond to train breakdowns

Health/Safety
The 61 year old bridge would be rehabilitated to increase safety

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*This project would **improve operational efficiency, relieve congestion, expand capacity,** and make the **system more resilient** along the corridor.*

PROJECT SHEET | SHARK RIVER DRAW BRIDGE REPLACEMENT

Description

The Shark River Draw Bridge carries the NJ TRANSIT North Jersey Coast Line over Shark River between the Boroughs of Belmar and Avon-By-The-Sea, NJ. The existing movable rolling lift bridge was originally constructed in 1937 and is 83-years old. This bridge has exceeded its anticipated service life and maintenance expenses have escalated due to the increased frequency of mechanical component failure. Due to the poor condition of the bridge, train speeds are restricted. Overtime pay is necessary for maintenance work since track outages are not possible during service hours.

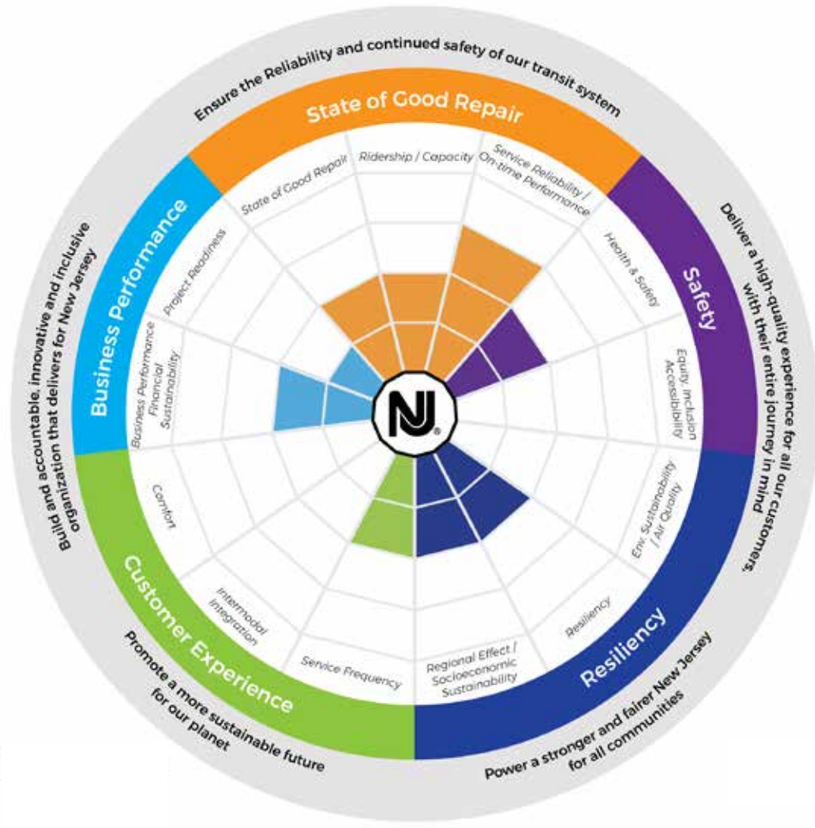
The approach spans of the original bridge were replaced in 2008 with new concrete ballasted deck spans supported by steel pipe pile foundations. If funded, this project would replace the existing movable and flanking spans of the existing bridge with a more reliable, modern bascule span. The new bridge would improve operational efficiency on the North Jersey Coast Line and will reduce operating and maintenance costs.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$170 Million

EXISTING:
Shark River Draw

PROPOSED:
New Bascule Bridge



Value to Customers

- Increases on-time-performance, safety, and service reliability

Value to State

- Lowers operating expenses and uses public funds efficiently
- Reduces potential injuries by decreasing on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET SHARK RIVER DRAW BRIDGE REPLACEMENT

ESTIMATED TOTAL PROJECT COSTS

$170M

Resiliency
Newly designed infrastructure would be resilient against floods and seismic hazards

Service Reliability
Upgrading the bridge would allow trains to run with less restricted speeds reducing delays

Business Performance/Financial Sustainability
Replacing bridge would reduce operating and maintenance costs

State of Good Repair
Bridge replacement would improve operational efficiency on the North Jersey Coast line

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Replacing existing bridge spans would **improve service operations and reliability**, **resilience**, and **state of good repair**.*

PROJECT SHEET | WEST FRONT STREET BRIDGE REPLACEMENT STUDY

Description

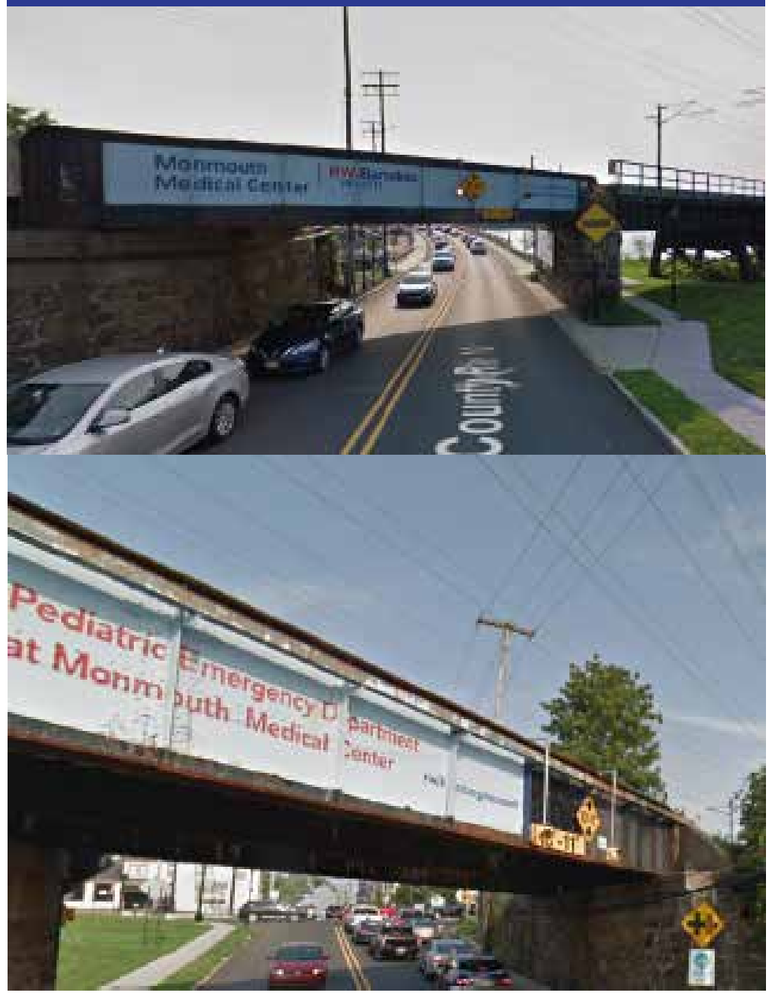
The West Front Street Bridge in Red Bank carries two electrified tracks on the North Jersey Coast Line over a two-lane road. The bridge only provides a 10'-11" vertical clearance between the roadway and the bottom of the bridge steel girders. This substandard clearance results in the bridge being frequently hit by truck traffic, causing damage which requires immediate repair.

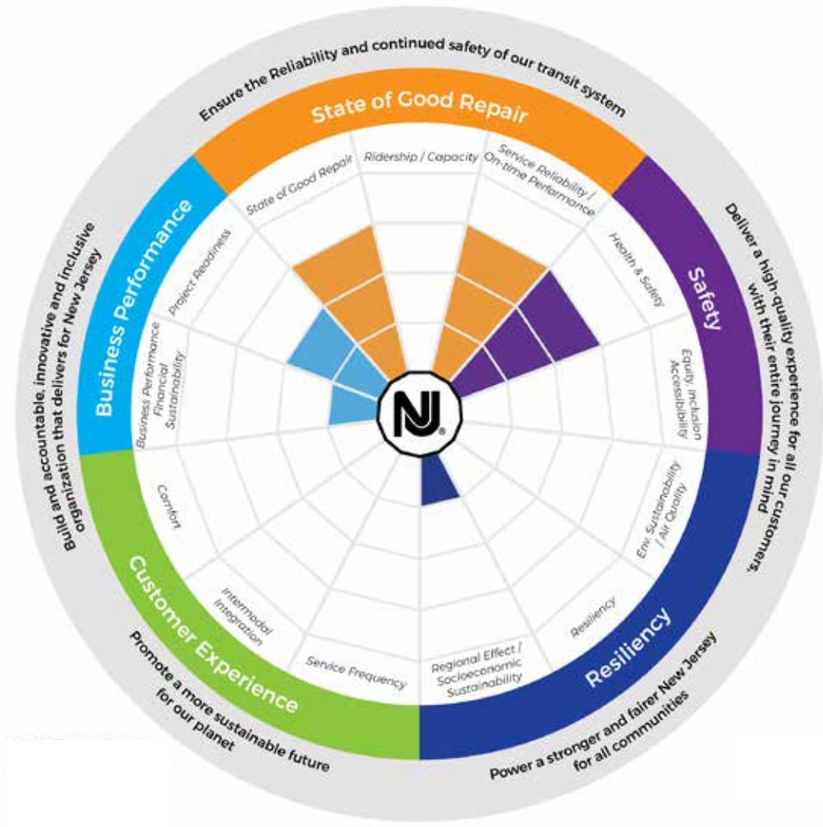
If funded, this project would study various alternatives to improve vertical clearance and eliminate truck impacts on the superstructure. The study would determine the appropriate action to best address the challenges, eliminate disruptions caused by truck collisions with the bridge, and alleviate the need for emergency repairs. Additionally, any bridge work would be coordinated with Monmouth County and their roadway improvement project.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$2 Million

EXISTING: Bridge Conditions





Value to Customers

› Reduces train delays from vehicular collisions and emergency bridge repairs

Value to State

› Decreases in maintenance and repair costs

PROJECT SHEET WEST FRONT STREET BRIDGE REPLACEMENT STUDY

ESTIMATED TOTAL PROJECT COSTS

$2M

Service Reliability
Improving clearance would reduce delays caused by vehicle collisions with the bridge

Regional Impact/Socioeconomic Sustainability
Eliminating service disruptions and emergency repairs due to collisions would improve North Jersey Coast Line service

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Bridge replacement and clearance improvement would reduce maintenance frequency and costs

Health/Safety
Improving clearance would prevent vehicle collisions and provide safer travel for motorists, pedestrians, and bicyclists

*Replacing the bridge to **alleviate clearance issues** would **significantly improve safety and service reliability**.*

PROJECT SHEET | MORGAN DRAW BRIDGE REPLACEMENT

Description

The Morgan Draw Bridge carries the NJ TRANSIT North Jersey Coast Line over the Cheesequake Creek between Sayreville and Old Bridge. The existing movable rolling lift bridge was originally constructed in 1912 and is 108-years old. This bridge has exceeded its anticipated service life and maintenance expenses have begun to escalate due to the increased frequency of mechanical component failure. During Hurricane Sandy, the Morgan Draw Bridge experienced significant damage. Although the bridge was repaired, operation of the bridge has become challenging due to permanent misalignments. Due to the poor condition of the bridge, train speeds are restricted to 30 mph. Overtime pay is necessary for maintenance work since track outages are not possible during service hours.

If funded, this project would replace the existing ±360-foot long bridge with a more reliable, modern, and movable bridge. The new bridge would improve operational efficiency on the North Jersey Coast Line and reduce operating and maintenance costs.

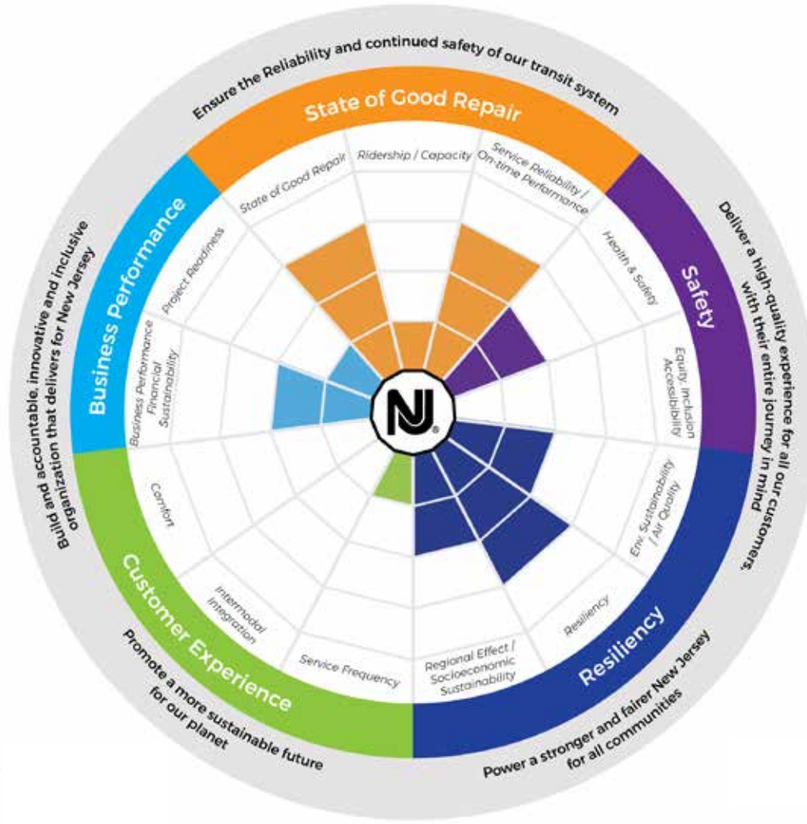
EXISTING:
Morgan Draw

PROPOSED:
New Movable Bridge

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$236 Million**

**Estimates are based upon concept for design*



Value to Customers

- Increases on-time-performance, safety, and service reliability

Value to State

- Lowers operating expenses hence efficient use of public funds
- Reduces potential injuries by decreasing on-site maintenance work
- Increase return on investment from increased ridership

PROJECT SHEET MORGAN DRAW BRIDGE REPLACEMENT

ESTIMATED TOTAL PROJECT COSTS

$236M

Business Performance/Financial Sustainability
New bridge would improve operational efficiency and reduce operations and maintenance costs

Service Reliability
New bridge with no misalignments would ensure more reliable train service

Resiliency
New bridge design would be resilient to flooding and seismic hazards

State of Good Repair
Replacing the bridge with a more reliable modern bascule bridge would enhance state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The new bridge would **improve operational efficiency** on the North Jersey Coast Line and **reduce costs**.*

PROJECT SHEET | WC INTERLOCKING RECONFIGURATION

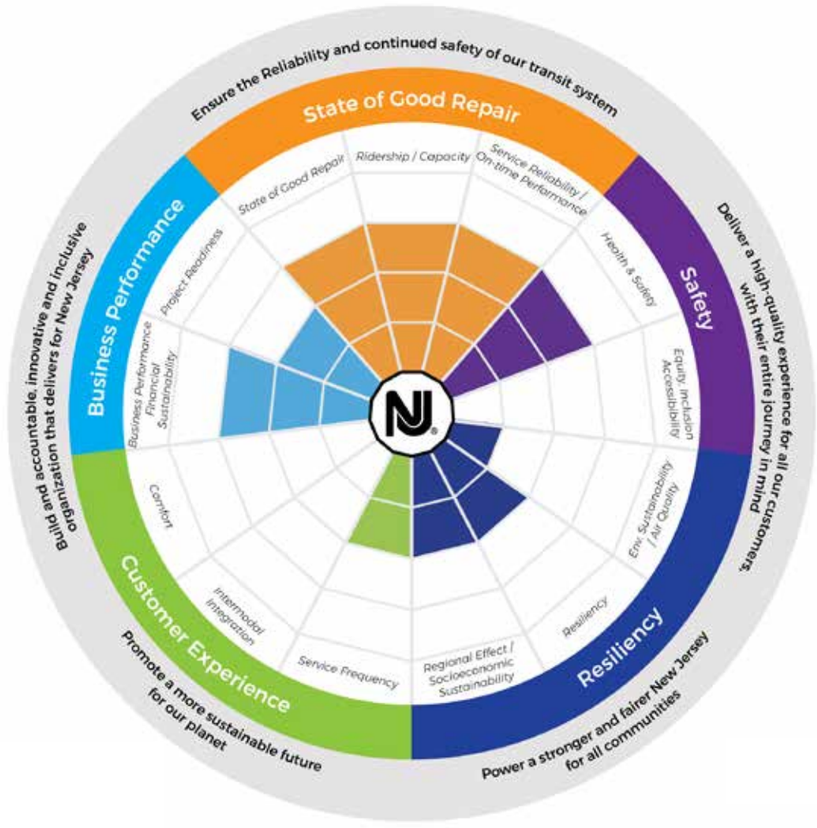
Description

The WC Interlocking is in Waldwick on NJ TRANSIT's Main Line. The tracks within the interlocking are used to turn trains shifting to the eastbound track which do not continue west to Suffern and to provide train access to the Waldwick Storage Yard. The current interlocking configuration requires trains to sit on the through tracks, obstructing through traffic and leading to frequent delays and service disruptions along the Main Line. Crew members are also required to deboard the trains to hand-operate switches adjacent to live train traffic in lieu of more modern, automated technology.

If funded, the WC Interlocking Reconfiguration would reduce delays on the Main Line and provide a safer and more reliable commute for customers by reconfiguring and upgrading the interlocking. Trains would now be allowed to continue through to Suffern while other trains maneuver into the yard, which would provide more operational flexibility. These upgrades would also provide significant safety enhancement by eliminating the need for crew members to deboard in order to turn trains back. Additionally, this project would significantly decrease maintenance costs by allowing routine maintenance to be performed with minimal disruption to scheduled rail service.

EXISTING: Morgan Draw

Manual switch throwing is still required at the Waldwick Yard to allow trains to turn back towards New York. This 100+ year old system is slow to operate and places conductors in harm's way.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$13 Million

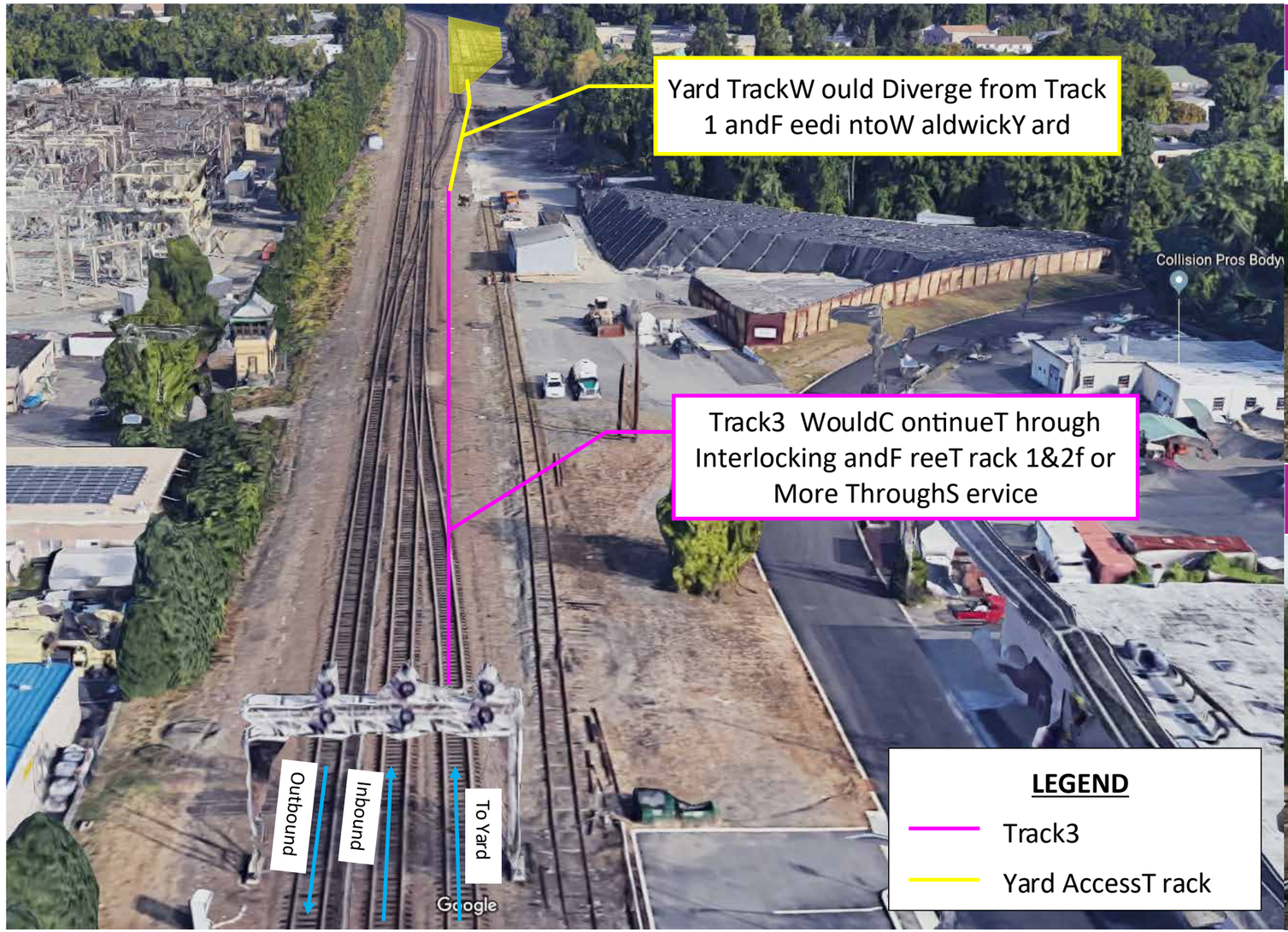
Value to Customers

- Reduces train delays from interlocking conflicts and increases on-time performance

Value to State

- Increases on-time performance, safety, and service reliability
- Lowers operating cost, including unscheduled maintenance and overtime
- Reduces maintenance costs 33% by allowing daytime maintenance work and eliminating need for costly night shift work

PROJECT SHEET | WC INTERLOCKING RECONFIGURATION



Rail Yard LookingW est

Interlocking LookingE ast

PROJECT SHEET WC INTERLOCKING RECONFIGURATION

ESTIMATED TOTAL PROJECT COSTS

$13M

Business Performance/Financial Sustainability
The project would lower operating costs and reduce maintenance costs on the Main Line by 33% by allowing for daytime maintenance

Service Reliability
The reconfiguration would reduce train delays from interlocking conflicts

Ridership/Capacity
The reconfiguration would eliminate a single track bottleneck, allowing for more trains to continue to Suffern

State of Good Repair
The service life of the interlocking would increase and manual switches would be converted to automatic

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **decrease delays and service disruptions** along the Main Line.*

PROJECT SHEET | WEST SUMMIT INTERLOCKING, WALL REPAIR & DRAINAGE

Description

The West Summit Interlocking is located just west of Summit Station and lies within a cut section of track between two concrete retaining walls. The interlocking serves two lines: two northern tracks as part of the Morristown Line, and a southern “Wall” track as part of the Gladstone Line. The existing interlocking is outdated and requires a speed limit reduction through the area. In addition, the current interlocking location prevents the extension of the existing undersized platforms to serve full-length trains. The configuration of the southern “Wall” track relative to the current interlocking also makes needed repairs of the south wall challenging while maintaining rail traffic. Finally, drainage and flooding issues regularly interfere with track signals, and results in contaminated ballast, false signal indications, and frequent delays.

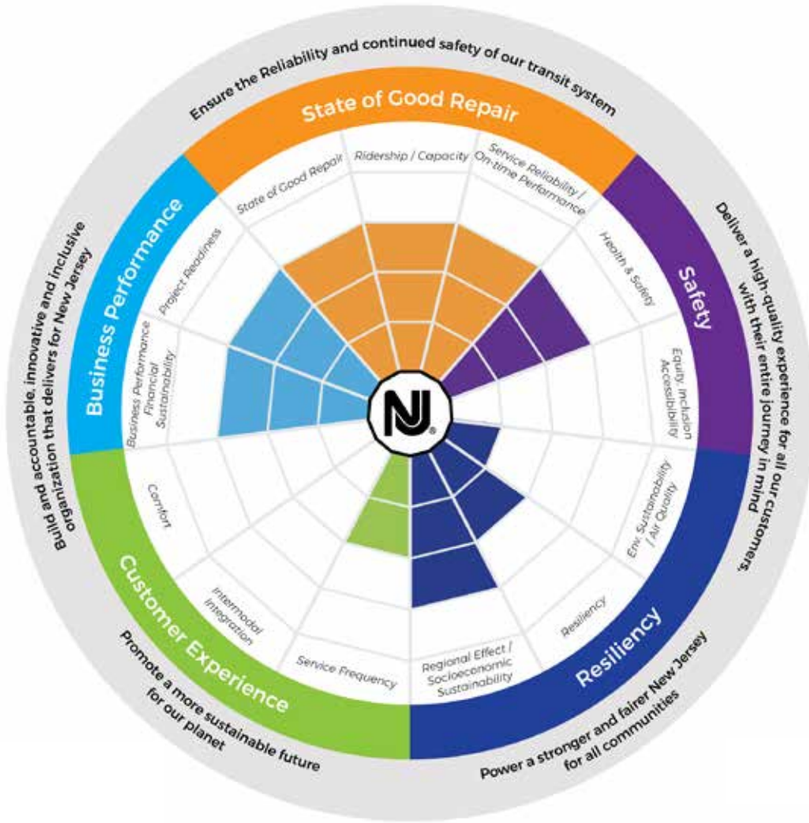
If funded, this project would be broken up into two phases to address the existing challenges. Phase I would relocate the West Summit interlocking further west of the existing station and interlocking, installing a new turn track on the Gladstone Line, and installing two layover tracks near the existing NJ TRANSIT storage facility west of the station. The new track configurations and installations would allow for more through trains, which would increase line capacity and facilitate future extension of the existing station platforms. Phase II would include repairing the existing wall and improving the drainage at track level. This would ultimately improve track drainage to prevent flooding and delays.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$97 Million**

**Design for Phase I is already complete and not included in cost*

EXISTING: Contaminated Ballast & Outdated Switches



Value to Customers

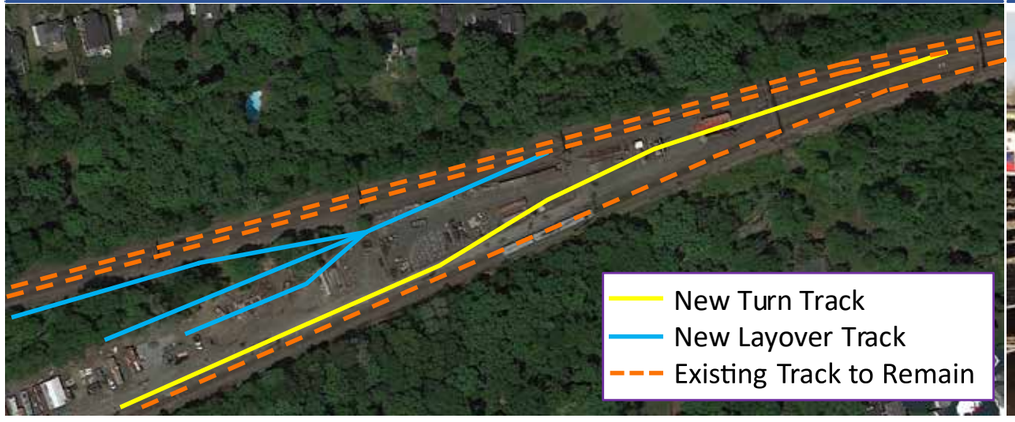
- Increases on-time performance
- Decreases delays caused by interlocking conflicts and false signal indications

Value to State

- Increases on-time performance safety, and service reliability, optimizing use of equipment and labor
- Lowers operating cost, which allows for efficient use of public funds

PROJECT SHEET | WEST SUMMIT INTERLOCKING, WALL REPAIR & DRAINAGE

New Turn and Layover Tracks



Example Layover Tracks

Severe Wall Deterioration

PHASE I – Interlocking Relocation and Relocation of Existing Utilities along the Wall

PHASE II – Wall Repairs and Drainage Improvements

PROJECT SHEET WEST SUMMIT INTERLOCKING, WALL REPAIR & DRAINAGE

ESTIMATED TOTAL PROJECT COSTS

$97M

Ridership/Capacity
Increased flow of trains would increase capacity and ridership potential

Service Reliability
The new interlocking would eliminate a bottleneck in the system, allowing for increased flow of more trains, and would accommodate longer trains, easing congestion

Regional Impact/Socioeconomic Sustainability
Improvements would increase line capacity on the Gladstone and Morristown Lines

State of Good Repair
Flooding, structural, and operational issues would be fixed to enhance state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The new track configurations and installations would **allow increased flow of trains, which would relieve congestion**.*

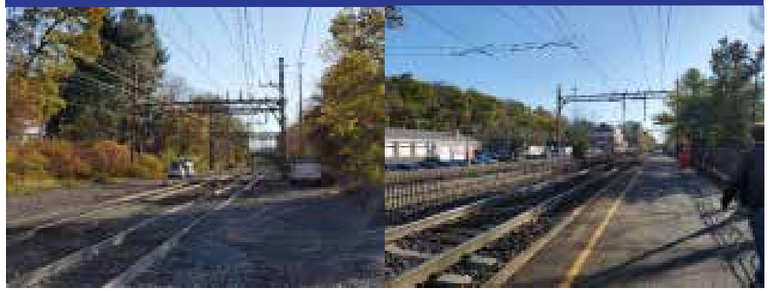
PROJECT SHEET | MILLBURN INTERLOCKING RECONFIGURATION

Description

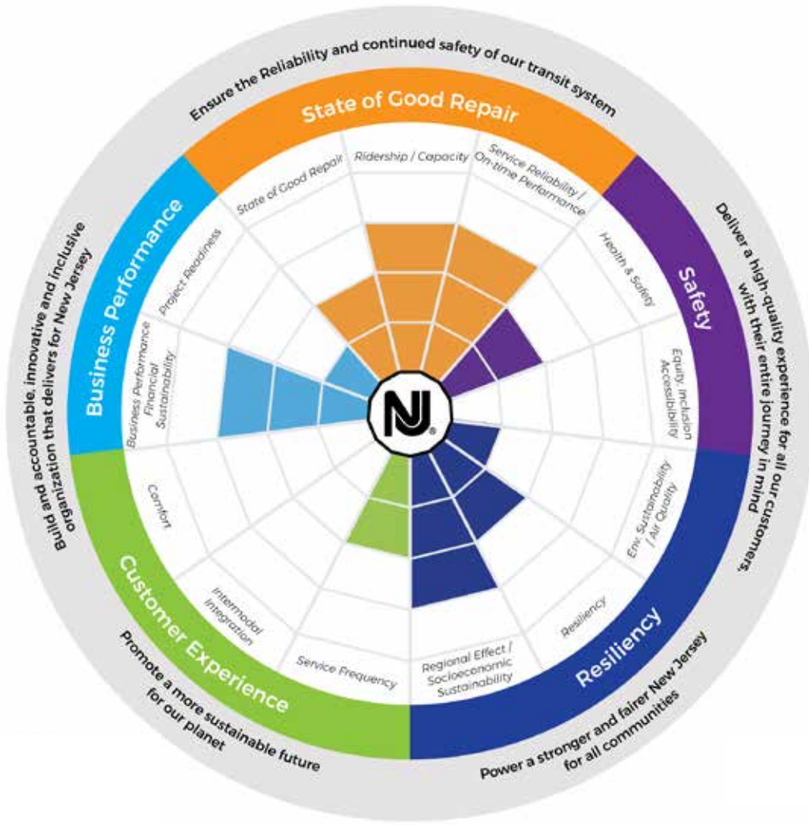
The Millburn Interlocking is located just east of Millburn Station in Millburn and accommodates three tracks on NJ TRANSIT's Morristown Line: Tracks one and two continue west through the adjacent Millburn Station, and Track three terminates at the interlocking and converges with Track one. The absence of a third track at the station creates an operational bottleneck, preventing incoming trains from entering or passing through the station until platformed trains have moved. Additionally, the existing platforms are low level and undersized, preventing full berthing of longer trains.

If funded, this project would reconfigure the interlocking and extend Track three west through Millburn Station to allow for express train passage without hindering local train schedules, thereby relieving the existing bottleneck by increasing line capacity through the station. This project would also construct a new station building and construct new high-level platforms in order to accommodate larger trainsets and improve accessibility. These improvements would primarily enhance business performance and passenger experience at the station. .

EXISTING:
Track Configuration



PROPOSED:
New Third Track



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$111 Million**

**Estimates are based upon concept for design*

Value to Customers

- Increases on-time performance
- Decreases delays caused by express and local train conflicts

Value to State

- Increases on-time performance and service reliability
- Lowers operating cost, which allows for more efficient use of public funds

PROJECT SHEET MILLBURN INTERLOCKING RECONFIGURATION

ESTIMATED TOTAL PROJECT COSTS

$111M

Business Performance/Financial Sustainability
A third track would increase train capacity on the line and a new station with universally accessible features would be more attractive for all customers

Service Reliability
A third track would allow express trains to run without delays

Ridership/Capacity
Longer track platforms and more efficient express-train operations would increase capacity for passengers and trains

Regional Effect/Socioeconomic Sustainability
Construction of a third express-track would positively impact all trains on the Morris & Essex line

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Reconfiguration of the Millburn Interlocking would ***enhance passenger experience*** *and* ***improve service reliability****.*

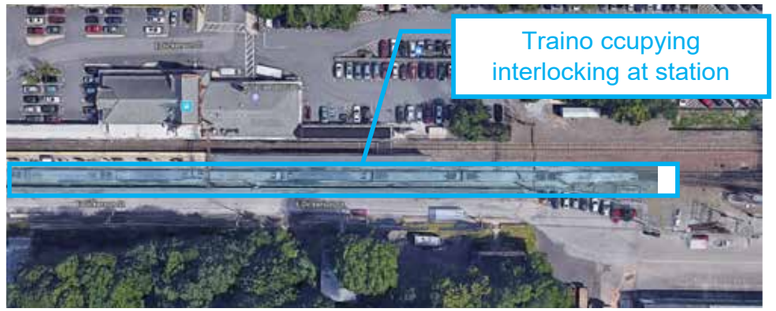
PROJECT SHEET | DOVER INTERLOCKING RECONFIGURATION STUDY

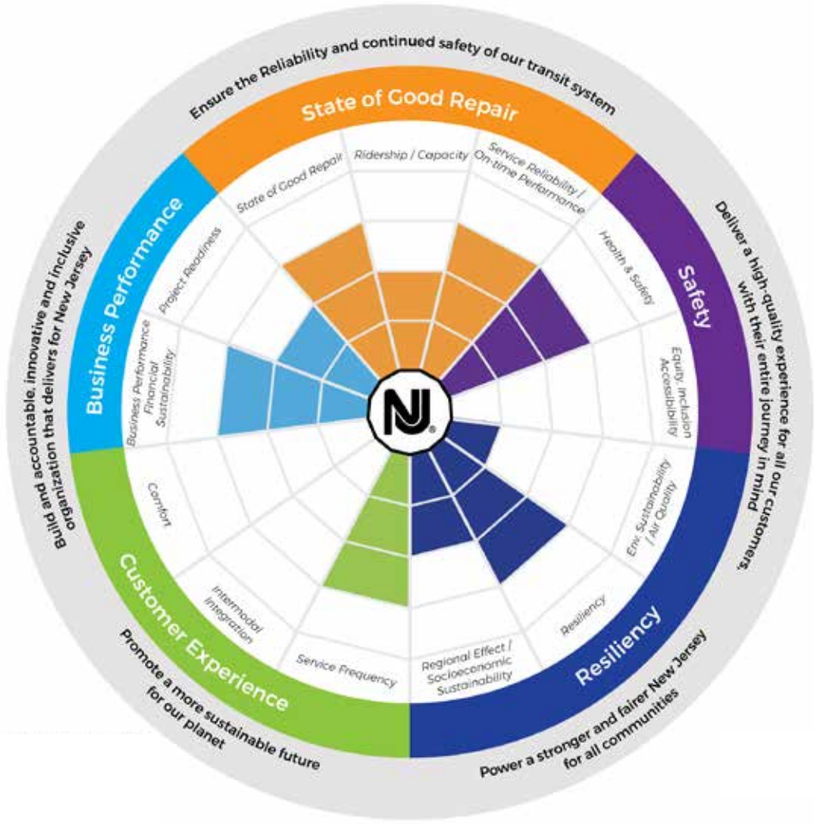
Description

Dover Station services NJ TRANSIT's Morris & Essex and Montclair-Boonton Line. The station is located within the Dover Interlocking, which is used to facilitate turning trains that do not continue west towards Hackettstown back east, and to provide access into the Dover Yard. The challenge with the current configuration is that trains larger than eight cars cannot fit between the interlocking signals and the grade crossing at S. Morris Street, which means the train blocks the grade crossing when stopped at the station. Furthermore, westbound trains on Track two that terminate at the station must use the interlocking to switch to Track one and enter Dover Yard. This complex move occupies the main tracks and prevents other trains from passing through, which results in frequent delays and reduced on-time performances along the Morris & Essex Line.

If funded, this project would look to study various alternatives to address the existing challenges at Dover Interlocking. Ultimately, the study would determine the appropriate action to best address the challenges, reduce the delays associated with the interlocking and grade crossing configuration, and improve train on-time performance along the Morris & Essex Line.

EXISTING:
Station and Interlocking





Value to Customers

- Reduces train delays from interlocking conflicts

Value to State

- Increases on-time performance and service reliability, which will bolster public perception of NJ TRANSIT
- Lowers operating cost from unscheduled maintenance and overtime, which allows for efficient use of public funds

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$1 Million

PROJECT SHEET DOVER INTERLOCKING RECONFIGURATION STUDY

ESTIMATED TOTAL PROJECT COSTS

$1M

Service Quality/Frequency
More efficient train movements would improve service frequency on the Morris & Essex and Montclair-Boonton lines

Service Reliability
Reduced delays on the Morris & Essex and Montclair-Boonton lines would increase on-time performance

Health/Safety
An upgraded interlocking would prevent bottlenecks and make train movements safer

State of Good Repair
Moving the interlocking outside of the station limits would improve train operations and extend service life

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **reduce delays and provide safer and more reliable commutes** for customers.*

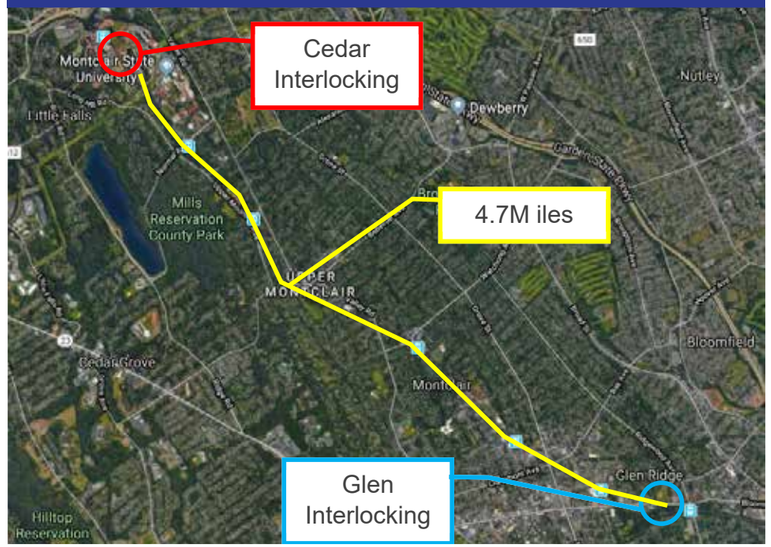
PROJECT SHEET | NEW INTERLOCKING BETWEEN GLEN AND CEDAR INTERLOCKINGS

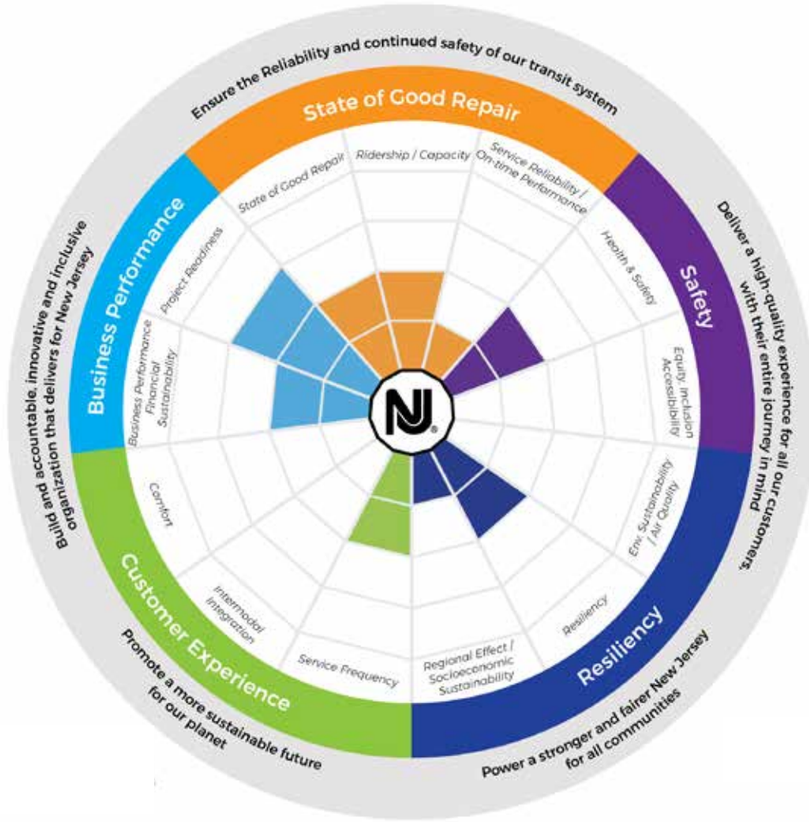
Description

The Montclair-Boonton Line services NJ TRANSIT passengers between Denville and either Hoboken Terminal or New York Penn Station. Between Montclair State University Station and points east, trains operate on two tracks, whereas west of the station, the two tracks merge into a single track until reaching Denville Station where the line meets up with the Morristown Line. For this two-track territory on the Montclair-Boonton line, two primary interlockings allow trains to switch between the tracks when necessary, which is common when there are individual track outages for maintenance work. However, the distance between the two primary interlockings (Cedar Interlocking just east of Montclair State University and the Glen Interlocking west of Glen Ridge Station) is nearly five-miles. The great length between these primary interlockings creates challenges because it requires trains to operate over a long distance before they can switch tracks. This can result in significant delays in service during track outages.

If funded, this project would construct a new interlocking between the existing Glen and Cedar interlockings to minimize the distance trains must travel before they can switch tracks. This would increase operational flexibility during track outages, which would significantly reduce delays and allow for increased service during these outages.

EXISTING:
Distance between Interlocking





ESTIMATED PROJECT COSTS (2020 DOLLARS):

$14 Million

Value to Customers

› Reduces train delays during track outages

Value to State

› Increases operational flexibility and decreases delays during track outages

PROJECT SHEET NEW INTERLOCKING BETWEEN GLEN AND CEDAR INTERLOCKINGS

ESTIMATED TOTAL PROJECT COSTS

$14M

Business Performance/Financial Sustainability
Constructing a new interlocking would decrease delays and increase operational flexibility

Service Quality/Frequency
A new interlocking would significantly reduce delays while increasing service during planned track outages

Health/Safety
New interlocking would increase safety and reduce maintenance needs

State of Good Repair
The new interlocking would make track maintenance easier while upgrading service on the line

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The new interlocking would **increase operational flexibility** during track outages and **reduce delays**.*

PROJECT SHEET | NEWARK PENN STATION MODERNIZATION

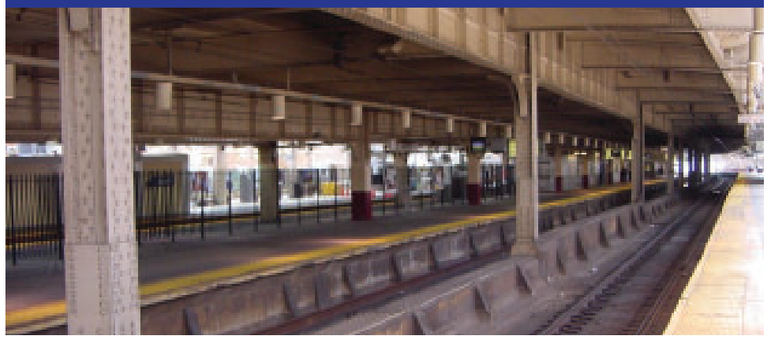
Description

Newark Penn Station serves as a critical link for NJ TRANSIT for commuter rail, bus and light rail service. The station is the busiest on NJ TRANSIT's system that is owned by the agency and is an essential node for customers traveling between New York and points west, as well as for customers traveling within the state. The station, however, needs a holistic overhaul. Current infrastructure is not always accessible for all, and platforms throughout the station need replacement. The station also needs lighting and display board upgrades and new paint throughout.

Following earlier phase work to improve Platform D conditions, additional platform work would be conducted at Platforms A, B and C if funding is approved. The roof replacement, which was initiated on a portion of the facility in 2014, would be completed. The station would receive an overall paint upgrade, HVAC improvements, and new LED lighting installations throughout. New Departure Vision boards that show passengers their waiting times would be incorporated, and a new PA system would allow riders to better hear announcements. Remaining escalators and elevators, as well as stairwells throughout the entire station would be overhauled to better comply with universal design standards. Restrooms would be upgraded along with replacement of Terrazzo flooring throughout the station. Updates would also be made to the bus and light rail waiting areas. An open concourse renovation concept could also be implemented to further modernize the facility. These improvements would provide an enhanced experience for customers and allow the system to be brought up to a state of good repair so it can better serve riders for years to come.

The station would receive a paint upgrade, and new LED lighting would be installed throughout. New Departure Vision boards that show passengers their waiting times would be hung, and a new PA system would allow riders to better hear announcements. Escalators and elevators throughout the entire station would be overhauled, and restrooms would be upgraded. (This is especially important for Track A, which currently does not have an escalator, and whose elevator is a freight elevator.) Terrazzo flooring throughout the station would be replaced, and stairwells throughout the stations would be improved (with sliding doors) to better comply with universal design concepts.

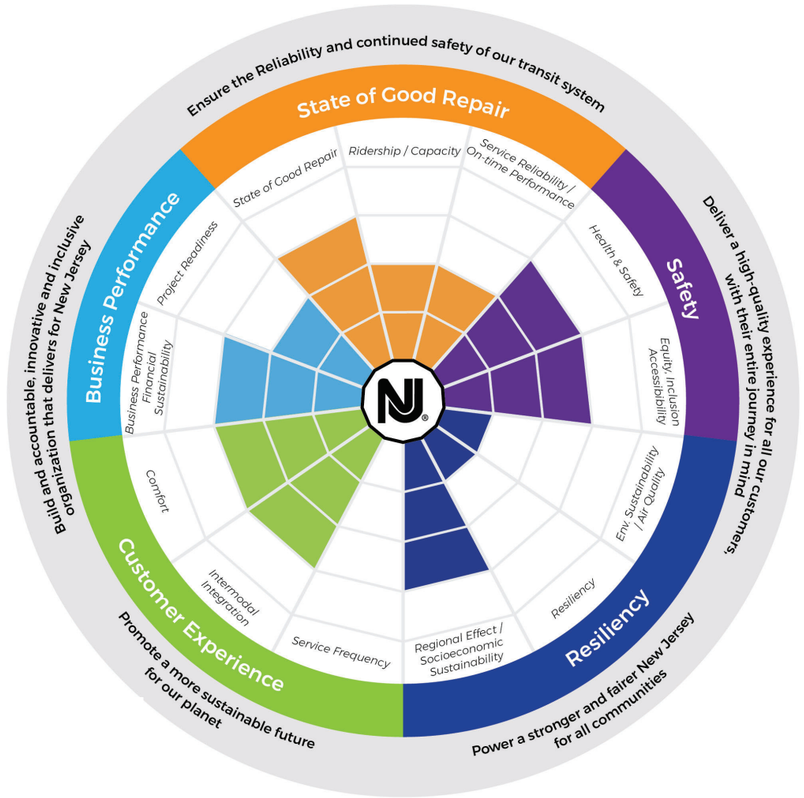
EXISTING: Newark Penn Station



The bus lane areas at the station would also be upgraded on both the Raymond Boulevard and Market Street sides (to the north and south of the station, respectively). Existing enclosures would be replaced, and streetscape improvements would be moved forward to allow for a safer pedestrian experience at the station. The light rail area at Newark Penn would be modified to allow for platform edge doors and point of entry fare collection. New signage would be hung, and platforms would be rehabilitated. The police command center at Newark Penn Station would also be upgraded in order to bring it up to a state of good repair.

Other improvements include:

- Roof replacement in PATH level, main waiting rooms, offices, and over Track D
- HVAC improvements in main concourse and waiting room
- Repair benches in all waiting rooms
- Add new stairs and add/refurbish elevators from Platforms D, C, B, and H down to concourse level
- BUS: Repave bus lanes, repaint underside of viaduct, upgrade lighting, upgrade bus waiting rooms, add digital displays
- LIGHT RAIL: The main operations control center for the Newark Light Rail is located at the Vehicle Base Facility in Bloomfield, NJ. In cases of emergency, a smaller redundant operations control center is located in Newark Penn Station to ensure continuity of service. This redundant control center is severely undersized to serve as a true backup operations center for any sustained period of time. This project would expand the current NLR Backup Operations Control Center, add climate control and standard office space amenities, and update light rail communication utilities to Newark Penn Station.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$454 Million

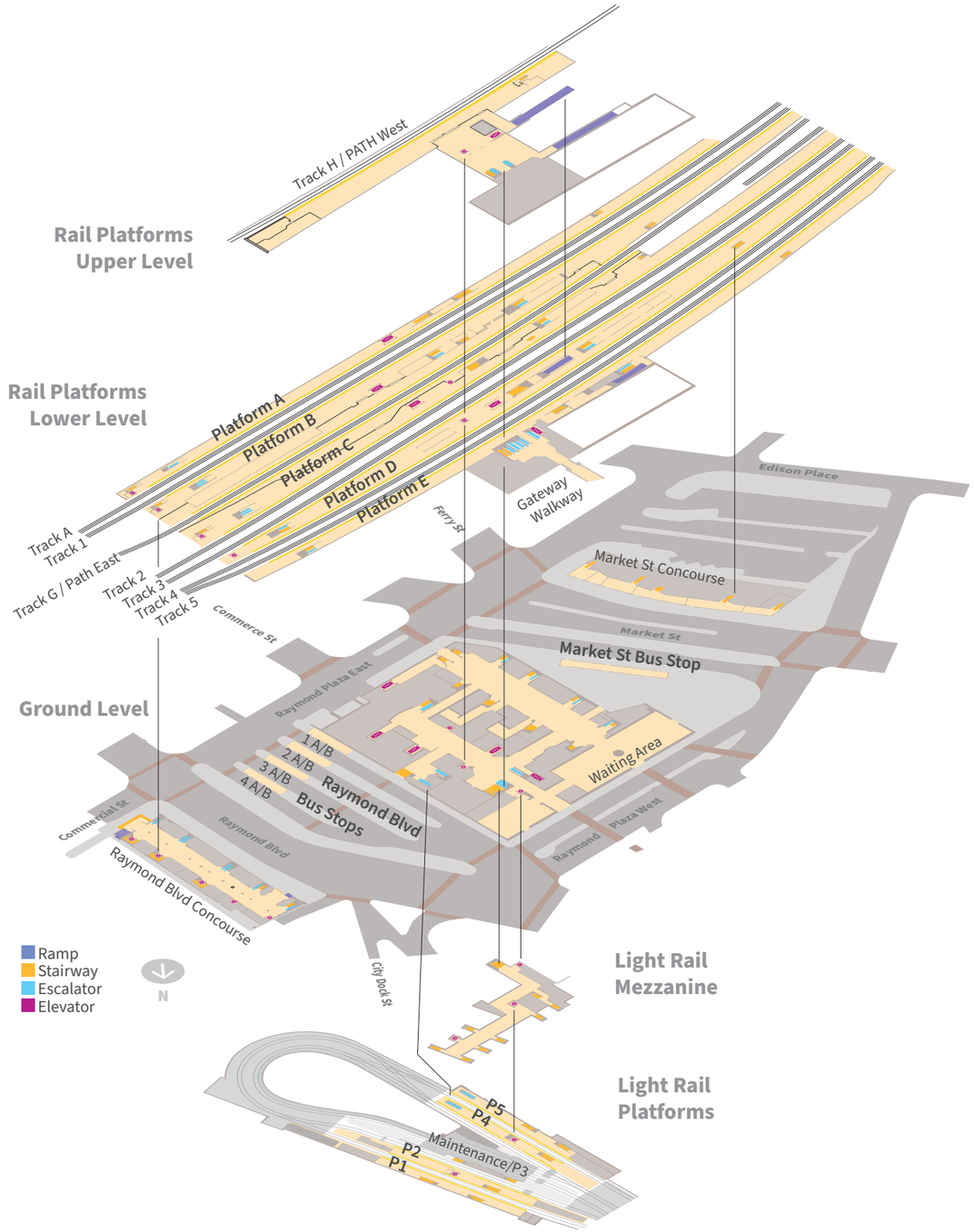
Value to Customers

- Rehabilitates passenger facilities to enhance travel experience
- Improves signage and communications to relay station information and rail service status

Value to State

- Extends service life of historical transit hub
- Provides more effective use of Capital funds in lieu of repetitive interim repairs
- Increased return on investment from increased ridership

PROJECT SHEET | NEWARK PENN STATION MODERNIZATION



PROJECT SHEET NEWARK PENN STATION MODERNIZATION

ESTIMATED TOTAL PROJECT COSTS

$454M

Intermodal Integration
Upgraded PA system, signage, Departure Vision boards, rail platforms, streetscape improvements, and bus lane areas would make it easier for customers to transfer between modes

Health/Safety
Improved LED lighting, station platforms, escalators, and elevators would improve station safety

Equity, Inclusion & Accessibility
Platforms throughout the station would be replaced to be accessible for all and elevators would be upgraded for customers who need to utilize them

Comfort
A new PA system and Departure Vision boards would make it easier for customers to monitor their train's status

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Improvements would provide an **enhanced experience for customers and would allow the system to be brought up to a state of good repair**.*

PROJECT SHEET | NEWARK PENN STATION - PLATFORM D IMPROVEMENTS

Description

Newark Penn Station is a major rail hub for both Amtrak and NJ TRANSIT, and serves the Northeast Corridor, North Jersey Coast Line and Raritan Valley Line rail service. Platform D, which serves as one of the primary outbound platforms for both Tracks 3 and 4, needs rehabilitation in order to provide the requisite level of service for one of NJ TRANSIT's busiest stations.

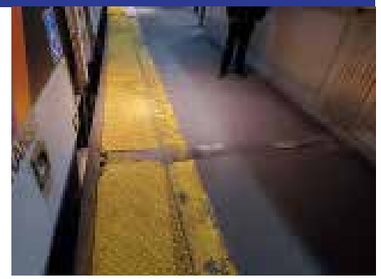
If funded, improvements would be completed in two phases. Phase I features rehabilitation of the concrete platform. This includes reconstruction of the platform edge, addition of new tactile strips and rub rails; reconstruction of platform deck joints; repairs to shallow and deep concrete spalls; partial and full deck replacement (where required); and sealing of the rehabilitated deck with a suitable high traction membrane coating. Phase I rehabilitation would also include improvements to the existing overhead canopy, including structural repair/replacement of deteriorated steel members; full painting of the steel canopy structure; and installation of a new roof drainage system. Canopy enhancements would include new LED lighting, new variable message sign boards, and a new public announcement system with enhanced speakers to improve communications and overall customer experience.

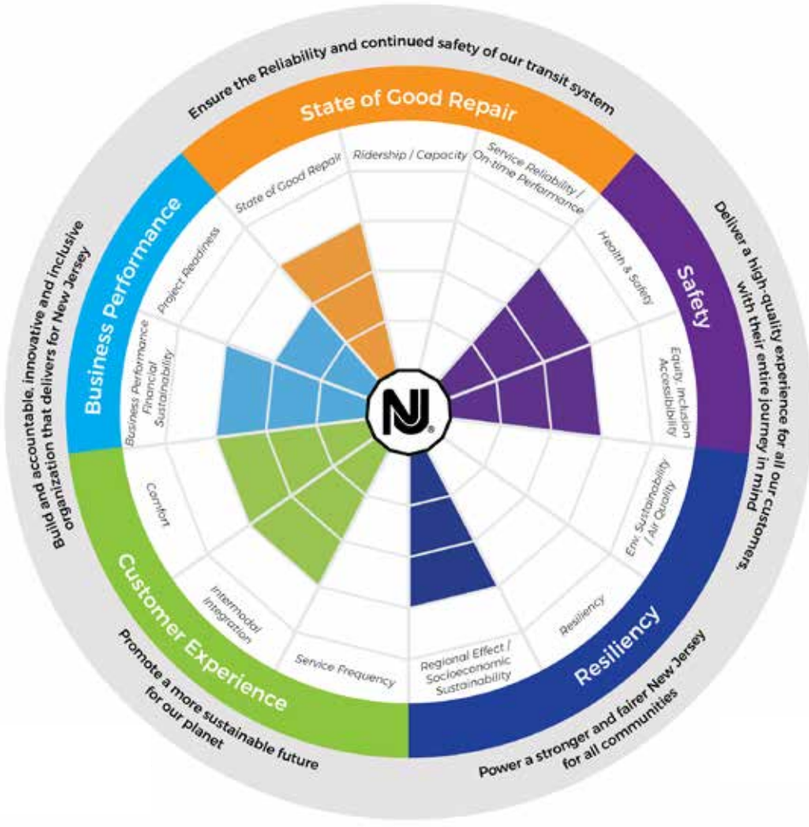
Phase II would include renewal of platform passenger waiting areas, including door and exterior façade replacement. In addition, rehabilitation of the existing platform freight elevator would be completed to accommodate combined passenger and freight movements. These improvements would enhance station operations and better accommodate passenger access to the station.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$26 Million

EXISTING: Station Conditions





Value to Customers

- Rehabilitates passenger facilities to enhance travel experience
- Improves signage and communications to relay station information and rail service status

Value to State

- Extends service life of historical transit hub
- Provides more effective use of capital funds in lieu of repetitive interim repairs

PROJECT SHEET NEWARK PENN STATION - PLATFORM D IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$26M

Equity, Inclusion & Accessibility
Platform improvements would provide better accessibility for all customers

Comfort
Enhanced communications systems and improved lighting on the platform would significantly improve customer comfort

Regional Effect/Socioeconomic Sustainability
An improved platform would positively impact the NEC, North Jersey Coast, and Raritan Valley Lines

State of Good Repair
Improvements would reduce maintenance and more effective roof drainage would mitigate future deterioration

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Platform improvements would **enhance travel experience**, **positively impact service**, and **extend service life**.*

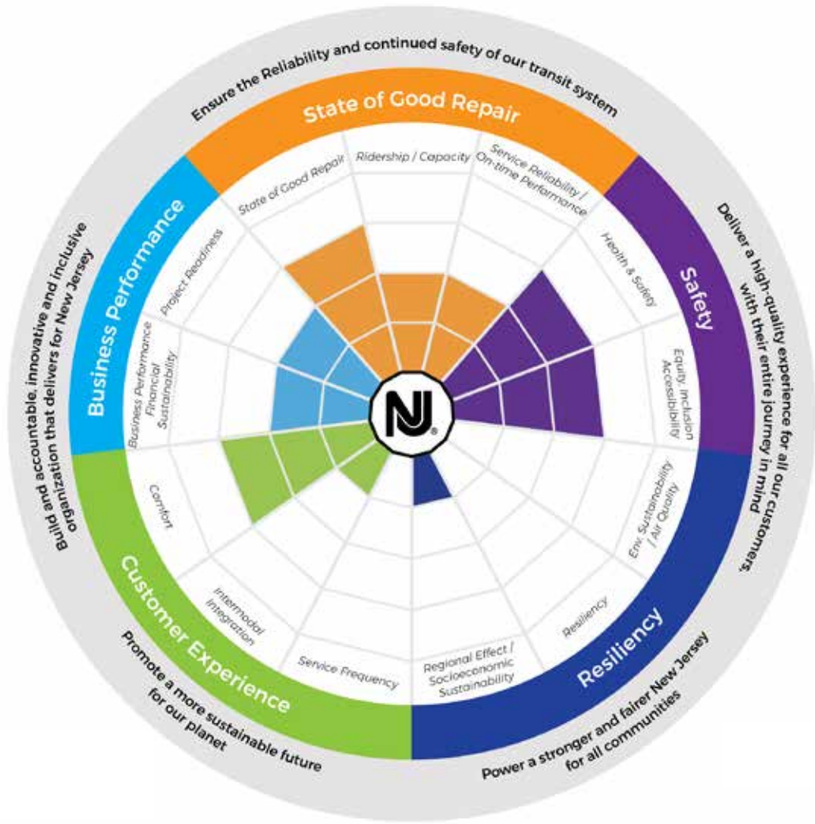
PROJECT SHEET | TRENTON STATION IMPROVEMENTS

Description

Trenton Station is a high-level platform station located on NJ TRANSIT and Amtrak's Northeast Corridor (NEC). This heavily used station supports an average of 3,673 passenger boardings per weekday and serves a key link to the state Capital region, Philadelphia, Newark, and New York City. The current station needs rehabilitation in order to return to a state of good repair.

If funded, the station's concrete platform would be rehabilitated. This includes reconstruction of the platform edge; addition of new tactile strips and rub rails; reconstruction of platform deck joints; and repairs to shallow and deep concrete spalls. The rehabilitated platform would be sealed with a suitable high traction membrane coating. Improvements to the existing overhead canopy would also be made, including structural repair/replacement of deteriorated steel members; full painting of the steel canopy structure; and installation of a new roof drainage system. Canopy enhancements would include new LED lighting, new variable message sign boards, and a new public announcement system with enhanced speakers to improve communications and overall customer experience. The police command center at Trenton Station would also be upgraded in order to bring it up to a state of good repair.

EXISTING: Station Conditions



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$49 Million**

**Estimates are based upon concept for design*

Value to Customers

- Enhances travel experience with rehabilitated passenger facilities
- Improves signage and communications to relay station information and rail service status

Value to State

- Extends service life of transit hub
- Reduces maintenance costs

PROJECT SHEET TRENTON STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$49M

Health/Safety
Enhance communications and lighting would improve passenger safety

Equity, Inclusion & Accessibility
Addition of new tactile strips and rub rails would improve accessibility

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Rehabilitating platform and canopy improvements would reduce maintenance frequency

Comfort
Enhanced communication systems and lighting would improve customer experience and streamline movements

*Rehabilitating Trenton Station would **improve state of good repair**, **comfort**, and **safety at a key network link**.*

PROJECT SHEET | REGIONAL RAIL STATION MODERNIZATION & ACCESS PROGRAM

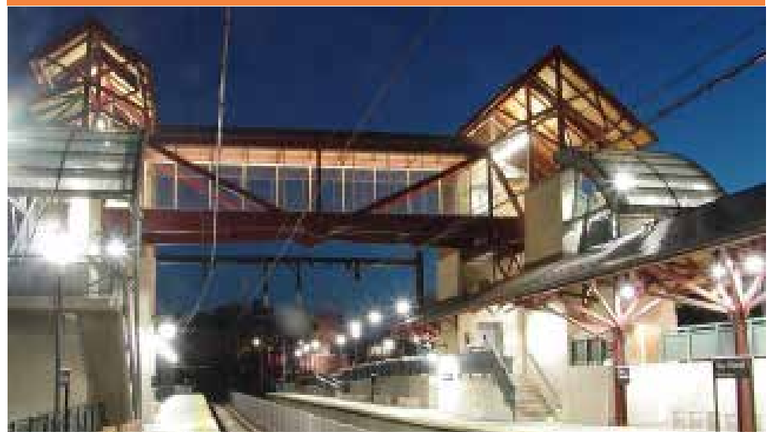
Description

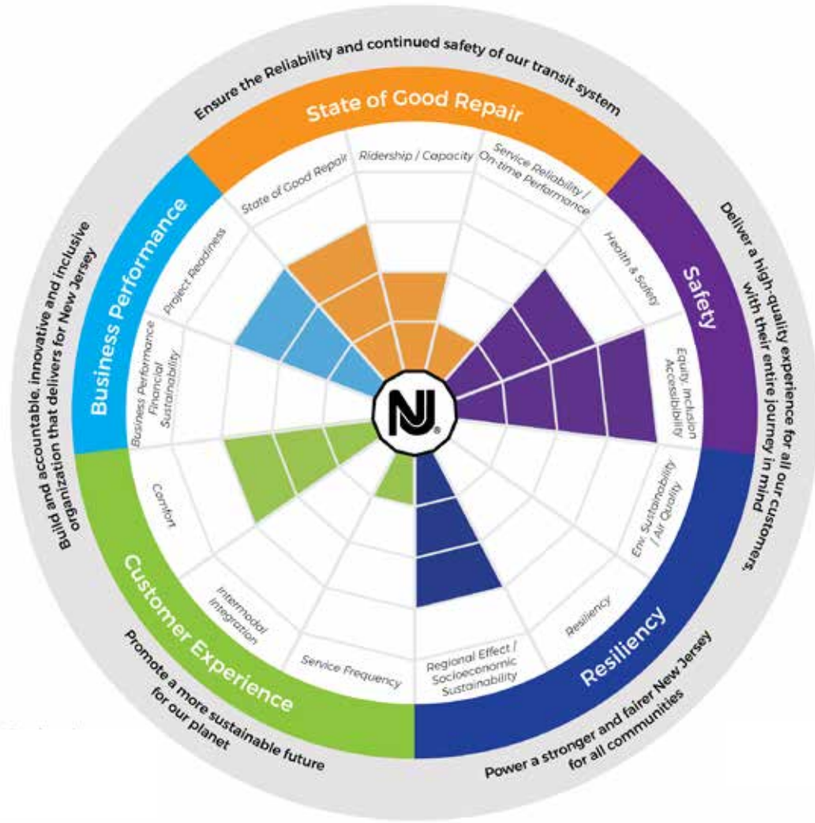
In an ongoing effort to improve passenger safety and accessibility across its rail system, and to further respond to the requirements of the Americans with Disabilities Act (ADA), NJ TRANSIT has identified a list of stations it intends to make accessible as part of this plan.

If funded, this project would construct high-level platforms, elevators, ramps, pedestrian overpasses, widened sidewalks and access paths where appropriate. In some instances, accessibility improvements are paired with physical condition upgrades to improve overall station state of good repair. Stations are prioritized according to physical conditions, current and projected ridership, local demographics, and potential environmental impacts. These improvements collectively would enhance both the safety and experience of the customer, further advance access to communities, and yield improved on-time performance, and more efficient operations as high-level platforms reduce train dwell time at stations which reduce travel times. In addition, all 30 stations would receive basic state of good repair upgrades as part of this work.

EXISTING:
Low Level Platform

PROPOSED:
High Level Platform with Elevators





Value to Customers

- Increases access for passengers
- Enhances comfort for customers at improved facilities
- Improves signage and communications to relay station information and rail service status

Value to State

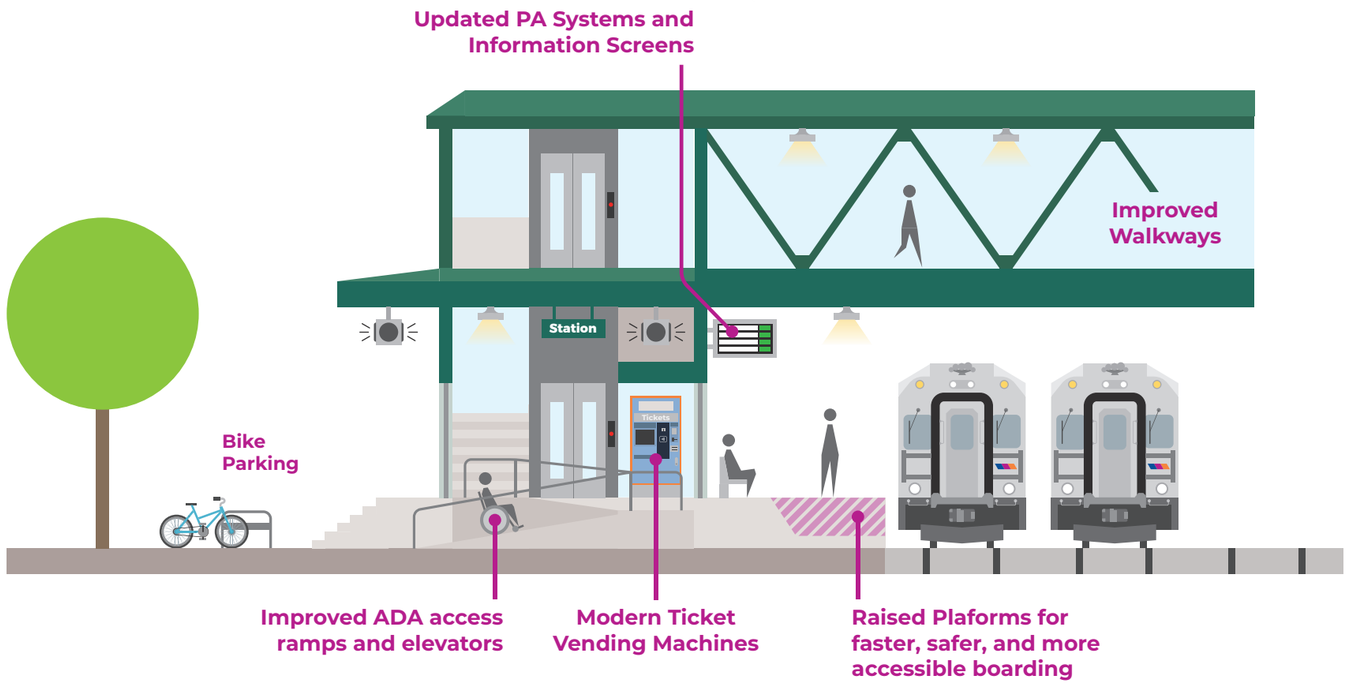
- Improves station accessibility
- Extends service life of facilities while improving state of good repair systemwide

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$790 Million**

**Estimates are based upon concept for design*

PROJECT SHEET | REGIONAL RAIL STATION MODERNIZATION & ACCESS PROGRAM



PROJECT SHEET REGIONAL RAIL STATION MODERNIZATION & ACCESS PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$790M

Health/Safety
Infrastructure upgrades would provide safer access to stations for customers

State of Good Repair
Expanding accessibility would be paired with upgrades to improve overall station state of good repair

Equity, Inclusion & Accessibility
Upgraded rail stations would improve accessibility for all customers

Regional Effect/Socioeconomic Sustainability
Infrastructure at 30 stations across the NJ TRANSIT rail network would be upgraded to improve accessibility to the rail network

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Modernization and access improvements would **enhance safety**, **access**, **customer experience**, and **operations**.*

PROJECT SHEET | PERTH AMBOY STATION

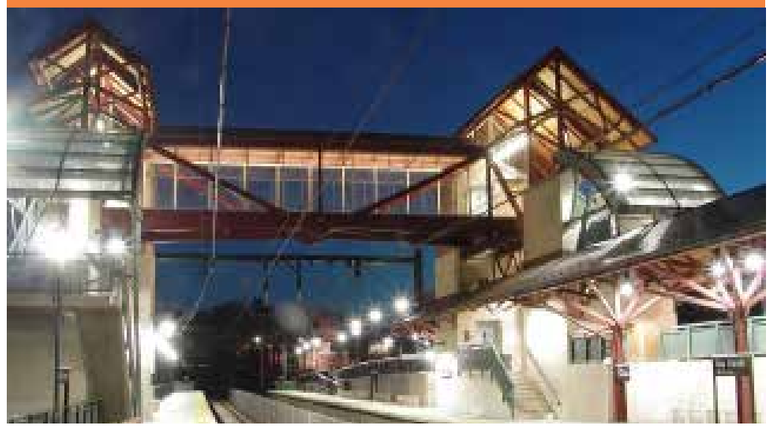
Description

Perth Amboy Station is located in Middlesex County near Route 35 in the city of Perth Amboy and services the North Jersey Coast Line. The station, which accommodates nearly 900 passenger boardings on an average weekday, is not currently accessible and in need of major renovations. Platforms at the station are arranged in a two side low level configuration and located below street level in a cut. A pedestrian overpass provides access to the station building, but there are no elevators or ramps. In addition to the station's accessibility needs, the existing platform canopies need repairs and the communications system should be up graded.

In an ongoing effort to improve passenger safety and accessibility across its rail system, and to meet the requirements of the Americans with Disabilities Act (ADA), NJ TRANSIT will improve accessibility at Perth Amboy station. The project will construct high-level platforms for handicap accessibility, elevators, ramps, additional pedestrian overpasses, widened sidewalks, and access paths where appropriate at the Perth Amboy Station. In some instances, accessibility improvements will be paired with physical condition upgrades to improve the station's overall state of good repair.

EXISTING:
Low Level Platform

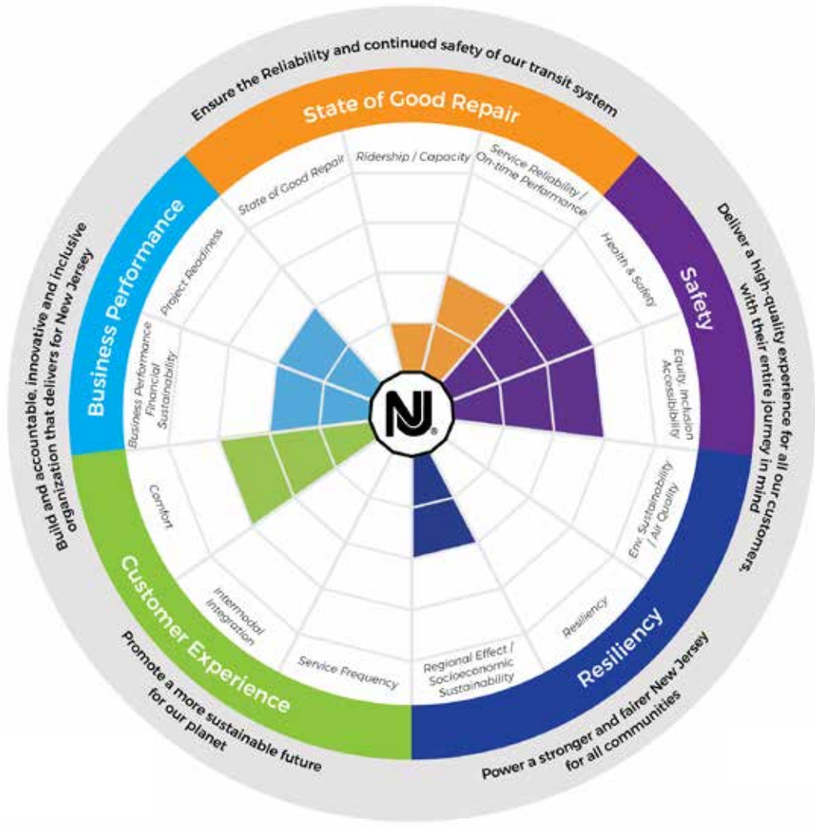
PROPOSED:
High Level Platform with Elevators



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$47 Million**

**Estimates are based upon concept for design*



Value to Customers

- Increases access for passengers
- Enhances comfort for customers at improved facilities

Value to State

- Improves station accessibility
- Extends service life of facilities while improving state of good repair systemwide

PROJECT SHEET PERTH AMBOY STATION

ESTIMATED TOTAL PROJECT COSTS

$47M

Service Reliability
Improvements to the platform would reduce dwell times and improve on-time performance

Comfort
A renovated station with improved accessibility would improve customer comfort

Equity, Inclusion & Accessibility
The upgraded station would be accessible for all customers with high-level platforms, elevators, ramps, and improved access paths

Health/Safety
Improving accessibility at the station will provide safer access for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **improve accessibility** at Perth Amboy Station to provide a better experience for all customers.*

PROJECT SHEET | LYNDHURST STATION

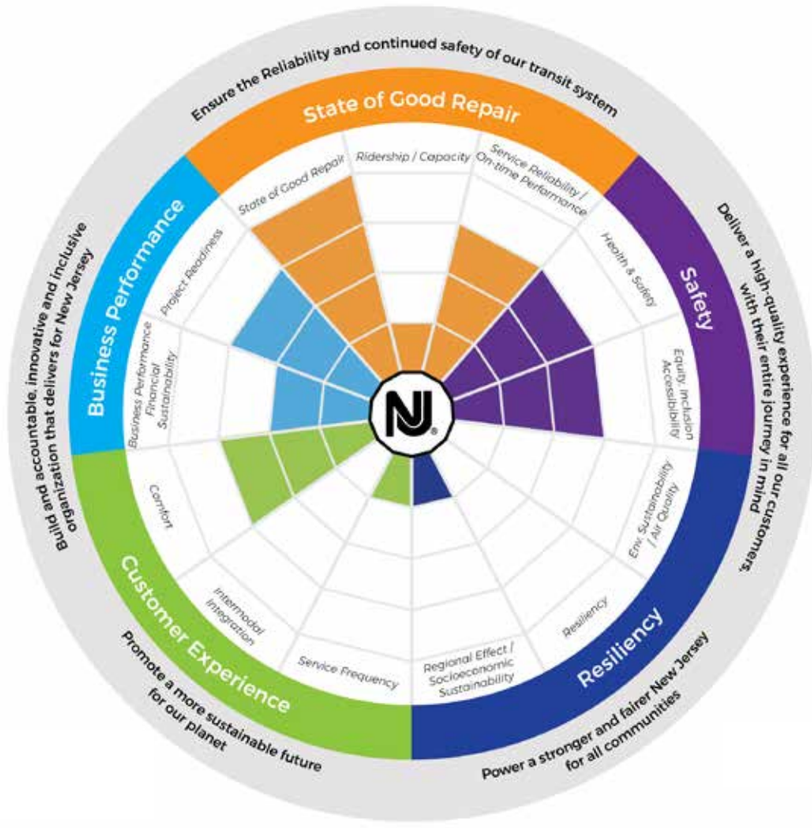
Description

Lyndhurst Station is one of two stations in Lyndhurst that services the Main Line. This station, which accommodates approximately 1,000 passengers per weekday, is severely outdated and in need of full replacement. The existing station is a major opportunity to improve accessibility for persons with disabilities. Additionally, parking near the station is inadequate and hard to access making passengers walk to a location a quarter mile east of the station. In addition to being inconvenient, the logistics of the public lot requires passengers to walk through busy streets to reach the station and presents a challenge for those who may be mobility impaired.

If funded, this project would construct a new Lyndhurst Station east of the existing station to provide adequate accessibility to and from the existing parking lot. The new station would have accessible high-level platforms and station enclosures on the eastbound and westbound tracks, elevators, sheltered walkways, and heated waiting areas. Ultimately, the new station would provide customers with a safer, more accessible, and overall enhanced experience.

EXISTING: Station Condition

PROPOSED: New Station



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$32 Million**

** Year 1 includes funds already spent on design phase activities; Total project cost indicates total cost over span of the project, not the funded or unfunded amount*

Value to Customers

- Increases accessibility for passengers
- Enhances comfort for customers waiting at station
- Improves access to and from parking lot

Value to State

- Greater opportunity to drive transit-oriented development (TOD) opportunities
- A more interconnected and accessible network

PROJECT SHEET LYNDHURST STATION

ESTIMATED TOTAL PROJECT COSTS

$32M

Comfort
New station enclosures, sheltered walkways, and heated waiting areas would enhance customer comfort

Health/Safety
Improved access to platforms and to and from station parking lot would make the station safer for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Upgrading station infrastructure would reduce frequency and cost of maintenance

Equity, Inclusion & Accessibility
New high-level platforms, walkways, and elevators would improve accessibility for all customers

*The new Lyndhurst Station would **enhance state of good repair**, **accessibility**, **comfort**, and **safety**.*

PROJECT SHEET | ROSELLE PARK STATION IMPROVEMENTS

Description

The Roselle Park Station is an elevated platform station located in Roselle Park that serves NJ TRANSIT's Raritan Valley Line. The station, built circa 1967, is obsolete, structurally deficient, and in need of both structural and "customer facing" work. Necessary work includes full platform replacement, repairs to access stairs, as well as cleaning and painting work. Although the station features an elevated platform, the station is a major opportunity to improve the system's accessibility as stairs must be used to access the platform from the station building and parking lot.

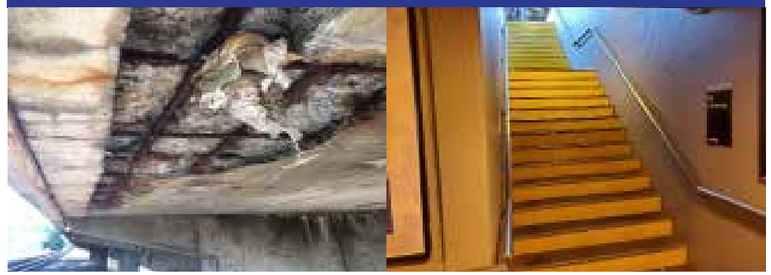
If funded, this project would address the noted structural and cosmetic deficiencies to rehabilitate the station and bring it to a state of good repair, extending its overall service life. In addition, an elevator would be installed to improve overall accessibility to the platform. Enhanced signage and communications would be incorporated to provide customers with station information and rail service status.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

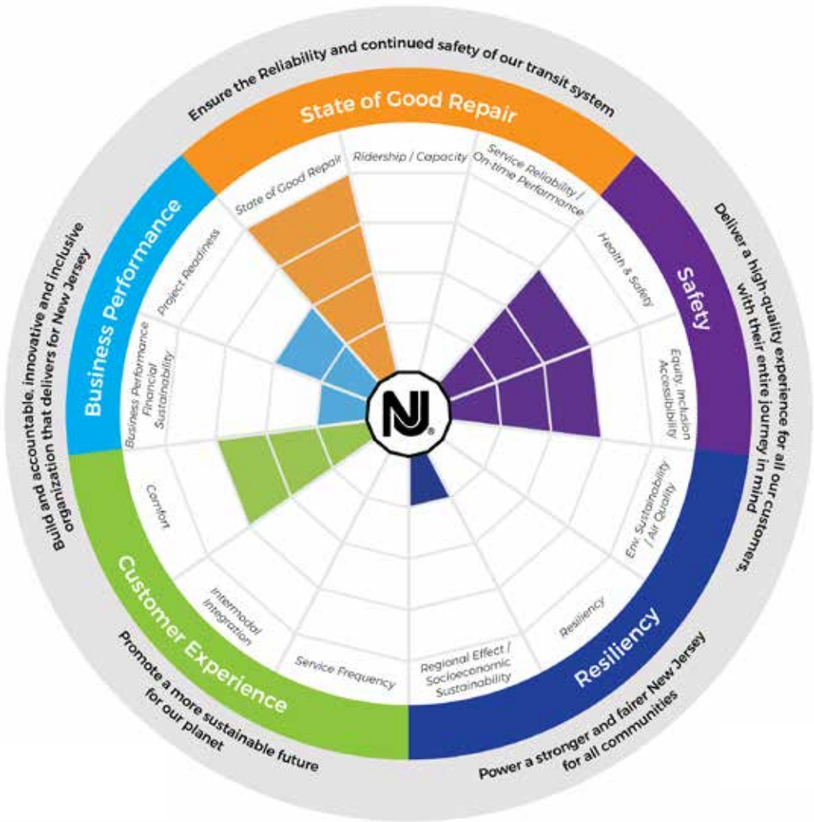
***$24 Million**

**Estimates are based upon concept for design*

EXISTING:
Station Condition



PROPOSED:
Platform Elevator



Value to Customers

› Increases accessibility for passengers

Value to State

› Complies with regulations

PROJECT SHEET | ROSELLE PARK STATION IMPROVEMENTS

Existing Issues

1 Existing stairs to access platform are deteriorated. They are also the only means of accessing the platform and are not ADA accessible.	4 Deteriorated maintenance stairs are severely deteriorated and need to be replaced.
2 Station building is outdated and in need of both functional and cosmetic repairs.	5 Concrete underside of station platform is severely spalled with exposed rebar, which warrants full replacement.
3 Temporary platform repairs from previous work should be replaced with new platforms	6 Concrete platform substructure is severely spalled with exposed rebar, which warrants repair or replacement.

1 Deteriorated Stairs/ADA Issue

2 Obsolete Station Building

3 Temporary Platform Repairs (Typical)

4 Deteriorated Maintenance Stairs

5 Deteriorated Platform Concrete (Typical)

6 Deteriorated Platform Substructure (Typical)

PROJECT SHEET ROSELLE PARK STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$24M

Comfort
A renovated station building and enhanced signage and communications systems would improve customer comfort

Health/Safety
Platform reconstruction, repairs, elevator installation, and improved lighting would enhance customer safety

State of Good Repair
Platform reconstruction, repairs, and customer facing upgrades would extend the station's service life

Equity, Inclusion & Accessibility
Elevator installation, platform reconstruction, and repairs would improve accessibility for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **bring Roselle Park Station to a state of good repair** and **improve access**, **comfort**, and **safety**.*

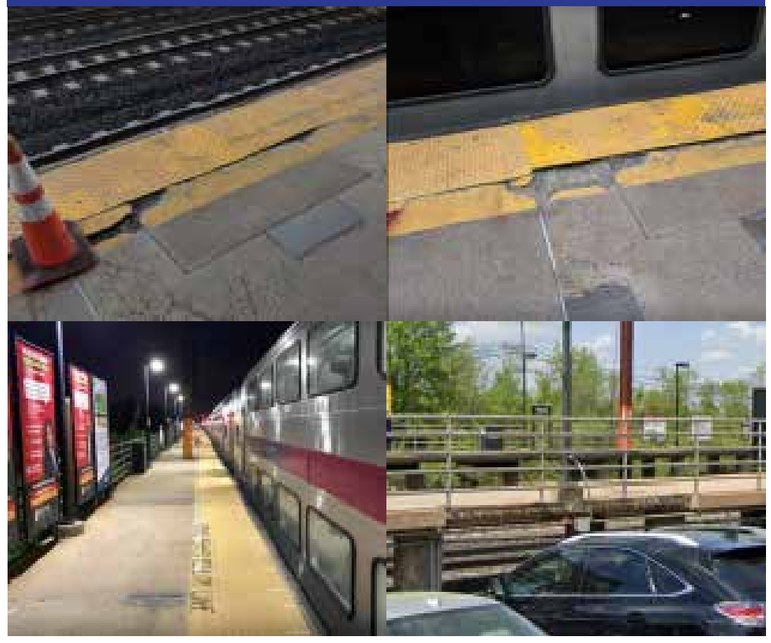
PROJECT SHEET | EDISON STATION IMPROVEMENTS

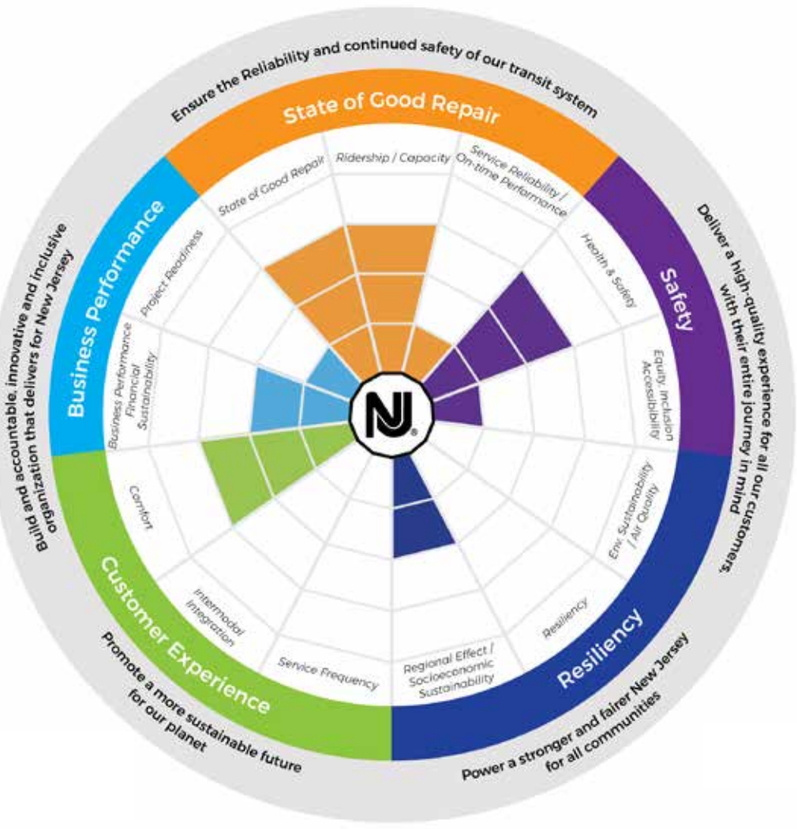
Description

Edison Station is elevated platform station that serves NJ TRANSIT and Amtrak's Northeast Corridor (NEC). This heavily used station, which supports approximately 2,773 passenger boardings per weekday, must support a 12-car trainset. However, the current platforms are too short to accommodate this long train length. As a result, not all cars of a train can fit on the station platform, making it more challenging and time consuming for passengers to board and deboard trains. However, extension of the existing platform is currently prevented by an existing freight turnout switch to the west, and an undergrade bridge to the east.

If funded, this project would relocate the existing freight turnout switch to the east of the station to facilitate platform extension to the west by approximately 425 feet. The extension would allow an entire 12-car trainset to fit at the station, decreasing dwell times, and facilitating necessary passenger boardings. This would ultimately increase rail operation efficiency and service speed. Additionally, the existing platform would be replaced to extend its useful service life, mitigate future maintenance, and improve safety.

EXISTING: Station Conditions





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$36 Million**

**Estimates are based upon concept for design*

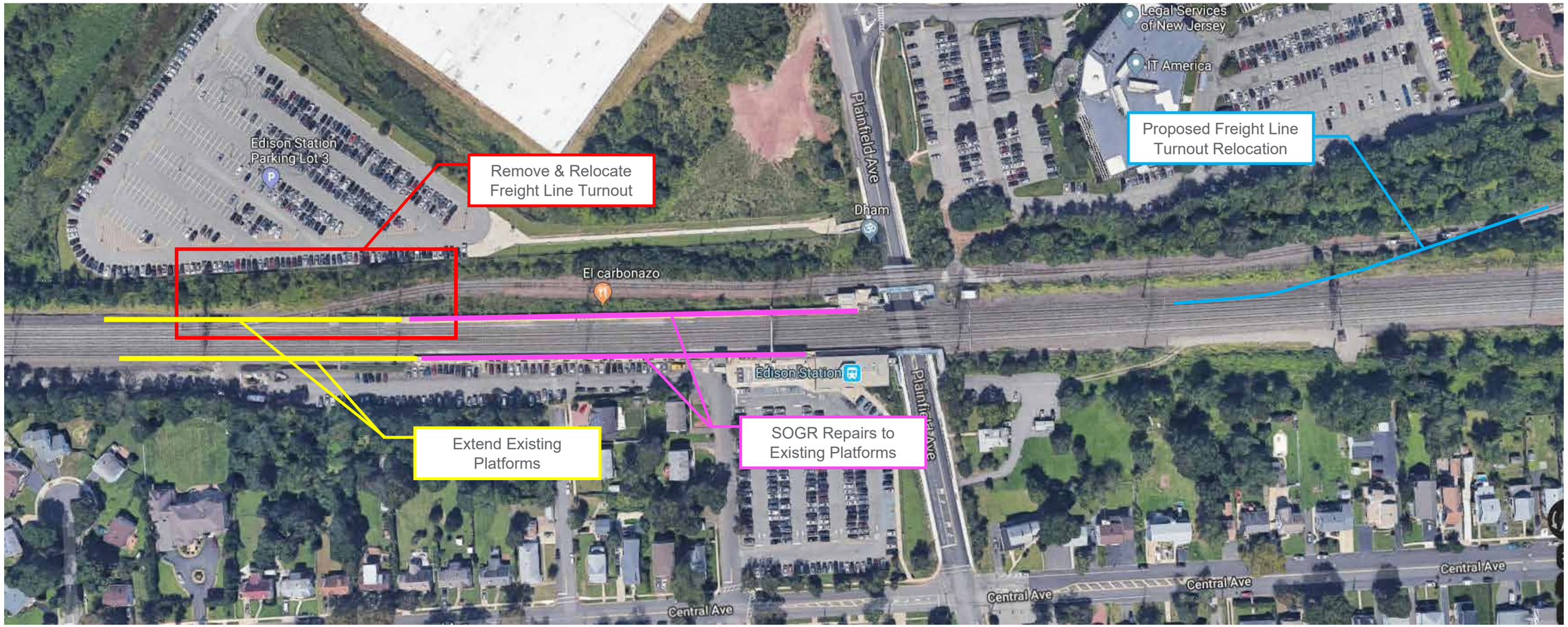
Value to Customers

- Facilitates passenger boarding and deboarding
- Increases on-time performance

Value to State

- Decreases dwell times and increase on time performance

PROJECT SHEET | EDISON STATION IMPROVEMENTS



PROJECT SHEET EDISON STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$36M

Comfort
An extended platform would ease boarding and deboarding and reduce dwell times to improve comfort

Health/Safety
Extending the platform to ease boarding and deboarding of trains would improve customer safety at the station

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Platform reconstruction, repairs, and painting would extend service life

Ridership/Capacity
Constructing extended platform would reduce dwell times and improve on-time performance

*The **reconstructed platforms**, additional repairs, and painting would **bring the station to a state of good repair**.*

PROJECT SHEET | ELIZABETH STATION IMPROVEMENTS

Description

Elizabeth Station is an elevated platform station which services NJ TRANSIT and Amtrak's Northeast Corridor (NEC). This heavily used station, which supports approximately 3,500 passenger boardings per weekday, must support a 12-car trainset. However, the current platforms are too short to accommodate such a long train length. As a result, not all cars can fit on the station platform, which makes it more challenging and time consuming for passengers to board and deboard the train. In addition, there is an opportunity to improve accessibility at the station. Several additional upgrades are required to bring the station into a state of good repair.

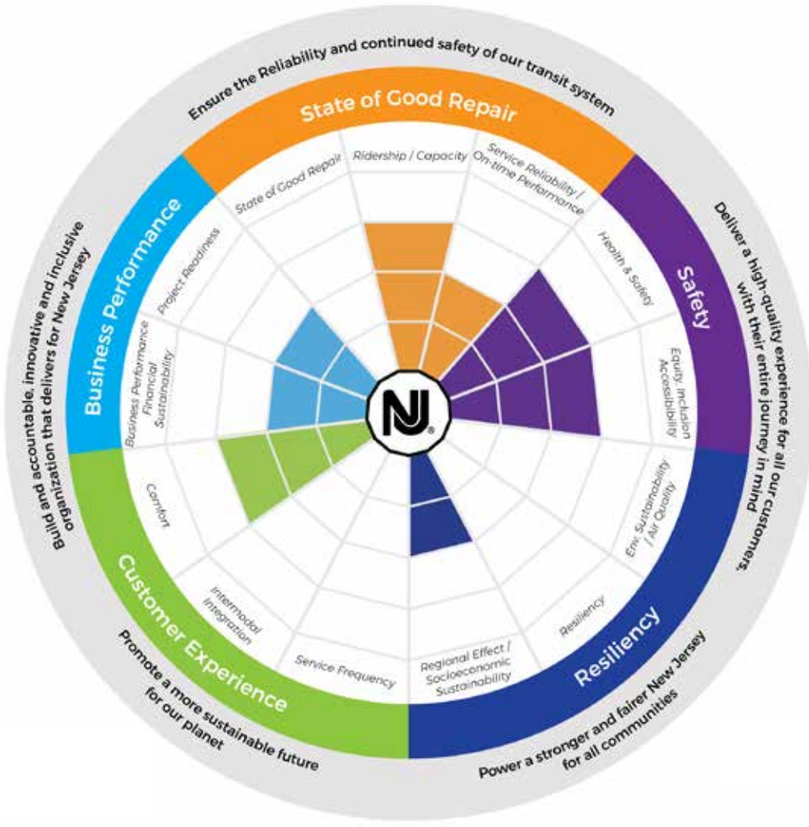
If funded, the project would reconstruct two longer length, high-level concrete passenger platforms to better accommodate full-length NJ TRANSIT trains. These platforms would be fully accessible, reduce dwell times, facilitate timely passenger boardings, and increase service speed. New station buildings with new elevators, stairs, ticketing offices, operational office spaces, and retail spaces would also be constructed. The station rehabilitation project would also accommodate a proposed future fifth track along the NEC planned to be built by Amtrak.

EXISTING:
Station Conditions

PROPOSED:
New Station

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$71 Million



Value to Customers

- Facilitate passenger boarding and deboarding
- Increases on-time performance
- Enhances experience for transit riders

Value to State

- A more accessible transportation network
- Decreases dwell times and increase on-time performance

PROJECT SHEET ELIZABETH STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$71M

Comfort
Improved platforms, new station buildings, and reduced dwell times would enhance customer comfort

Service Reliability
Longer platforms would reduce dwell times and improve on-time performance

Health/Safety
Extending the platform to ease boarding and deboarding of trains would improve customer safety at the station

Equity, Inclusion & Accessibility
Addition of new extended high-level platforms, elevators, and stairs would improve accessibility for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Station rehabilitation would **enhance state of good repair**, **accessibility**, **comfort**, and **on-time performance**.*

PROJECT SHEET | JERSEY AVENUE STATION

Description

TRANSIT and services the Northeast Corridor (NEC). Unlike the rest of the stations on the NEC, the existing Jersey Avenue station requires access enhancements. In addition, the inbound platform is located on a spur behind the outbound tracks, preventing trains from Trenton and Princeton from servicing the station. Inbound trains must originate on the spur and cross all NEC tracks to get on to Inbound Track 1. Given the amount of trains on the NEC, there are limited schedule openings to facilitate this cross over movement. Furthermore, any delays of these trains results in stack up delays on the NEC as well as the North Jersey Coast Line entering at Elizabeth.

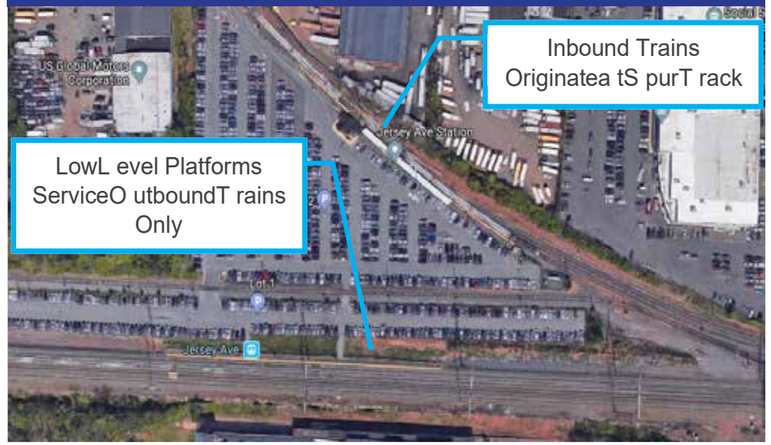
If funded, this project would include the construction of a new Jersey Avenue station relocated on the main NEC tracks. The new station would have accessible high-level platforms and enclosures for both eastbound and westbound tracks. An accessible pedestrian overpass would also be built to allow customers to reach both platforms. Ultimately, the new station would provide customers with a safer and more accessible, commuting experience with reduced delays.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

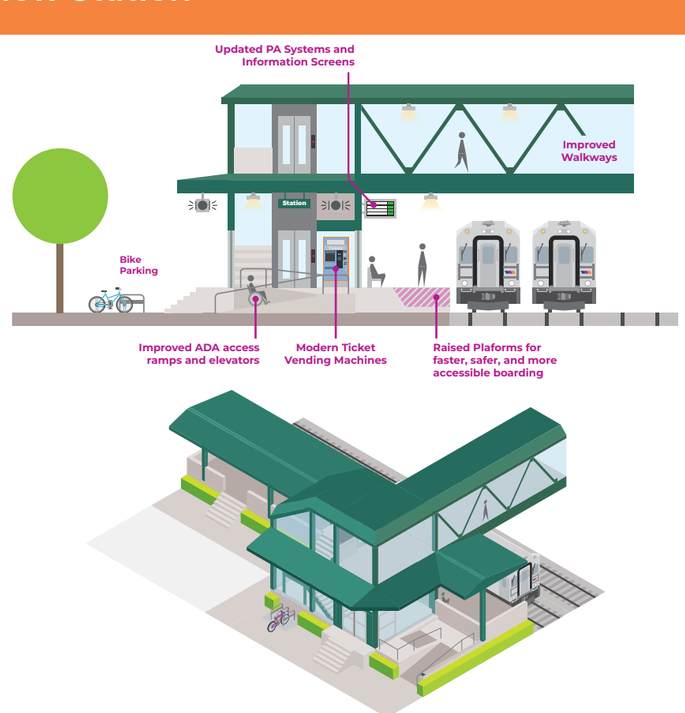
***$238 Million**

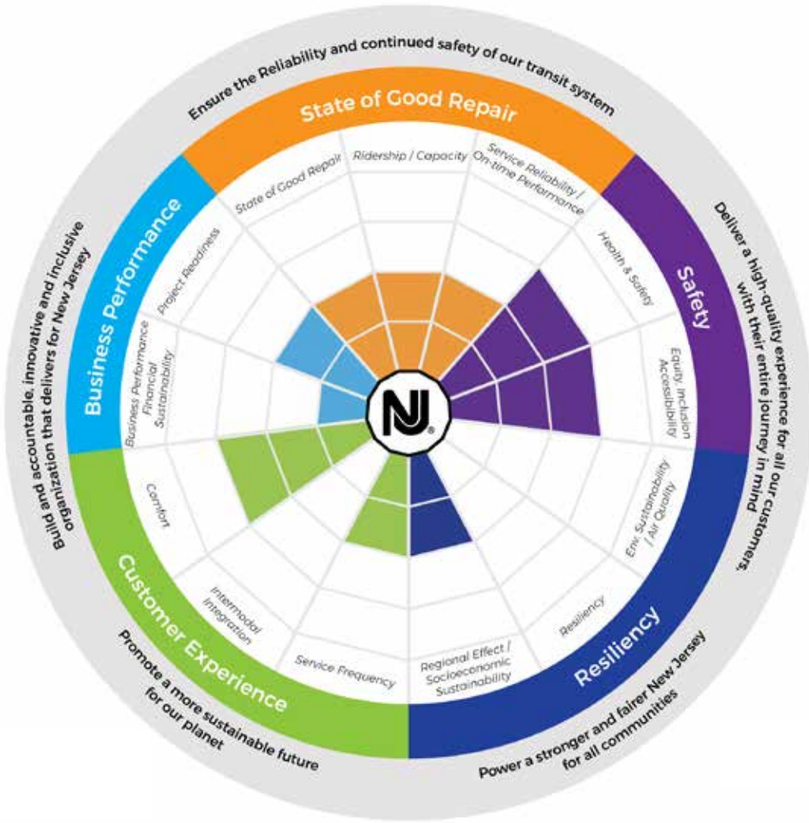
**Estimates are based upon concept for design*

EXISTING: Station Configuration



PROPOSED: New Station





Value to Customers

- Easier access to facility
- Enhanced comfort for customers waiting at station

Value to State

- More accessible transportation network

PROJECT SHEET JERSEY AVENUE STATION

ESTIMATED TOTAL PROJECT COSTS

$238M

Comfort
New station amenities would improve customer comfort

Equity, Inclusion & Accessibility
Accessible high-level platforms, enclosures, and a pedestrian overpass would improve accessibility for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Constructing a new station would reduce maintenance frequency

Health/Safety
Pedestrian overpass would safer and easier access to facility

A new Jersey Avenue station would ***add capacity to meet ridership growth*** *and* ***improve service reliability, comfort****, and* ***accessibility****.*

PROJECT SHEET | METUCHEN STATION IMPROVEMENTS

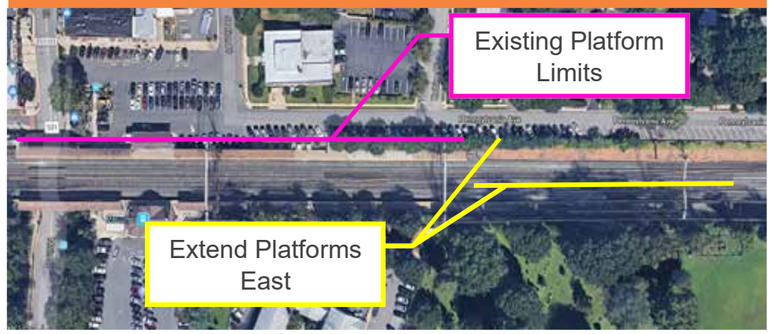
Description

Metuchen Station serves NJ TRANSIT and Amtrak's Northeast Corridor (NEC). This heavily used station, supporting approximately 3,528 passenger boardings per weekday, must support a 12-car trainset. However, the current platforms are too short to accommodate this long train length. As a result, not all cars of a train can fit on the station platform, making it more challenging and time consuming for passengers to board and deboard the train.

If funded, this project would extend the existing platforms approximately 360 feet east. The extension would allow an entire train set (12-cars) to fit at the station, decreasing dwell times, and facilitating necessary passenger boardings. This would ultimately increase rail operation efficiency and service speed. Additionally, existing platform replacement would extend its useful service life, enhance safety, and mitigate future maintenance concerns.

EXISTING: Station Conditions

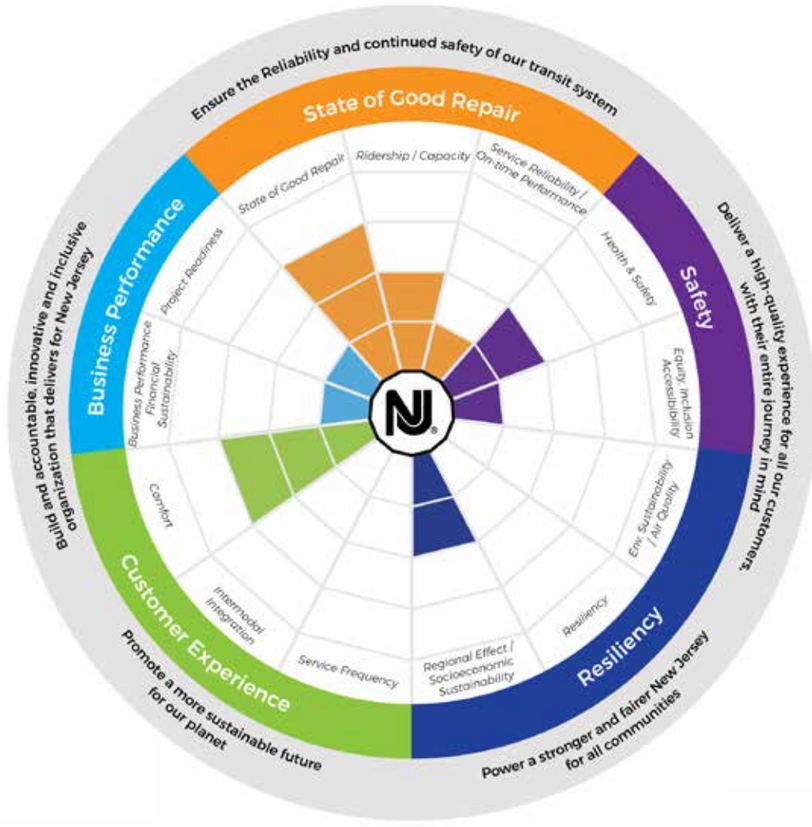
PROPOSED: Platform Extension



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$31 Million**

**Estimates are based upon concept for design*



Value to Customers

- Facilitates passenger boarding and deboarding
- Increases on-time performance

Value to State

- Decreases dwell times and increase on-time performance

PROJECT SHEET METUCHEN STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$31M

Comfort
Extended platforms would ease boarding and deboarding and reduce dwell times to improve customer comfort

Health/Safety
Extending platforms to ease boarding and deboarding of trains would improve customer safety at the station

State of Good Repair
Platform reconstruction and repairs would extend service life of station

Ridership/Capacity
Extending platforms would decrease dwell times and improve on-time performance

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The new longer platforms would **improve on-time performance**, **safety**, **comfort** and **bring the station into a state of good repair**.*

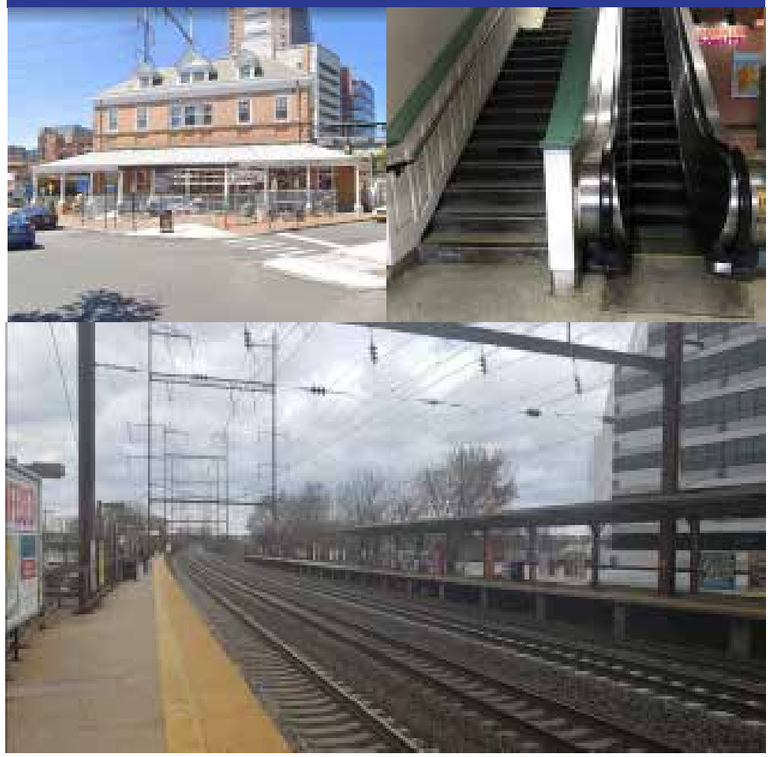
PROJECT SHEET | NEW BRUNSWICK STATION IMPROVEMENTS

Description

The New Brunswick Station is a station located in New Brunswick, and serves both NJ TRANSIT and Amtrak's Northeast Corridor (NEC). This heavily used station, which supports approximately 4,457 passenger boardings per weekday, must support a 12-car trainset. However, the current platforms are too short to accommodate such a long train length. As a result, not all cars can fit on the station platform, and this makes it more challenging and time consuming for passengers to board and deboard the train. The station is in need of rehabilitation.

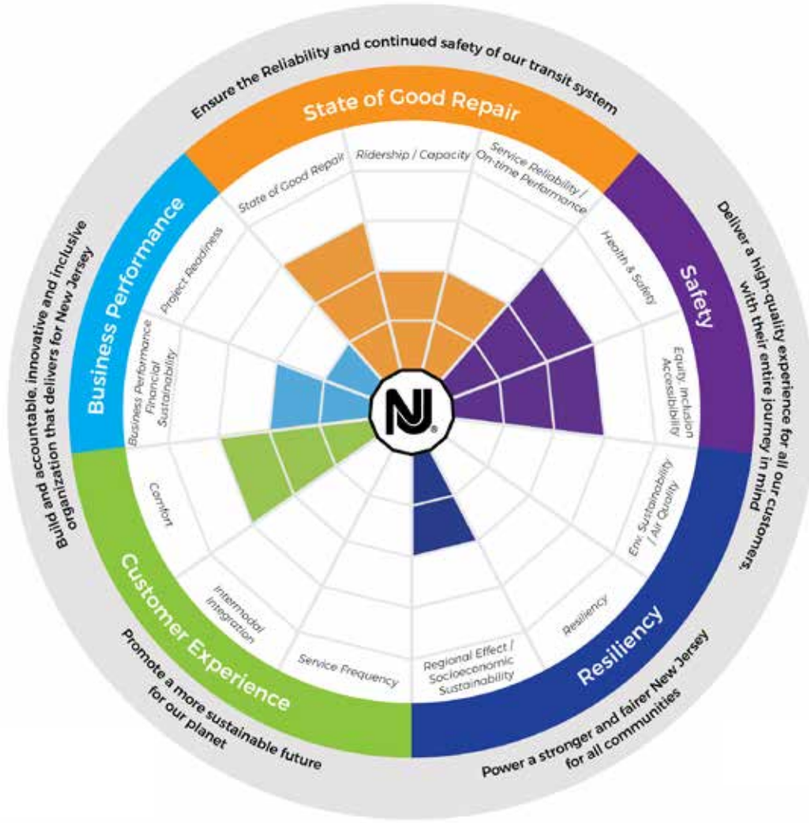
If funded, this project would extend the existing platforms to allow the entire 12-car trainset to fit at the station, which would ultimately decrease dwell times, facilitate passenger boardings, and increase service speed. Additionally, the existing platforms would be replaced and upgrades would be made to the existing station, including rehabilitating or replacing the elevators and escalators, installing new lighting and windows at the station, upgrading the HVAC system, and renovating the waiting room. The upgrades would provide a better experience for NJ TRANSIT customers and help mitigate future maintenance needs.

EXISTING: Station Conditions



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$23 Million



Value to Customers

- Facilitates passenger boarding and deboarding
- Increases on-time performance
- Provides enhanced amenities

Value to State

- Decreases dwell times
- Increases on-time performance

PROJECT SHEET NEW BRUNSWICK STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$23M

Equity, Inclusion & Accessibility
Repairs and upgrades to platforms, elevators, and escalators would improve accessibility for all customers

Comfort
Upgrading station amenities and easing boardings and deboardings would improve customer comfort

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Station rehabilitation would extend service life and decrease maintenance

Service Reliability
Extending platforms would decrease dwell times and improve on-time performance

Station improvements would ***enhance state of good repair****,* ***on-time performance****,* ***accessibility****, and* ***comfort****.*

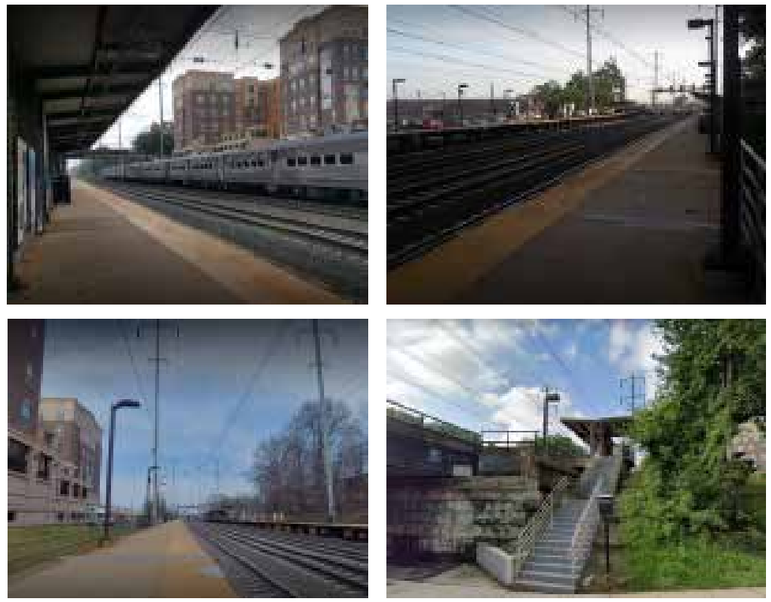
PROJECT SHEET | NORTH ELIZABETH STATION IMPROVEMENTS

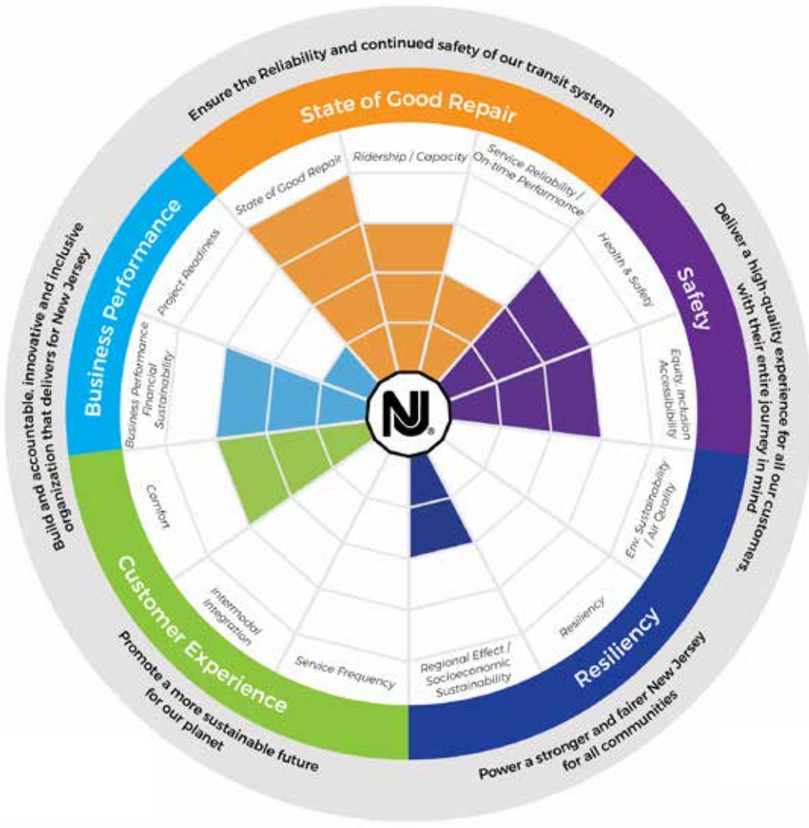
Description

The North Elizabeth Station is located in Elizabeth and services NJ TRANSIT and Amtrak's Northeast Corridor (NEC). The facility is currently obsolete, structurally deficient, and needs both structural and customer facing renewal.

If funded, this project would address the structural and cosmetic deficiencies and repair the station as needed to bring it to a state of good repair. Necessary work includes fully replacing the platform and canopies; rehabilitating the existing railing; and improving lighting and security at the station. This would ultimately extend the station's useful service life and mitigate future maintenance expenses. Additionally, the project would simultaneously provide an enhanced experience for customers using the station.

EXISTING: Station Conditions





ESTIMATED PROJECT COSTS (2020 DOLLARS):

$32 Million

Value to Customers

› Provides enhanced experience for customers

Value to State

› Replaces aging assets that may require higher maintenance costs

PROJECT SHEET NORTH ELIZABETH STATION IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$32M

Comfort
Station improvements and necessary repairs would enhance customer comfort

Health/Safety
Completing necessary repairs would improve customer safety

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Platform reconstruction and repairs would extend service life and reduce maintenance

Equity, Inclusion & Accessibility
Replacing the platform, rehabilitating railings, and improving lighting would improve accessibility for all customers

*Station improvements would enhance **state of good repair**, **accessibility**, **comfort**, and **safety**.*

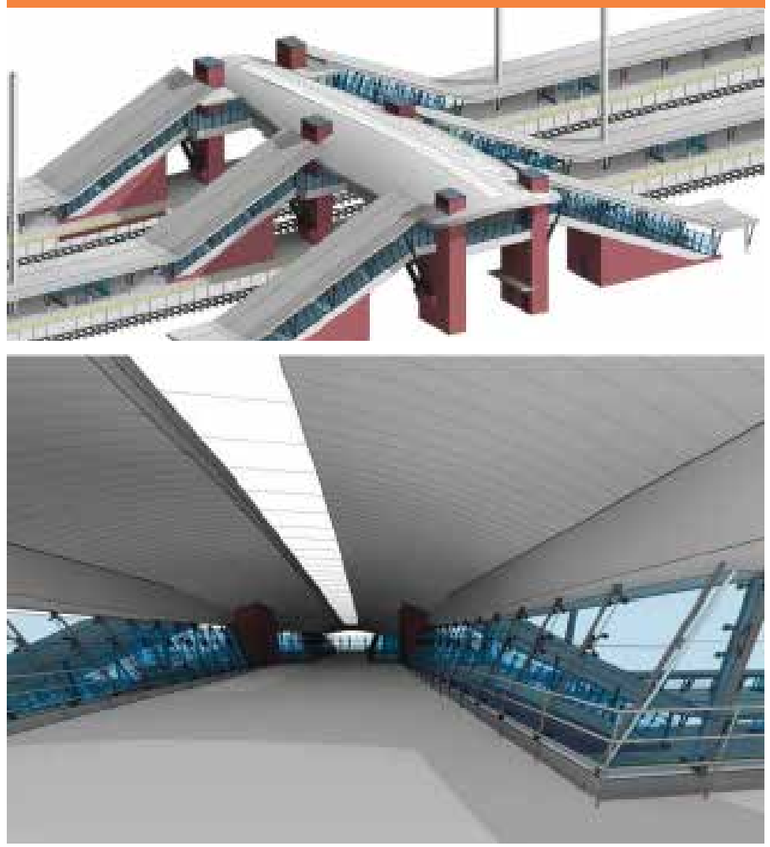
PROJECT SHEET | NORTH BRUNSWICK STATION

Description

The North Brunswick Station is a proposed new station on the Northeast Corridor (NEC). The station would be part of the overall enhancement planned for the NEC that includes Delco Lead, Midline loop, and the Jersey Avenue Station replacement.

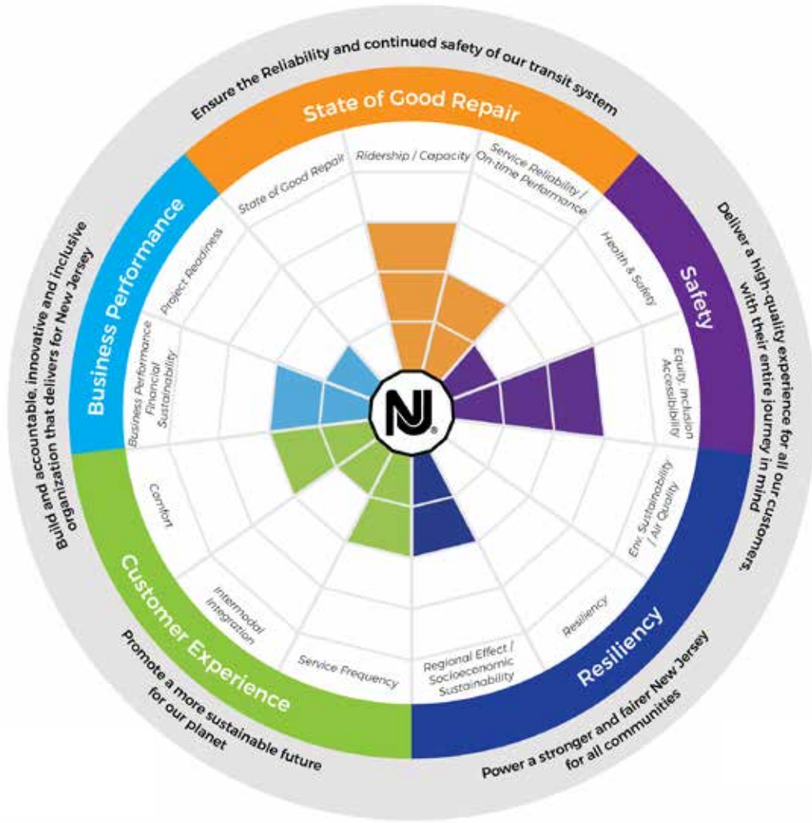
If funded, the new station would be in the proposed Main Street North Brunswick development area between the Midline Loop project and the Jersey Avenue station rehabilitation. The project would include construction of new high-level inbound side platform, a new high-level island outbound platform, elevators, a pedestrian bridge, station house, and parking. The new station would feature new accessibility features and would provide customers with a key additional point of entry into the NEC as well as more convenient access to the North Brunswick area. Collectively, the capital projects in this area would substantially improve service along the NEC, while increasing system capacity and access to keep pace with projected ridership growth. .

PROPOSED:
New Station



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$160 Million



Value to Customers

- Increases access for passengers
- Increases options for entry into NEC and access to surrounding area
- Enhances comfort for customers utilizing new, modern station

Value to State

- Creates additional point of entry for increased revenue streams and potentially reduces overcrowding at adjacent stations

PROJECT SHEET NORTH BRUNSWICK STATION

ESTIMATED TOTAL PROJECT COSTS

$160M

Equity, Inclusion & Accessibility
The new station would be accessible for all customers

Comfort
Station amenities would enhance customer comfort and the addition of the station would decrease overcrowding at adjacent stations

Ridership/Capacity
Constructing a new station would accommodate growing ridership along the NEC and in North Brunswick

Business Performance/Financial Sustainability
New station would create additional point of entry to the NEC

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

The new North Brunswick Station would ***improve and expand service along the Northeast Corridor****.*

PROJECT SHEET | ROSEVILLE CUT IMPROVEMENTS

Description

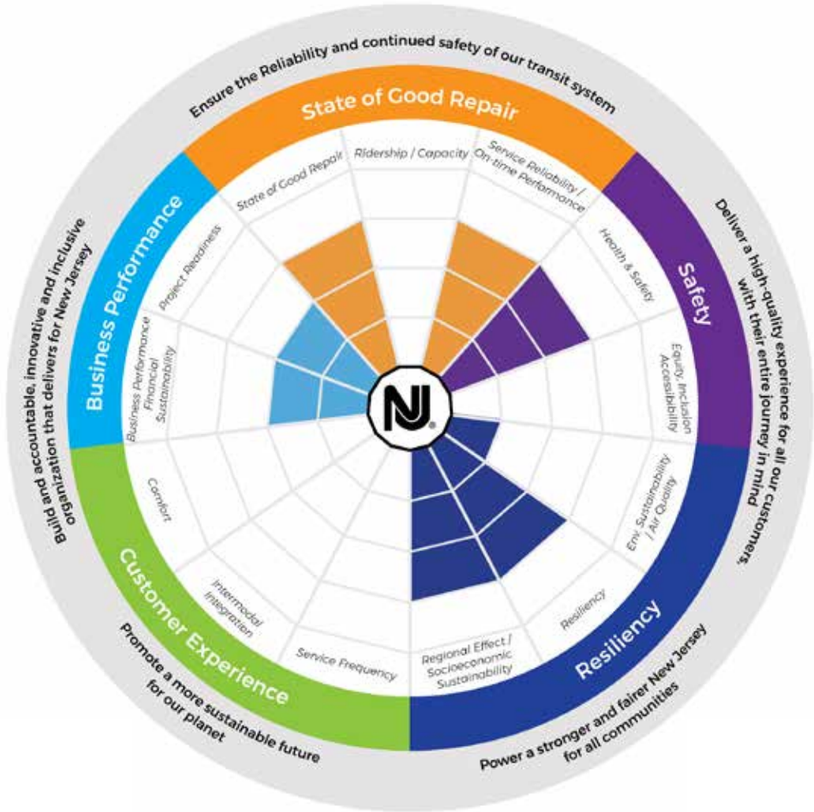
The Roseville Cut is a section of track that lies below the adjacent roadways and between two retaining walls just west of the Newark Broad Street Station. These tracks service NJ TRANSIT's entire ridership west of Newark Broad Street Station. There are various issues associated with this section of track: 1) the interlockings lack adequate lighting, which require safety enhancements; 2) there is missing and/or broken safety fencing along the perimeter at the street level, which also and allows debris from the sidewalk to foul the catenary system and tracks below; 3) poor drainage and frequent flooding within the cut interferes with track signals and causes delays; 4) congested site conditions are challenging for personnel to work within and typically require premium pay to perform maintenance or emergency work; 5) undersized rail sections in this area are subject to frequent rail breakage resulting from corrosive effects of extreme weather and flooding; and 6) the wall is deteriorating and creates a safety hazard.

If funded, this project would address the noted issues with the installation of new lighting at the interlocking; replacement of existing metal fencing and installation of new non-climbable protective fencing along adjacent sidewalks; installation of an adequate drainage system; replacement of the substandard rail sections within the project limits; and repair of the existing wall. Ultimately, addressing these issues would better protect NJ TRANSIT employees and the public, and will significantly mitigate service delays and reduce overall maintenance costs.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$111 Million

EXISTING: Cut, Fencing, and Rail Conditions



Value to Customers

- Improves reliability by upgrading the section of rail

Value to State

- Increases safety and service reliability
- Reduces maintenance frequency, providing more efficient use of public funds

PROJECT SHEET ROSEVILLE CUT IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$111M

Service Reliability
With reduced interlock conflicts, there would be reduced operational delays and reduced maintenance costs

Regional Effect/Socioeconomic Sustainability
Improvements to drainage infrastructure would reduce falsely triggered signals and the subsequent delays

Health/Safety
Improved lighting at interlocking and protective street level fencing for pedestrians would improve safety

State of Good Repair
Drainage improvements would mitigate frequent flooding from regular rain events

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **better protect customers and employees,** bring the rail to a **state of good repair**, and **reduce delays and service outages**.*

PROJECT SHEET | MORRISTOWN YARD AND POCKET TRACK

Description

The Morris & Essex (M&E) Line services nearly 60,000 NJ Transit passengers a day between Hackettstown, Hoboken, and Penn Station NY. West of Morristown Station on the M&E Line is an existing unused rail yard, formally referred to as the Morristown Yard. This yard is located below the main tracks and is accessed by a 3,000-foot yard lead track that diverts trains from the main eastbound track just west of the station. However, it can only be accessed by trains traveling westbound and there is currently no interlocking to allow westbound trains to switch onto the eastbound track without significantly impacting railroad traffic. Furthermore, the yard and part of the lead track are in a floodplain, making them a poor option for long term train storage.

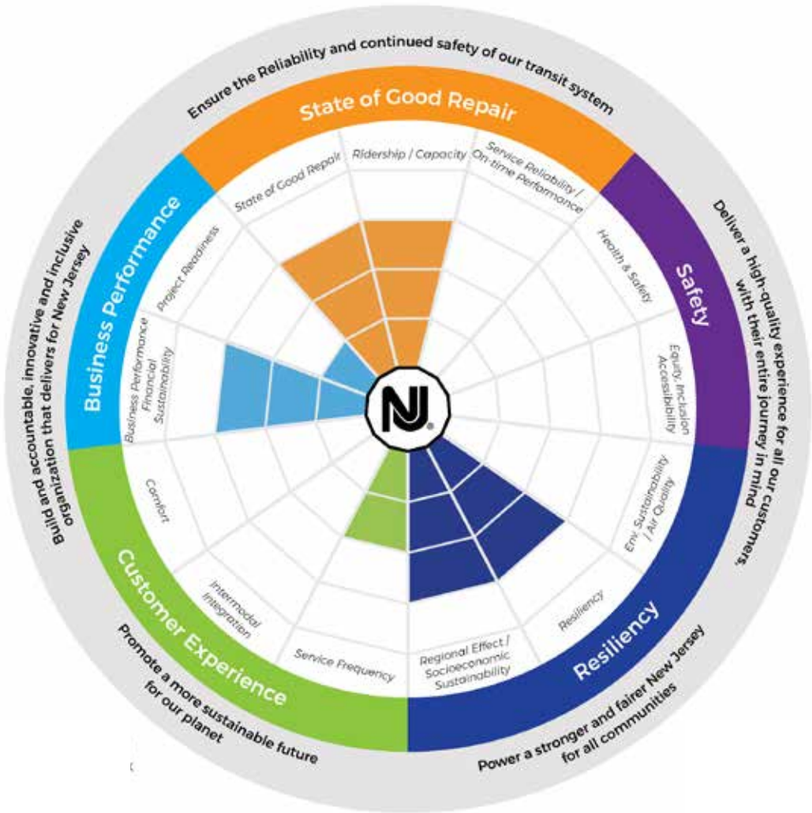
If funded, this project would install an interlocking east of Morristown Station to allow westbound trains to more effectively access the yard lead and enter Morristown Yard. This would also eliminate the need for trains terminating at Morristown Station to travel an additional 8 miles west to Dover Yard in order to turn back east. Additionally, the existing yard tracks and yard lead would be raised above the flood plain to allow for resilient short term and long-term train storage. Providing storage and turning capabilities at Morristown Yard would allow increase train frequency and capacity on the M&E Line while also providing additional storing options for NJ TRANSIT trains.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$148 Million**

**Estimate based upon concept design*

EXISTING: Morristown Yard



Value to Customers

- Increases number of train time slots
- Provides more reliable service
- Increases on-time performance

Value to State

- Lowers operating costs, which allows for more efficient use of public funds
- Provides resilient infrastructure to prevent damage to existing revenue fleet during extreme events

PROJECT SHEET MORRISTOWN YARD AND POCKET TRACK

ESTIMATED TOTAL PROJECT COSTS

$148M

Business Performance/Financial Sustainability
Increasing capacity on the Morris & Essex line, while minimizing unnecessary travel time for trains going out of service, would improve business performance

Ridership/Capacity
Additional storage and turning capabilities at the yard would increase train frequency and on-time performance of trains on the Morris & Essex line

Resiliency
Raising the yard lead, tracks, and storage above the flood plain would reduce flooding risk

State of Good Repair
Replacing the obsolete yard lead track and upgrading the rail yard would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would provide **better yard access** resulting in **increased capacity and frequency** and **improved on-time performance along the Morris & Essex line**.*

PROJECT SHEET | DELCO LEAD AND COUNTY YARD EXPANSION

Description

County Yard and Delco Lead located in New Brunswick, is an obsolete and undersized rail yard facility used to store trains along the Northeast Corridor (NEC). The existing yard consists of three electrified tracks with storage capacity for 40 rail cars (four 10-car trainsets) and an undersized Service and Inspection (S&I) facility. Overflow NEC trains are currently stored at either the Morrisville Yard or the Meadowlands Maintenance Complex (MMC). However, storing trains at either alternative facility is impractical because the MMC floods frequently, and Morrisville logistics make it costly and inefficient requiring trains to travel to the western end of the NEC for storage. Additionally, severe flooding can cut off access between Morrisville Yard and Trenton.

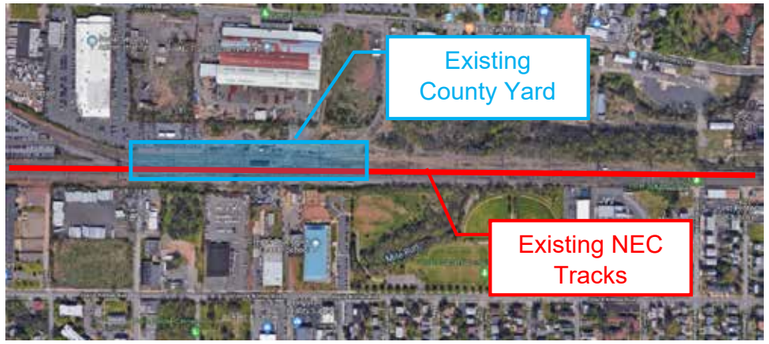
The Delco Lead and County Yard Expansion is a multifaceted project that would address the operations, storage, and resiliency needs along the NEC. The first two phases would include the construction of a new S&I facility, which would contain crew quarters and equipment storage space; and the expansion of County Yard, which would contain five tracks with the capacity to store 120 rail cars in an area resilient against flooding. The final phase is the construction of a new Delco Lead track that would extend 3.5 miles south and have the capacity to store an additional 288 rail cars. This new track would meet up with the proposed Midline Loop Project in North Brunswick. Ultimately, the creation of a robust, more centrally located storage and inspection facility as part of the Delco Lead and County Yard Expansion would significantly improve NJ TRANSIT's operational efficiency while reducing costs. It would also substantially enhance the agency's ability to provide timely and reliable service to its customers, especially following extreme weather events.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

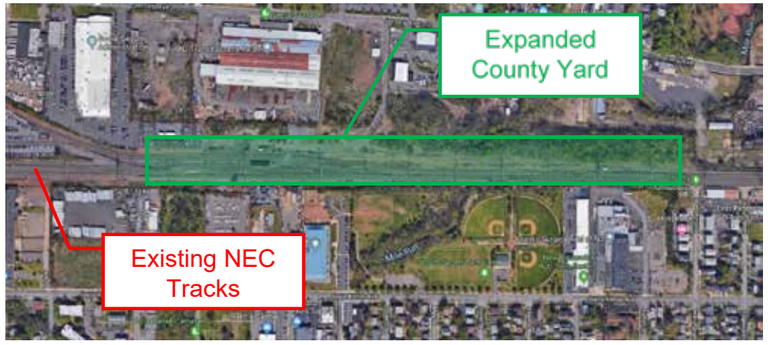
***$381 Million**

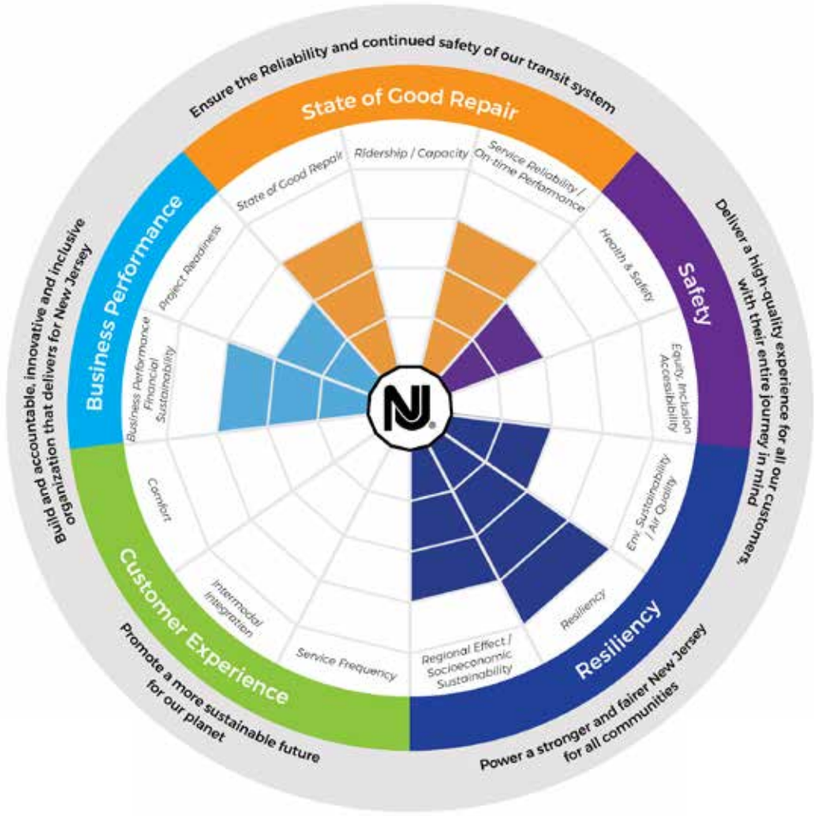
** Total estimated 2020 project cost indicates total cost over span of the project and includes funds already spent.*

EXISTING: County Yard



PROPOSED: Expanded County Yard





Value to Customers

- Reduces train delays following extreme weather events

Value to State

- Lowers operating cost, which allows for more efficient use of public funds
- Provides resilient infrastructure to prevent damage to existing revenue fleet during extreme events

PROJECT SHEET DELCO LEAD AND COUNTY YARD EXPANSION

ESTIMATED TOTAL PROJECT COSTS

***$381M**

**TOTAL ESTIMATED 2020 PROJECT COST INDICATES TOTAL COST OVER SPAN OF THE PROJECT AND INCLUDES FUNDS ALREADY SPENT*

Business Performance/Financial Sustainability
The project would reduce train down-time and ensure NJ TRANSIT can respond quickly to unforeseen challenges

Resiliency
The new track would significantly enhance the reliability and service delivery of the NJ TRANSIT rail network while providing additional storage in an area not prone to flooding

Regional Effect/Socioeconomic Sustainability
Congestion would decrease by reducing movements of trains stored at remote locations

State of Good Repair
Replacing the obsolete Delco Lead track and building a new Service & Inspection Facility would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*A new Delco Lead would extend 3.5 miles south, **store 288 additional cars**, and **include a new Service & Inspection Facility**.*

PROJECT SHEET | SMALL YARDS REHABILITATION PROGRAM

Description

NJ TRANSIT operates 15 rail yards throughout the state and along various lines. These yards play a vital role in NJ TRANSIT's ability to provide safe, efficient, and reliable service to its customers. At the same time, these facilities are essential in the Agency's compliance with federal regulations. Each facility is used daily to store, inspect, and maintain the agency's rail fleet. These yards also play a key role as turning tracks to allow trains to change direction on a rail line, which is essential to facilitate efficient rail operations. Much of the existing infrastructure at the yards, including inspection pits, fuel facilities, lighting, and personnel facilities, has exceeded its recommended service life and need to be rehabilitated or completely replaced. Furthermore, many of these yards are to too small to handle the service and inspection needs of the expanding fleet, resulting in decreased efficiency and higher operational costs.

If funded, the Small Yards Rehabilitation Program would prioritize equipment replacement and facility rehabilitation at 11 of the 15 yards, which are considered NJ TRANSIT's "small" yards. These upgrades would restore the maintenance facilities to a state of good repair while providing both expanded capacity and capability for servicing the growing NJ TRANSIT rail fleet. It is also vital that the infrastructure issues at the yards are addressed, as rail maintenance functions are mandated by the FRA, and efficient routine preventative maintenance is essential to reducing delays due to equipment problems. Furthermore, logistical improvements would be implemented at each location to streamline the movement of trains within the yards, which will ultimately increase overall efficiency and mitigate potential delays.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

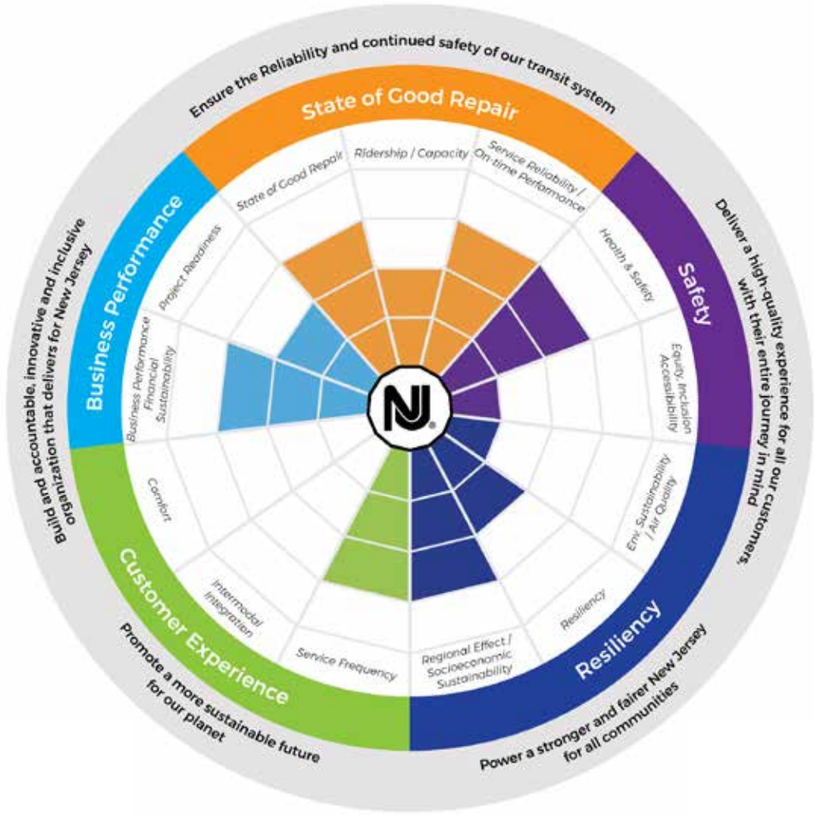
***$435 Million**

**Estimate based upon concept design*

EXISTING: Bay Head and Port Morris Rail Yards

Bay Head Rail Yard

Port Morris Rail Yard



Value to Customers

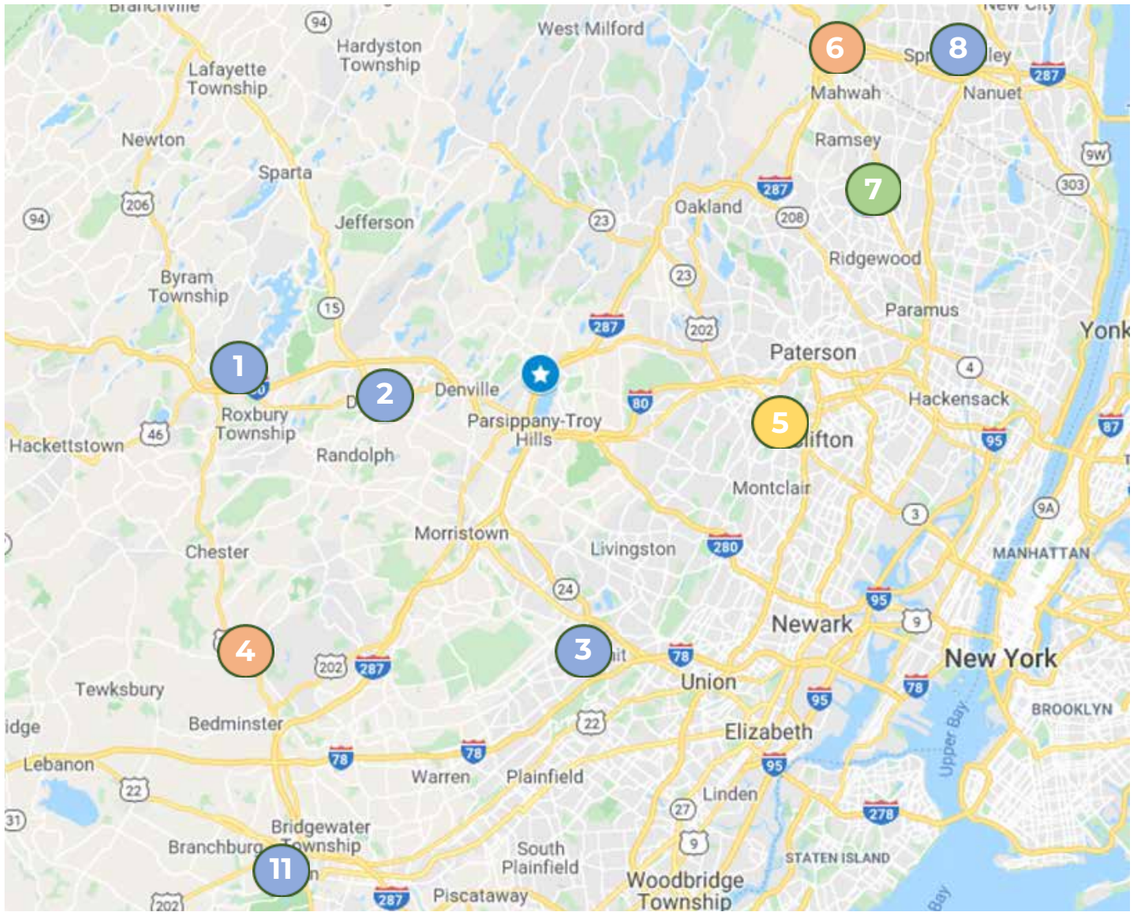
- Increases equipment reliability
- Reduces equipment failure delays

Value to State

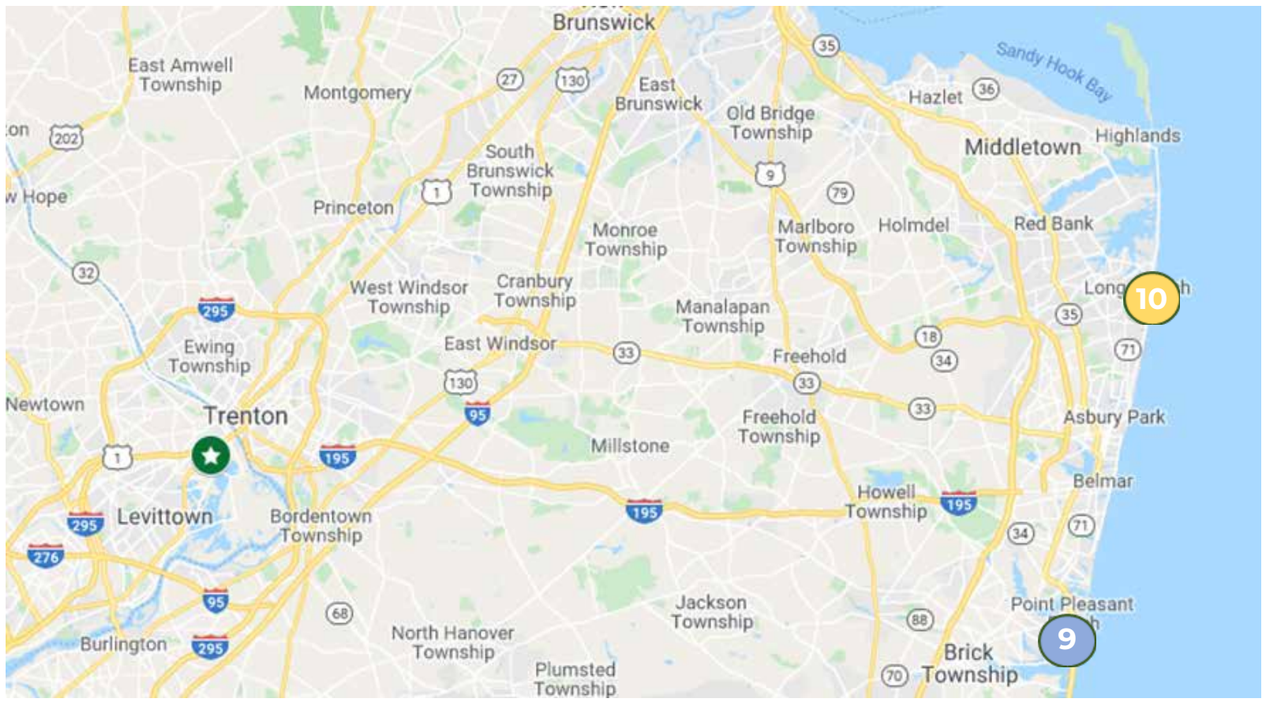
- Lowers operating costs
- Reduces potential injuries associated with on-site maintenance work
- Improves equipment maintenance resulting in reduced life cycle and recovery costs
- Facilitates compliance with FRA regulations

PROJECT SHEET | SMALL YARDS REHABILITATION PROGRAM

Northern Yards



Southern Yards



	Yard	Durations (yrs)		Major Scope Items[1]		
		Design	Constr.	Pedestal Pit	S&I /Mech. Facility	Personnel Facility
1	Port Morris	2	3		✓	
2	Dover	2	3		✓	
3	Summit[1]	1	1			
4	Gladstone	1	1			✓
5	Great Notch	1	2	✓		
6	Suffern	1	2	✓		✓
7	Waldwick	1	2	✓		
8	Woodbine	1	1			✓
9	Bayhead	1	2		✓	
10	Long Branch	1	2	✓		
11	Raritan	1	1			✓

(1) Only major scope items are tabulated. Minor scope items include but are not limited to: new fuel pads; improved lighting; new equipment; new nice vision cameras; wayside power upgrades; MEP upgrades; new sand towers

Legend

Phase	Start Year	Yards
1	2021	Waldwick
2	2024	Suffern; Gladstone
3	2027	Long Branch; Great Notch
4**	TBD	Port Morris; Dover; Summit; Woodbine; Bayhead; Raritan

*** Work for remaining yards to be completed in subsequent phases and years that are still to be determined (TBD)*

PROJECT SHEET SMALL YARDS REHABILITATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$435M

Business Performance/Financial Sustainability
Upgrades would reduce maintenance costs and increase operational capacity and efficiency

Service Reliability
Better serviced trains would result in better on-time performance and more reliable operations

Regional Effect/Socioeconomic Sustainability
Upgrades to maintenance equipment would ensure smoother rail operations with fewer equipment failures

State of Good Repair
Upgrading and replacing maintenance equipment would improve state of good repair for both the yards and train coaches

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Restore maintenance facilities to a state of good repair and **expand capacity and capabilities for a growing rail fleet**.*

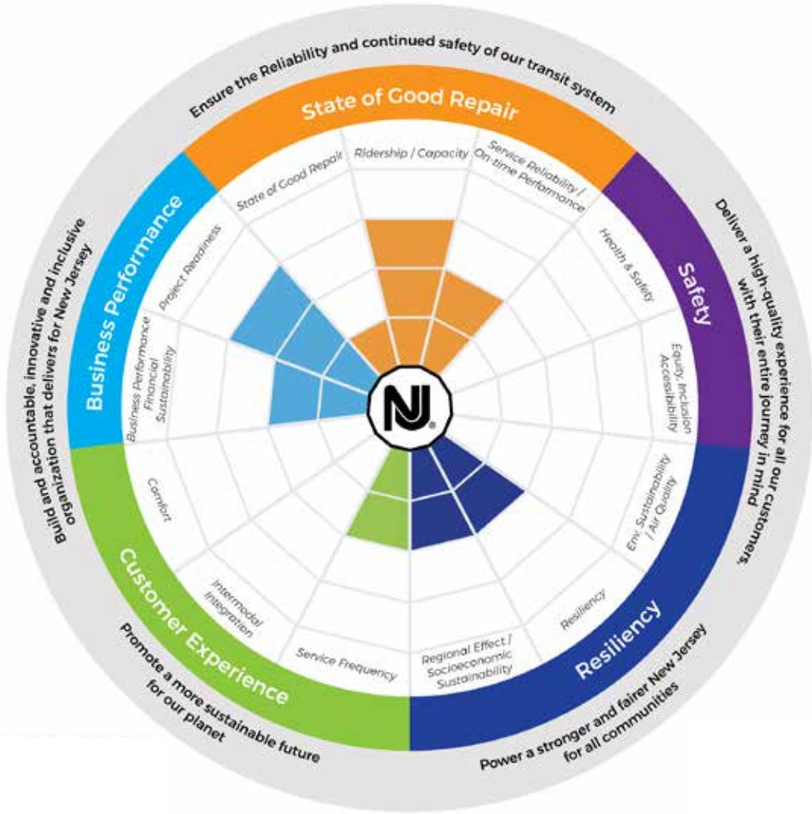
PROJECT SHEET | MODIFY LYONS SIDING ON GLADSTONE LINE

Description

The Gladstone line services NJ TRANSIT passengers between Gladstone and Summit, where it then merges into the Morristown Line and continues east towards Hoboken and New York Penn Station. The Gladstone line only operates with a single track, which requires inbound and outbound trains to coordinate their operations. These operations rely heavily on the use of siding track to allow the opposing train to pass. Bernardsville Station and Stirling Station are approximately six miles apart with the only two siding tracks between them located at the stations. This is a significant distance to travel between siding tracks, which greatly reduces the number of trains that can run along the line.

If funded, this project would modify the existing Lyons siding located east of Lyons Station so that it can be used by passenger rail. The existing Lyons siding can only be used by maintenance equipment because it is not controlled, meaning it has no signals and the switch to get into the siding is manually controlled. Converting this to a controlled siding would allow more inbound and outbound trains on the Gladstone Line and would provide greater flexibility of operation on the single track, which would ultimately mitigate train delays and provide a more reliable commute for NJ TRANSIT customers.

EXISTING:
Lyons Siding



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$11 Million

Value to Customers

- Reduces train delays from bi-directional travel on a single track, and reduces headways

Value to State

- Increases on-time performance, safety, and service reliability, which will bolster public perception

PROJECT SHEET MODIFY LYONS SIDING ON GLADSTONE LINE

ESTIMATED TOTAL PROJECT COSTS

$11M

Business Performance/Financial Sustainability
Converted siding would increase the capacity of the line and passenger revenue, while decreasing delays

Service Reliability
Conversion to a controlled siding would provide a more reliable commute for customers

Regional Effect/Socioeconomic Sustainability
Converted siding would allow more inbound and outbound trains with enhanced operational flexibility

Ridership/Capacity
Allow more inbound and outbound trains on the Gladstone Line

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Converting to a controlled siding would **allow for more trains on the line**, **greater flexibility**, and **mitigate delays**.*

PROJECT SHEET | NEW BOONTON YARD

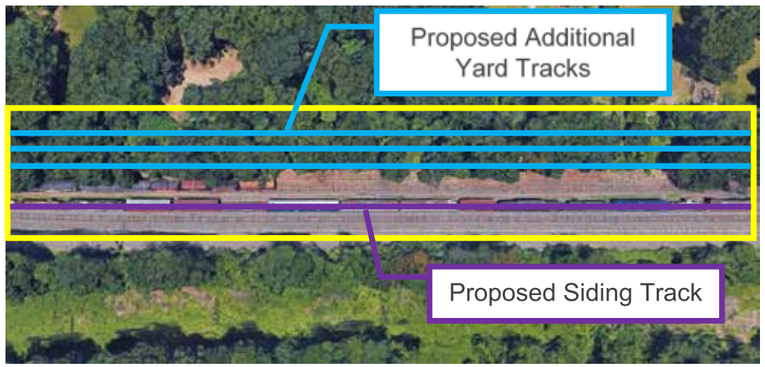
Description

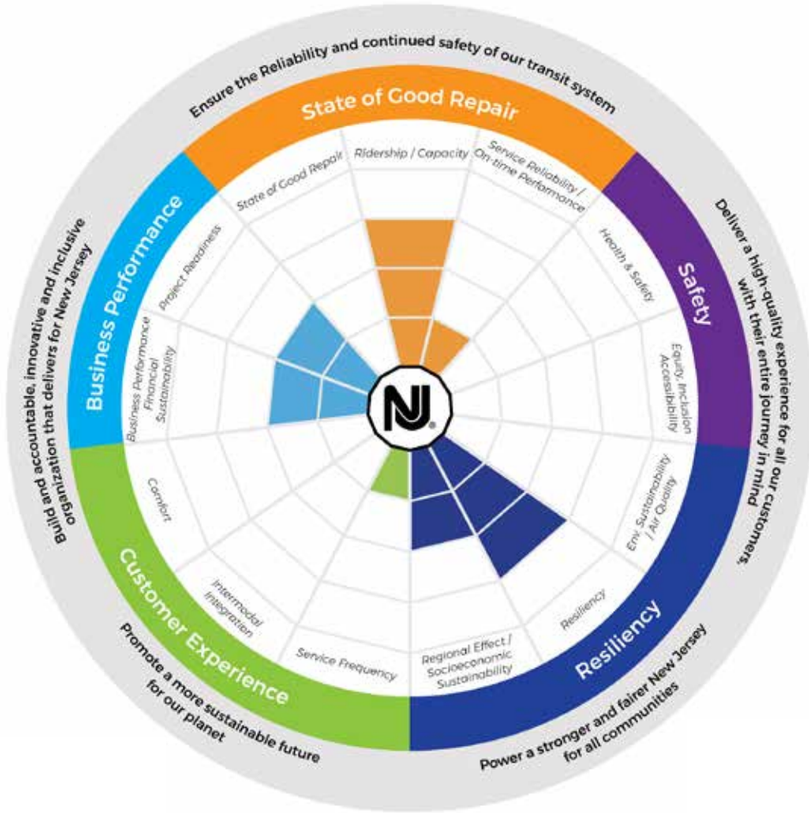
The Montclair-Boonton line services an average of 18,800 passengers per weekday between New York Penn Station and Mount Olive. Most of the line operates with two tracks to allow inbound trains and outbound trains to operate on separate tracks. Just east of Montclair State University Station, however, the two tracks merge into a single track which continues west to Denville Station. This requires inbound and outbound trains to coordinate their operations; these trains rely heavily on the use of siding track to allow the opposing train to pass. They also rely on rail yards for anticipated layovers in addition to providing storage. The existing siding track and rail yard west of Boonton Station is obsolete and in need of replacement.

If funded, this project would replace the existing Boonton rail yard and siding track with new and additional track, interlockings, and signals just west of Boonton Station. This would allow more inbound and outbound trains on the Montclair-Boonton Line and will provide greater operational flexibility on the single track, which would ultimately mitigate train delays and provide a more reliable commute for NJ TRANSIT customers.

EXISTING:
Boonton Yard

PROPOSED:
New Boonton Yard





ESTIMATED PROJECT COSTS (2020 DOLLARS):

$40 Million

Value to Customers

› Reduce train delays from bi-directional travel on a single track, and reduces headways

Value to State

› Increases on-time performance, safety, and service reliability, which will bolster public perception

PROJECT SHEET NEW BOONTON YARD

ESTIMATED TOTAL PROJECT COSTS

$40M

Ridership/Capacity
Adding additional track, interlockings, and signals would increase capacity on Montclair-Boonton Line

Business Performance/Financial Sustainability
Line capacity increases and reduced operational delays would improve business performance

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Business Performance/Financial Sustainability
Adding additional track would provide greater operational flexibility

Regional Effect/Socioeconomic Sustainability
Improvements would reduce delays and improve operational flexibility to respond to service disruptions

Replacing the yard would ***enhance state of good repair****,* ***reliability****,* ***capacity****, and* ***business performance****.*

PROJECT SHEET | MIDLINE LOOP

Description

The Northeast Corridor (NEC) is NJ TRANSIT's most heavily used rail line and serves over 122,000 passengers on an average weekday, which makes up nearly 39% of total ridership. There currently is a major operational challenge on the corridor in New Brunswick at the existing Jersey Avenue Station. Eastbound trains originating at the station must move from the outbound Track 4 across all the NEC tracks to the inbound Track 1. This move requires use of the County Yard Interlocking just east of the station. Given the amount of NJ TRANSIT and Amtrak trains on the NEC, there are limited schedule windows to permit these train movements. Thus, delays with Jersey Avenue departures results in stack-up delays along the entire NEC as well along the North Jersey Coast Line (NJCL) which enters NEC territory near Rahway.

If funded, this project would include installing a fifth track (Track 5) along the NEC in North Brunswick, which would be an extension of the proposed Delco Lead track. The proposed Delco Lead track must be installed before the Midline Loop can become operational. The new Track 5 would continue onto a new viaduct structure that loops over the NEC right-of-way and enters back onto inbound Track 1. This track and flyover would eliminate the need for eastbound trains from Jersey Avenue Station to occupy the interlocking while moving across the NEC from Track 4 to Track 1. The Midline Loop project would have substantial operational benefits for both NJ TRANSIT and Amtrak, as it would mitigate operational delays for both agencies, improve on-time performances, reduce congestion, and provide much-needed capacity augmentation. Its operational benefits would also be magnified by the proposed North Brunswick Station and new Jersey Avenue Station projects.

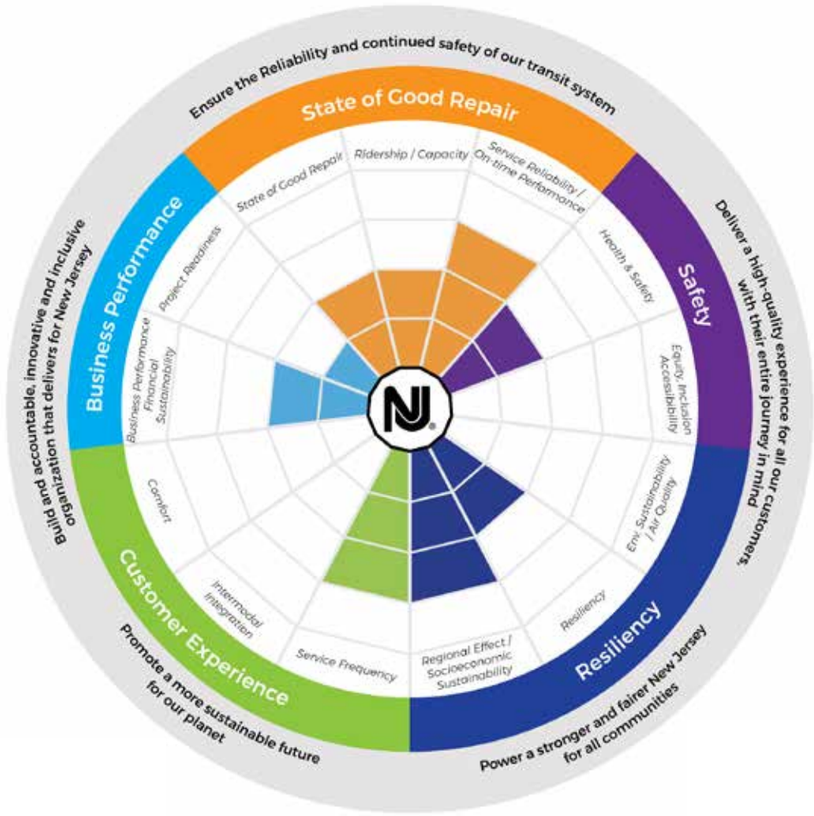
ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$306 Million**

**Estimate based upon concept design*

EXISTING: Northeast Corridor

PROPOSED: Midline Loop Viaduct



Value to Customers

- Increases on-time performance
- Creates more train time slot openings
- Decreases delays caused by conflicts at the interlocking

Value to State

- Increases on-time performance and service reliability
- Lowers operating cost, which allows for more efficient use of public funds

PROJECT SHEET MIDLINE LOOP

ESTIMATED TOTAL PROJECT COSTS

$306M

Service Reliability
Delays and congestion along NEC would be significantly reduced as train movements on the interlocking would bypass Tracks 1-4

Business Performance/Financial Sustainability
Operational conflicts with Amtrak and NJ TRANSIT would be eliminated, allowing for more regular and reliable service along NEC

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Regional Effect/Socioeconomic Sustainability
An additional fifth track would eliminate conflicts with the interlocking for NJ TRANSIT and Amtrak

Service Quality/Frequency
The project would create more capacity due to an increased number of time slots for trains

*Midline Loop would **mitigate operational delays**, **reduce congestion**, and **improve on-time performance** on NEC.*

PROJECT SHEET | HUNTER FLYOVER

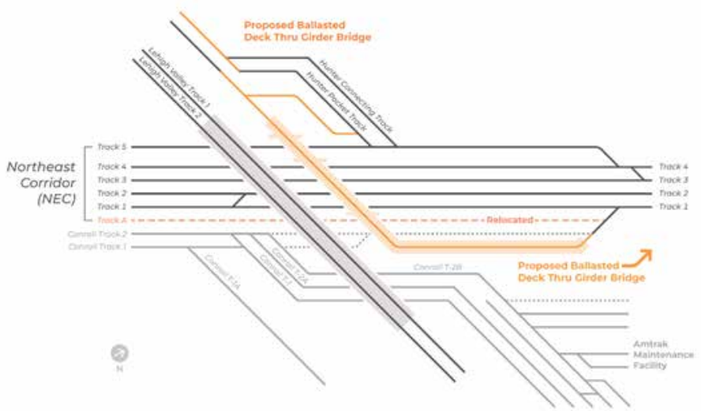
Description

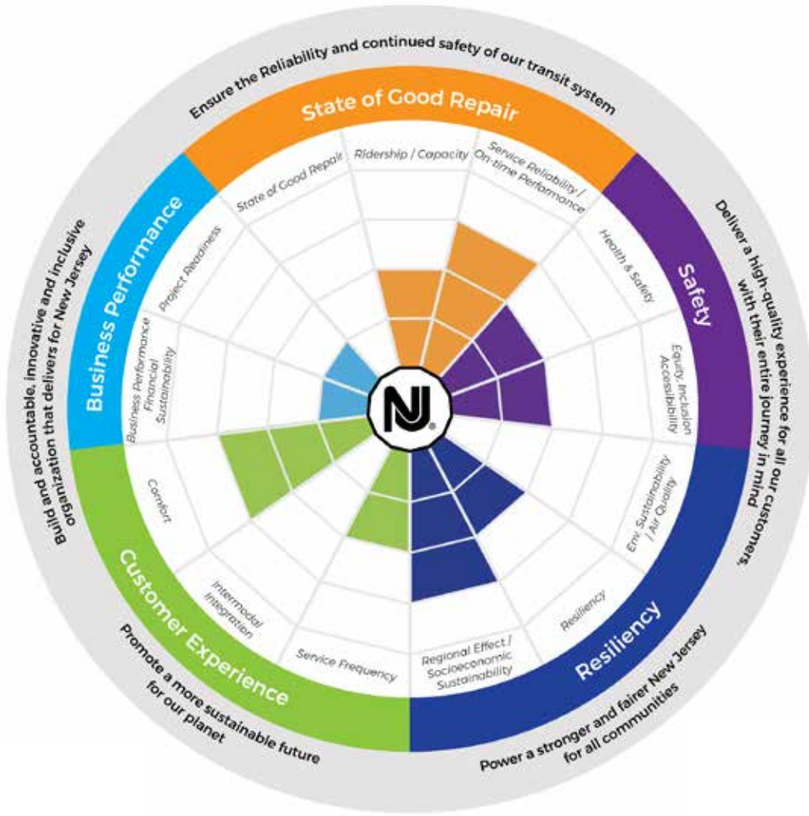
The Raritan Valley Line (RVL) extends from its western terminus in High Bridge eastward, and joins the Conrail-owned Lehigh Line at Aldene, NJ (near Cranford). Then continues on Conrail's Lehigh Line into Newark, where it enters the Amtrak-owned Northeast Corridor (NEC) approximately two miles west of Newark Penn Station. At a location known as Hunter Interlocking, eastbound trains on the RVL connect to the NEC on Track 4 (outbound) and must either cross over all of the existing NEC tracks at grade to reach inbound Track 1, or travel against the normal flow of rail traffic along Track 4 to reach Newark Penn Station. These complex movements create conflicts along the main stretch of the NEC between Newark Penn Station and Newark Airport Station, typically resulting in delays for the RVL trains as they wait for an open slot to enter the corridor.

If funded, the proposed Hunter Flyover project would mitigate these issues by constructing a structure over the NEC that will carry the RVL eastbound trains onto inbound Track 1, thereby eliminating the necessity to cross the NEC main tracks at grade. Elimination of crossover movements would substantially mitigate delays on both the RVL and NEC and increase train on-time performance. In addition, this operational improvement would support future growth of RVL service.

EXISTING:
RVL Merge with NEC

PROPOSED:
Hunter Flyover





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$300 Million**

** Cost includes Track A work*

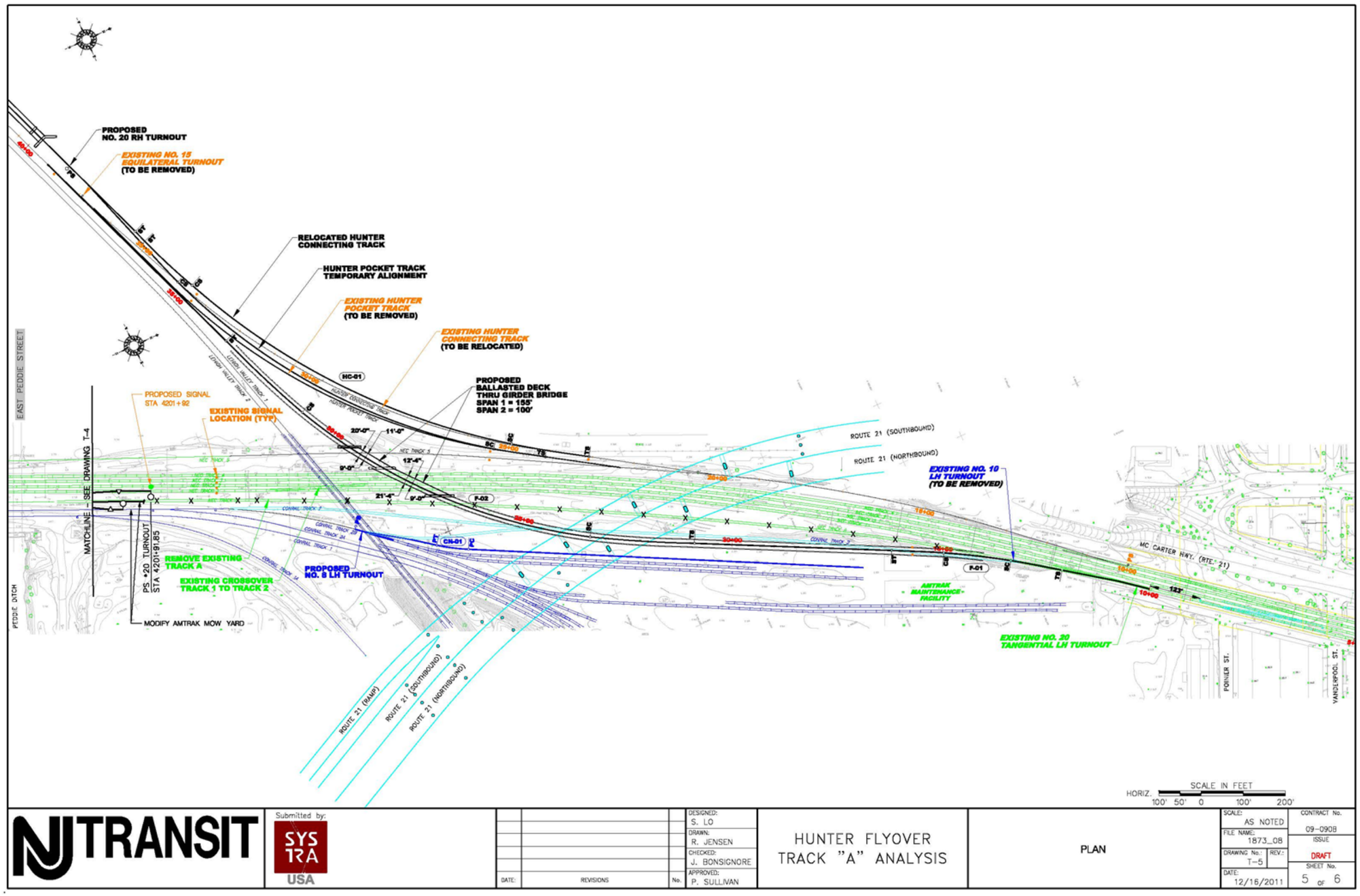
Value to Customers

- Reduces train delays
- Enables more reliable service and increased on-time performance

Value to State

- Minimizes revenue loss from service disruptions
- Provides for future revenue growth by supporting future growth of RVL

PROJECT SHEET | HUNTER FLYOVER



NJTRANSIT

Submitted by: SYSTRA USA

DATE:	REVISIONS	No.

DESIGNED: S. LO
DRAWN: R. JENSEN
CHECKED: J. BONSIGNORE
APPROVED: P. SULLIVAN

HUNTER FLYOVER
TRACK "A" ANALYSIS

PLAN

SCALE: AS NOTED
FILE NAME: 1873_08
DRAWING No.: T-5
REV.:
DATE: 12/16/2011

CONTRACT No. 09-0908
ISSUE DRAFT
SHEET No. 5 OF 6

PROJECT SHEET HUNTER FLYOVER

ESTIMATED TOTAL PROJECT COSTS

$300M

Regional Effect/Socioeconomic Sustainability
The new flyover would mitigate delays on the Raritan Valley Line and NEC and is a vital link in restoring direct NYC service from the Raritan Valley Line

Safety
The new flyover would eliminate movements across the NEC tracks to improve worker safety

Service Reliability
The new flyover would mitigate delays

Comfort
The new flyover could provide one seat rides into New York City

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Elimination of these movements would **substantially mitigate delays** and **increase train on-time performance**.*

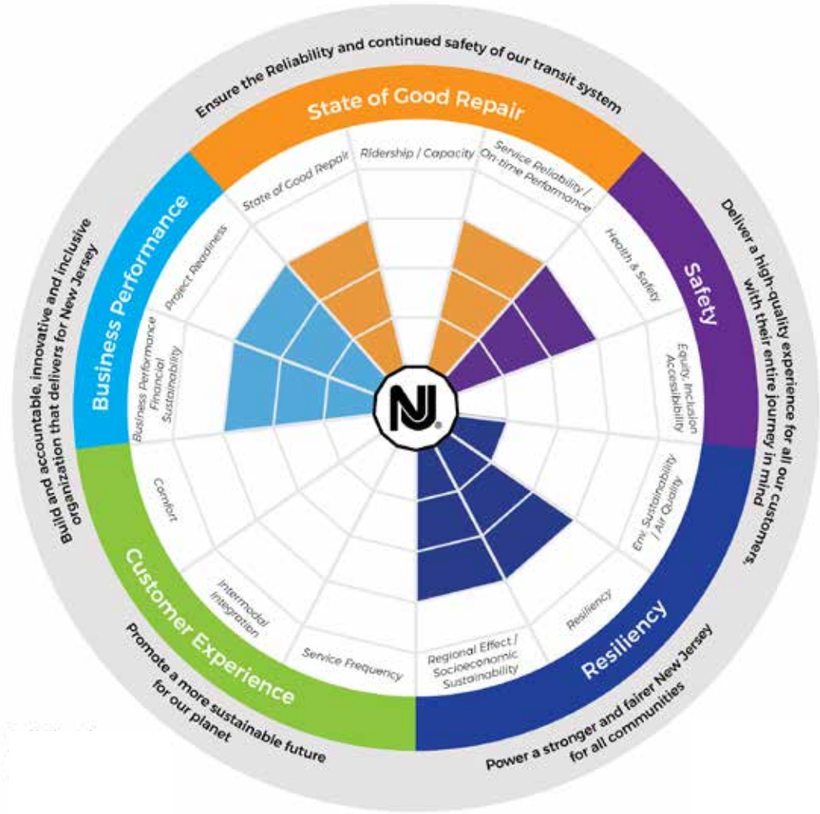
PROJECT SHEET | RAIL ELECTRIC TRACTION SUBSTATION ASSESSMENT

Description

NJ TRANSIT operates on seven rail lines, three of which use overhead catenary systems to power their locomotives: Morris & Essex, Montclair-Boonton, and the North Jersey Coast Line. The electric traction (ET) substations located in various sections along each electrified line are responsible for providing power to the catenary systems. The substations convert electric power supplied by power utility companies into a form that is usable by the catenary system. NJ TRANSIT is responsible for maintaining these substations and ensuring they remain in a state of good repair so that they can continue to provide reliable train service to their customers. A malfunctioning substation can result in loss of train power and massive delays.

In this project, NJ TRANSIT would seek to enter into an agreement with the Public Service Electric & Gas Company (PSE&G) to inspect and assess 16 of NJ TRANSIT's substations. The plan includes first having PSE&G inspect a single substation in order to develop an effective strategy for inspecting the remaining 15 substations. This would allow PSE&G to more efficiently and effectively assess each substation and provide NJ TRANSIT with the data to properly maintain its infrastructure. This project would ultimately improve rail reliability by ensuring its infrastructure remains in a consistent state of good repair.

EXISTING:
Mason Substation



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$9 Million

Value to Customers

- Reduces train delays from power disruptions associated with substation malfunctions

Value to State

- Increases service reliability and on-time performance
- Lowers operating cost, including unscheduled maintenance and overtime, allowing for more efficient use of public funds

PROJECT SHEET RAIL ELECTRIC TRACTION SUBSTATION ASSESSMENT

ESTIMATED TOTAL PROJECT COSTS

$9M

Service Reliability
More reliable substation performance would enable trains to run on a more consistent schedule

State of Good Repair
This program would ensure that rail substations are maintained well and serviced regularly

Resiliency
Regular monitoring and servicing of substations would ensure that trains are able to run reliably during all types of weather events

Regional Effect/Socioeconomic Sustainability
Rail lines across the system would benefit from this program

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*This project would more **effectively and efficiently assess each substation** and provide NJ TRANSIT with the data to **properly maintain the infrastructure**.*

PROJECT SHEET | NEW GRAW SIGNAL SUBSTATION

Description

The North Jersey Coast Line (NJCL) services approximately 22,800 NJ TRANSIT customers daily between Bay Head and New York Penn Station. The Aberdeen Substation, located just east of the Aberdeen-Matawan Station, is responsible for providing power to the track signal system between Aberdeen and Graw, which is the location where the NJCL enters the Northeast Corridor (NEC). A malfunction at the substation and/or with the signal system can result in an out-of-service condition for this corresponding stretch of track which spans approximately 14 miles. Given the lack of system redundancy at this location, there are increased susceptibility of service disruptions along this stretch of track.

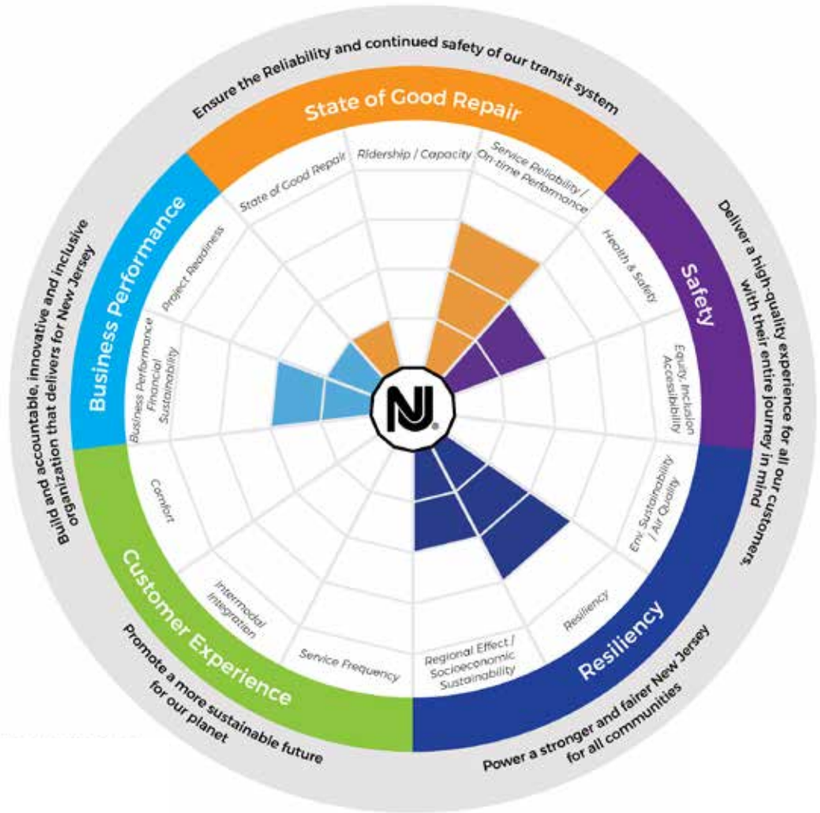
If funded, this project would construct a new signal substation at the Graw Interlocking where the NJCL enters the NEC. The proposed substation would provide signal power west towards Aberdeen to add redundancy and limit the stretch of track that relies on a single substation for signal power. This much needed redundancy to the signal system between Aberdeen and Graw would mitigate the risk of loss of track operations due to signal system or substation malfunction. Ultimately, this project would decrease operational delays and improve reliability along the NJCL.

EXISTING:
NJCL Entering NEC at Graw

PROPOSED:
Signal Substation

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$20 Million



Value to Customers

› Provides more reliable service

Value to State

› Lowers costs associated with recurring service outages, which allows for more efficient use of public funds

PROJECT SHEET NEW GRAW SIGNAL SUBSTATION

ESTIMATED TOTAL PROJECT COSTS

$20M

Business Performance/Financial Sustainability
Added redundancy to the signal system would reduce pressure and maintenance costs on the stretch of track that relies on a single substation

Service Reliability
Reduced risk of a track operations failure would increase service reliability

Regional Effect/Socioeconomic Sustainability
Limit the stretch of track that relies on a single substation for signal power

Resiliency
Add redundancy to the signal system to mitigate the risk of track operations failure due to a signal system or substation malfunction

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The substation would **provide signal power** west towards Aberdeen to **add redundancy** and limit the track that relies on a single substation for signal power.*

PROJECT SHEET | SUFFERN SUBSTATION AND CREW QUARTERS

Description

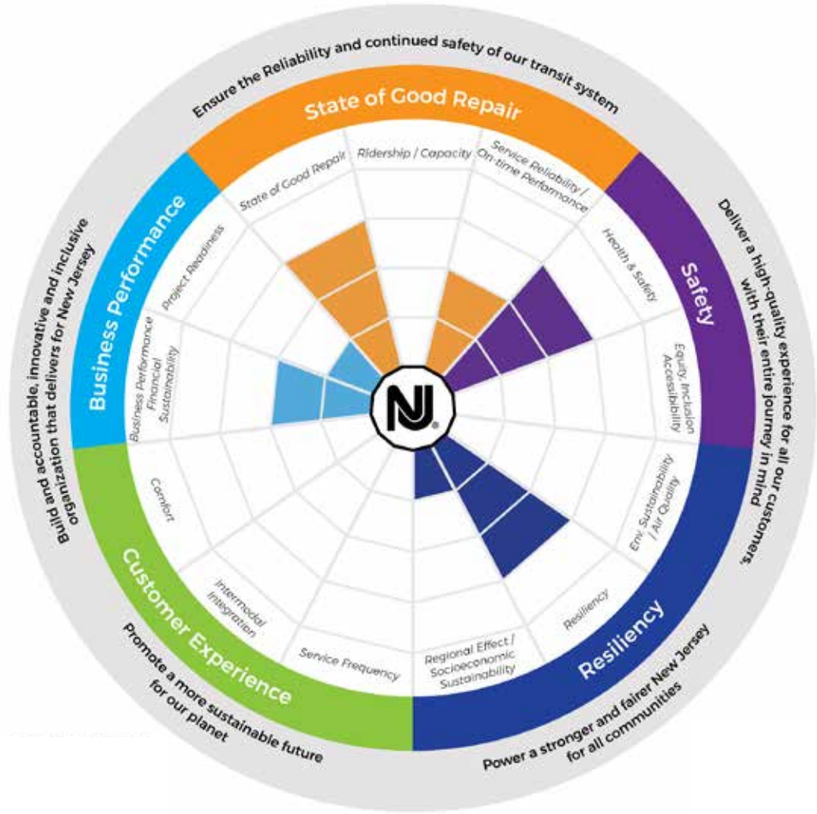
The Main-Bergen County Line services approximately 31,450 NJ Transit passengers a day between Suffern, NY and Hoboken, NJ. Just north of Suffern Station is the Suffern Substation, which is located underneath the access ramp for Interstate 87 and is part of Suffern Yard. This substation is responsible for providing power to trains parked in the yard, track switch heaters, brake air compressors and heaters, property lights, and the crew quarters. However, the existing substation has sustained considerable damage from ice and snow containing road salt being dropped on the switch gear. This condition is compromising the reliability of the equipment and the safety of NJ TRANSIT employees. In addition to switch gear damage, the current substation location is between a steep cliff and support pillars for the highway ramp, making it impossible to bring in any equipment to service the substation.

If funded, this project would replace the existing substation and move it north towards the existing Suffern Yard. This would put it in an area free of overheard roadways and support structures, which would prevent deterioration from snow, ice, and debris falling on the substation. This relocation would also improve access to the substation for maintenance crews and equipment. Additionally, the substation building would also function as a crew quarters for relevant NJ TRANSIT maintenance personnel. Ultimately, replacement and relocation of the Suffern Substation would mitigate substation maintenance concerns, improve worker safety, and increase service reliability.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$21 Million

PROPOSED:
New Substation



Value to Customers

- Provides more reliable service
- Increases equipment reliability

Value to State

- Lowers maintenance costs, which allows for more efficient use of public funds
- Reduces in potential injuries associated maintenance work under overhead roadway

PROJECT SHEET SUFFERN SUBSTATION AND CREW QUARTERS

ESTIMATED TOTAL PROJECT COSTS

$21M

Business Performance/Financial Sustainability
Placing the new substation in a safer location would decrease maintenance and operations costs

Service Reliability
The new substation would be more reliable and decrease delays affecting the rail line and equipment due to the old substation's unreliable power supply

Health/Safety
Relocating the substation away from the roadway would improve the safety of all personnel using the substation

State of Good Repair
Replacing the outdated substation and protecting the new substation from harmful weather would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Replacement and relocation of the substation would **mitigate substation maintenance concerns, improve worker safety, and increase service reliability**.*

PROJECT SHEET | WOOD TO STEEL POLE CONVERSION ON GLADSTONE BRANCH

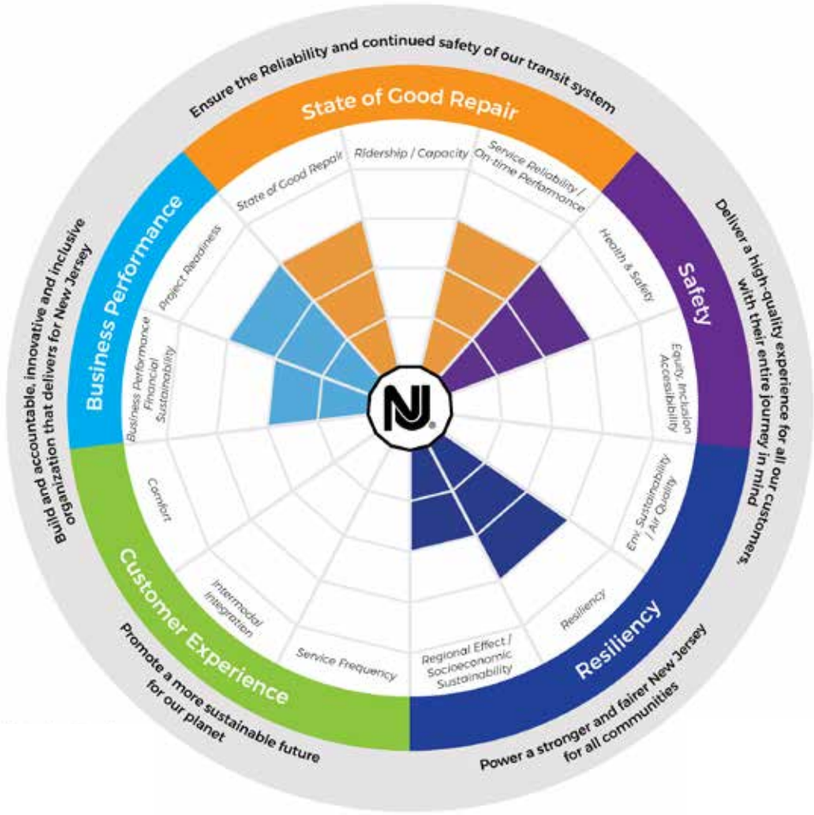
Description

The Gladstone Branch runs single track service between Gladstone and Summit and is an extension of the Morris and Essex (M&E) Line. Currently, there are wood poles along the Gladstone Branch right-of-way that support the catenary and signal lines for approximately 22 miles. These poles are frequently damaged during strong wind events and disrupt the track catenary and signal systems. Any disruption to service on this branch is felt throughout the entire line because it only runs a single track.

If funded, this project would replace the existing obsolete wood poles with stronger steel poles. The steel poles would withstand stronger winds and prevent widespread line outages during extreme events. Additionally, steel poles provide a much longer service life than wood, which would reduce maintenance expenses. Ultimately, replacement of the existing wood poles with stronger steel poles would allow the NJ TRANSIT to provide more reliable service to its customers along the Gladstone Branch while lowering costs.

EXISTING:
Wood Poles

PROPOSED:
Steel Poles



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$81 Million

Value to Customers

- Provides more reliable service
- Increases on-time performance

Value to State

- Lowers costs associated with maintaining existing wood poles, allowing for more efficient use of public funds
- Provides resilient infrastructure to prevent damage to signal and catenary systems during extreme wind events

PROJECT SHEET WOOD TO STEEL POLE CONVERSION ON GLADSTONE BRANCH

ESTIMATED TOTAL PROJECT COSTS

$81M

Resiliency
New steel poles would be able to withstand strong wind events

Health/Safety
Stronger steel poles would decrease the risk of poles falling during extreme wind events

Service Reliability
Replacing outdated wood poles with steel poles would reduce delays associated with downed poles

State of Good Repair
Replacing wood poles with steel poles that have a longer service life would improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Replacing obsolete wood poles with stronger steel poles would allow NJ TRANSIT to ***provide more reliable service to customers along the Gladstone Branch****.*

PROJECT SHEET | ELECTRIC TRACTION STORAGE FACILITY

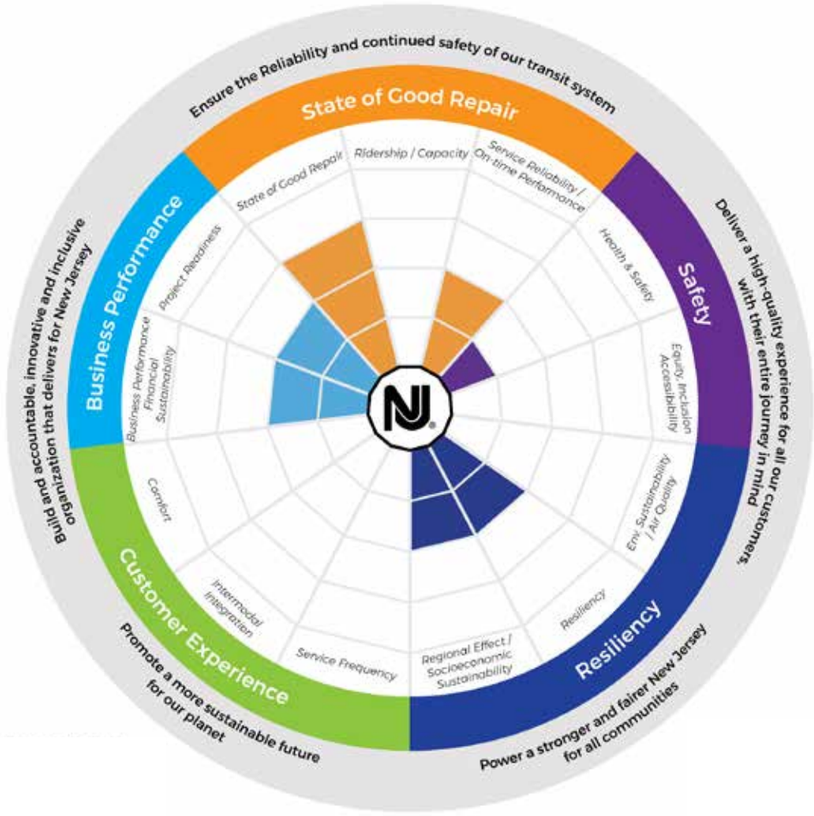
Description

NJ TRANSIT currently has no formal central inventory facility or system to manage electric traction (ET) components. Equipment is either stored outside along the rail right-of-way or in shipping containers placed wherever space is available throughout electrified railroad territory. A lack of a central storage facility makes it challenging for NJ TRANSIT to procure ET equipment in both adequate quantities and timely manner. Furthermore, ET inventory is exposed to the elements in ad-hoc storage units scattered throughout the system.

If funded, a centralized inventory control facility where materials could be securely stored and inventoried after procurement would allow for quick sourcing from an organized stock and speed up deployment in times of scheduled maintenance, as well as when there is equipment failure or an emergency. The facility would be expected to include up to 75,000 square feet of indoor warehouse storage and 90,000 square-feet of yard storage to house and protect approximately $40 million worth of inventory. Key facility features would include two operable cranes and large garage doors to simplify equipment movement within the site and to allow rapid load-out of service vehicles with replacement equipment to quickly restore service where or when failures may occur.

EXISTING: Example of Shipping Container Storage Site

PROPOSED: Warehouse Style Storage With Overhead Crane



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$26 Million**

**Estimate based upon concept design*

Value to Customers

- Increases on-time-performance, safety and service reliability
- Reduces service outages

Value to State

- Increases efficiency of ET maintenance operations
- Increases return on investment for use of equipment protected during storage
- Lowers operating costs

PROJECT SHEET ELECTRIC TRACTION STORAGE FACILITY

ESTIMATED TOTAL PROJECT COSTS

$26M

Business Performance/Financial Sustainability
A centralized inventory would allow for quicker emergency deployment and reduced warehouse operating costs

State of Good Repair
A modern storage facility would better equip the agency to implement repairs and improve service life

Regional Effect/Socioeconomic Sustainability
A centralized facility would allow for stockpiling of critical components for preventative maintenance; eliminating failures before they occur

Resiliency
New facility would allow for rapid recovery from extreme weather events or service emergencies

STRATEGIC GOALS MET

Promote a more sustainable future for our planet

Ensure the reliability and continued safety of our transit system

*Centralized inventory would allow **quick sourcing from organized stock** and **reduce down time** in emergencies and outages.*

PROJECT SHEET | NJ TRANSITGRID

Description

To provide a resilient energy supply for a targeted portion of rail infrastructure, NJ TRANSIT would construct a first-of-its-kind electrical microgrid to supply highly reliable power during storms or other times when the centralized power grid is compromised. NJ TRANSITGRID received a Record of Decision from the Federal Transit Administration in April 2020. NJ TRANSIT is considering ways to better incorporate renewable energy and storage as part of the project's continued development, in alignment with the State's Energy Master Plan.

NJ TRANSIT currently relies on a regional grid managed by Pennsylvania-New Jersey-Maryland Interconnection (PJM) to provide electricity for its traction power system. This creates a dependency on a single power supply and distribution system, which is vulnerable to power outages during extreme events. Vulnerability of the existing system was realized in 2012, when Superstorm Sandy caused widespread power outages that disrupted NJ TRANSIT service and operations for several days.

If funded, the proposed facility would operate 24/7 and be sized to handle limited operations on the Northeast Corridor between New York's Penn Station and NJ TRANSIT's Jersey Avenue Station in New Brunswick; the Morris & Essex line between Hoboken Terminal and Maplewood Station; and the Hudson-Bergen Light Rail (HBLR) Transit System. The project would also provide power to the signal system on a portion of the Main Line.

The NJ TRANSITGRID project involves constructing a microgrid central facility (MCF) and creating a distributed generation system. In addition to providing emergency backup power, these resources would allow NJ TRANSIT to participate in peak "shaving" practices, which would lower the cost of electricity provided by the regional grid. A nanogrid would be installed to provide emergency power for the HBLR.

NJ TRANSITGRID would maintain and enhance mobility and regional security during a power outage, minimize disruptions to the regional workforce and economy, enhance electric grid reliability by providing additional sources of efficient power, and minimize pollutants by utilizing clean energy technologies. As design is ongoing, a portion of the project would also incorporate distributed energy, renewable energy (solar panels and flywheels), and other technologies to provide power to key NJ TRANSIT stations, maintenance facilities, bus garages, and other buildings.

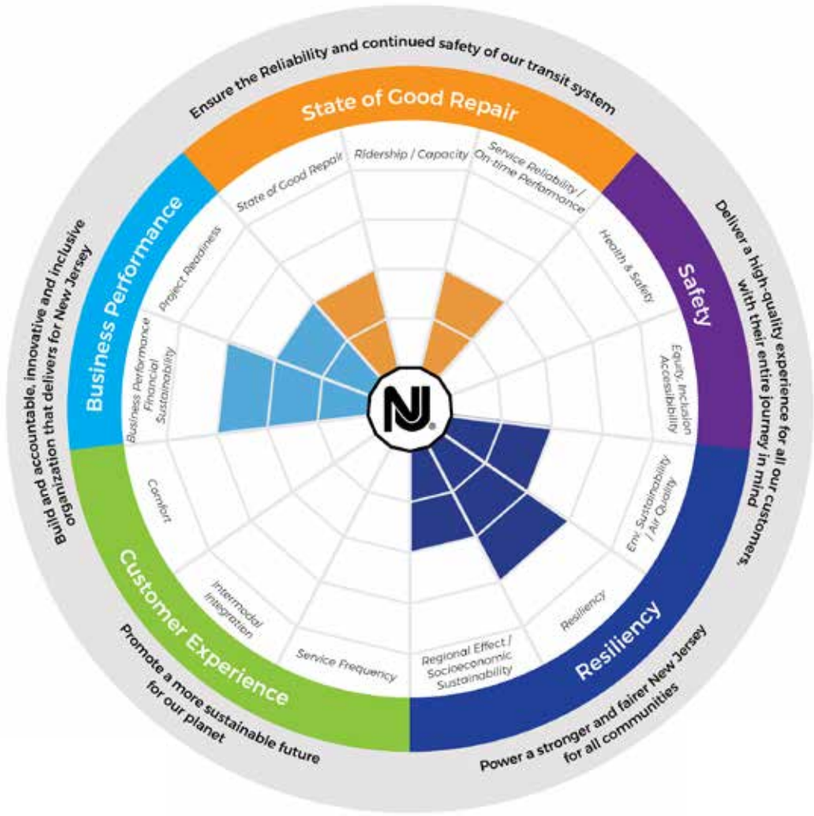
EXISTING: Decommissioned Coal-Powered Hudson Generating Station

PROPOSED:
Microgrid Central Facility (MCF)

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$577.4 Million**

** Year 1 includes funds already spent on design phase activities*



Value to Customers

- Reduces train delays following power outages
- Establishes more reliable service

Value to State

- Lowers operating cost by providing more efficient power distribution
- Minimizes revenue loss from service disruptions
- Generates revenue through sale of power to outside entities
- Reduces greenhouse gases
- Advances state alternative energy goals

PROJECT SHEET | NJ TRANSITGRID

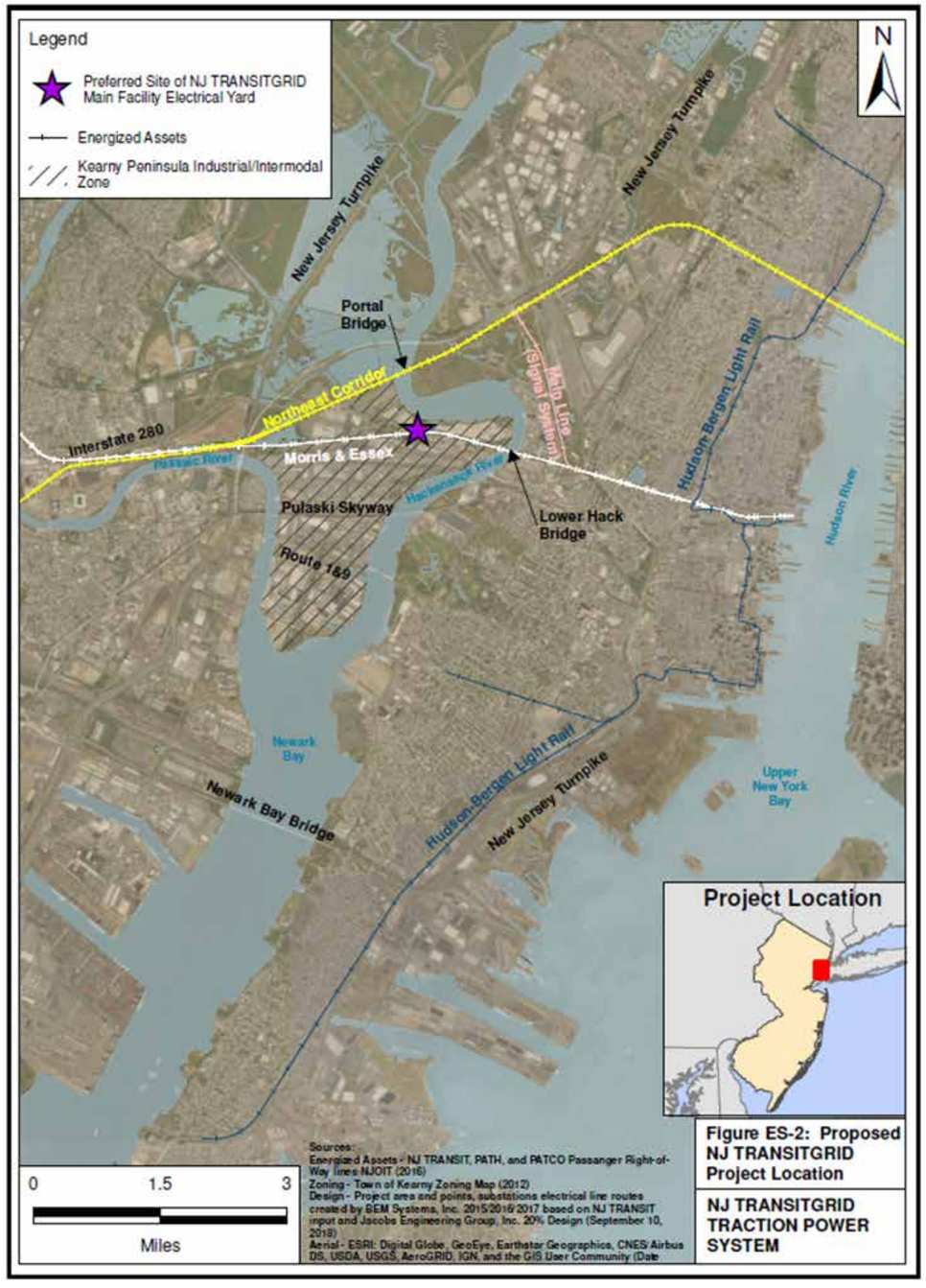


Figure ES-2: Proposed NJ TRANSITGRID Project Location

NJ TRANSITGRID TRACTION POWER SYSTEM

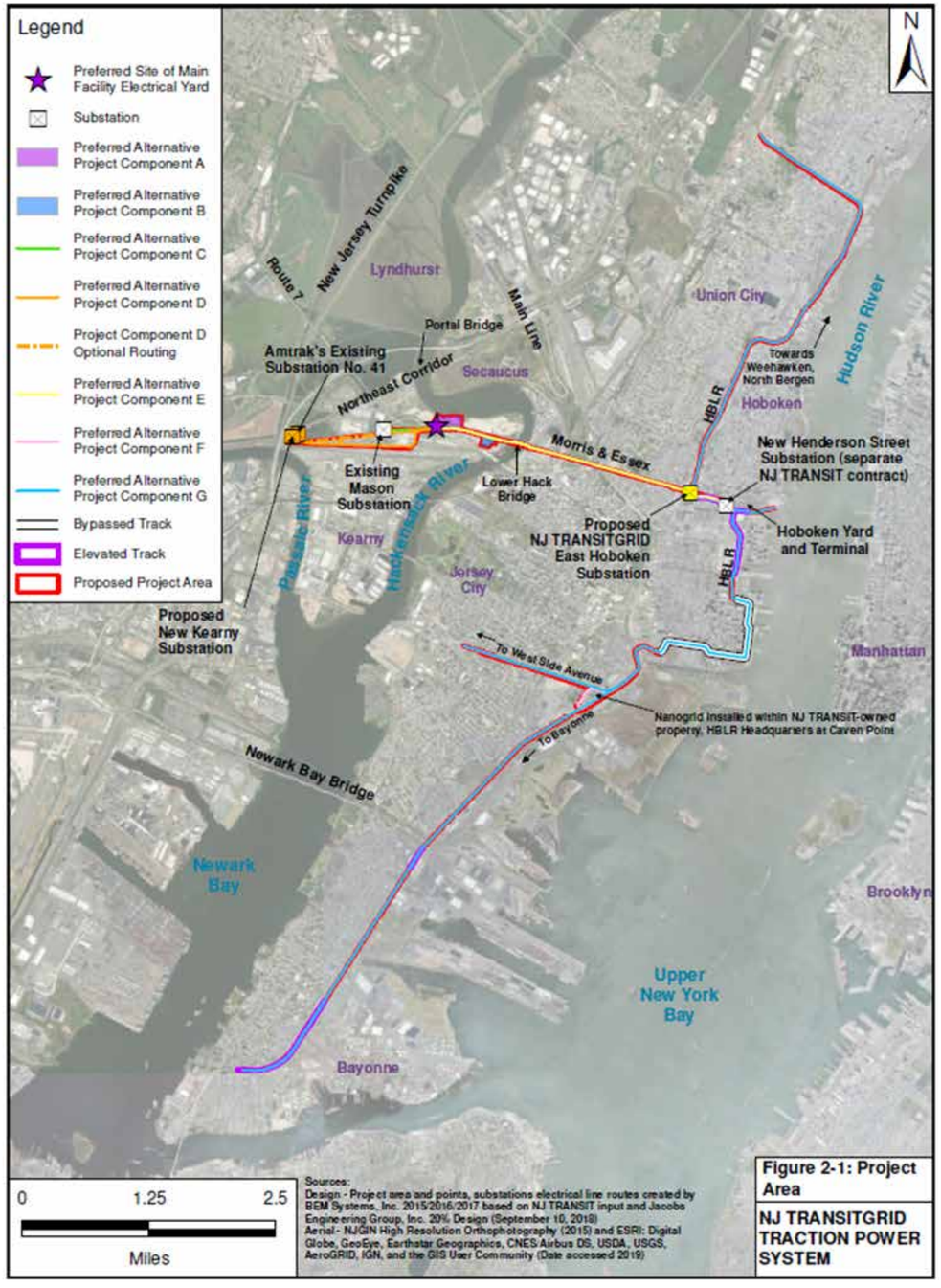


Figure 2-1: Project Area

NJ TRANSITGRID TRACTION POWER SYSTEM

PROJECT SHEET NJ TRANSITGRID

ESTIMATED TOTAL PROJECT COSTS

$577.4M

Business Performance/Financial Sustainability
NJ TRANSITGRID would provide efficient power and lessen service outages

Service Reliability
A backup power source would increase service reliability and eliminate long disruptions during extreme weather events

Resiliency
NJ TRANSITGRID would provide a backup power source during extreme weather events

Regional Effect/Socioeconomic Sustainability
Reliable backup power source would lessen disruptions and keep service running across the transit network during extreme weather events

STRATEGIC GOALS MET

Promote a more sustainable future for our planet

Ensure the reliability and continued safety of our transit system

NJ TRANSITGRID would ***enhance resilience*** *to and* ***preserve service during extreme weather events****.*

PROJECT SHEET | NEW SIGNAL CREW FACILITIES

Description

A railway's signaling system is a critical component in providing safe and reliable train service. NJ TRANSIT has staff dedicated to maintaining these signals and making sure they function properly at all times. To perform this function, NJ TRANSIT provides crew quarters for the maintenance crews at critical locations along all its rail lines. These crew quarters, however, often need repair or require full replacement. The existing crew quarters servicing the Essay Interlocking is being removed as a result of the Raritan River Bridge Replacement Project and will need to be replaced with a new facility. Additionally, the crew quarters located at Kingsland Station is in need of rehabilitation.

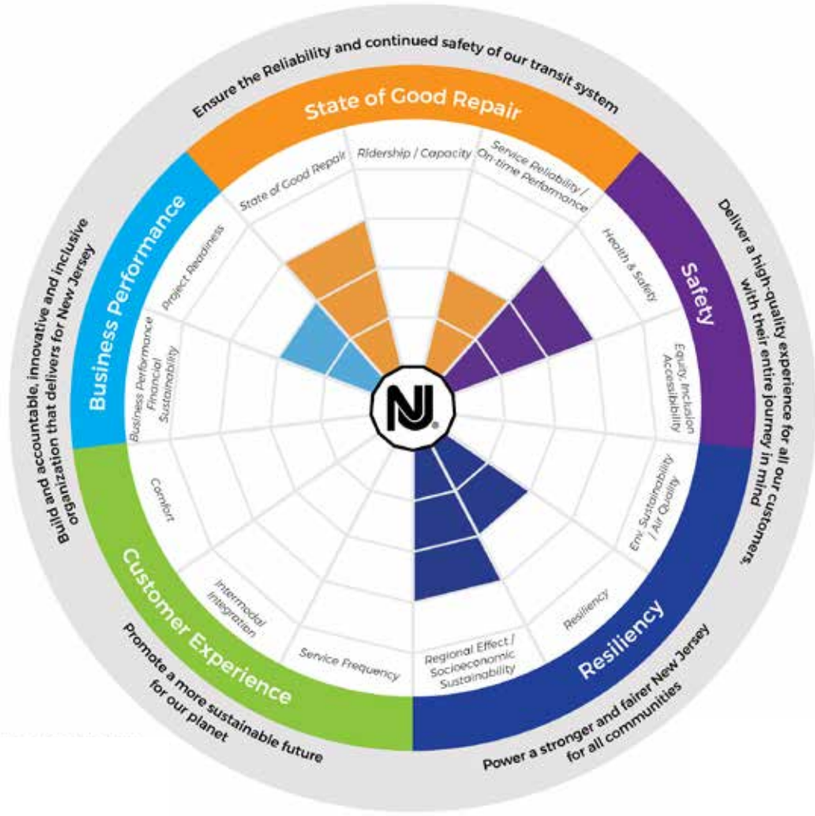
If funded, a new crew quarters would be constructed near the existing Essay Interlocking on the North Jersey Coast Line and the existing crew quarters at Kingsland Station will be rehabilitated. These upgraded facilities would provide adequate office and administration space for six personnel and would allow them to work more safely and efficiently. Basic amenities such as lockers and bathrooms would also be provided. The reconstruction of the crew facility at Essay would need to be coordinated with the Raritan River Bridge Replacement Project.

EXISTING:
Lyndhurst Signal Crew Quarters

PROPOSED:
Modular Office Building

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$11 Million



Value to Customers

› Provides new facilities for maintenance workers improving workforce efficiency

Value to State

› Reduces maintenance requirements for outdated facility

PROJECT SHEET NEW SIGNAL CREW FACILITIES

ESTIMATED TOTAL PROJECT COSTS

$11M

Health/Safety
The new facilities would improve employee safety and provide more protections against extreme weather events

Resiliency
The new facilities would be more resilient to extreme weather events

State of Good Repair
Outdated facilities would be replaced and rehabilitated

Regional Effect/Socioeconomic Sustainability
New signaling facilities would help ensure service across the entire rail network runs smoothly

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*A new signal headquarters would **benefit the rail network** and **improve state of good repair** and **safety**.*

PROJECT SHEET | AUXILIARY TRANSIT OPERATIONS FACILITY

Description

The Rail Operations Center (ROC) located in Kearny, NJ supports NJ TRANSIT's train and power dispatch operations and is its central command and control center for all train movements along its rail lines. Currently, there is no auxiliary facility to provide redundancy for operations, especially if the main facility is temporarily inaccessible or out of service. Additionally, as NJ TRANSIT continues to grow and more operations staff are needed, the current facility will not be able support the growing staff size.

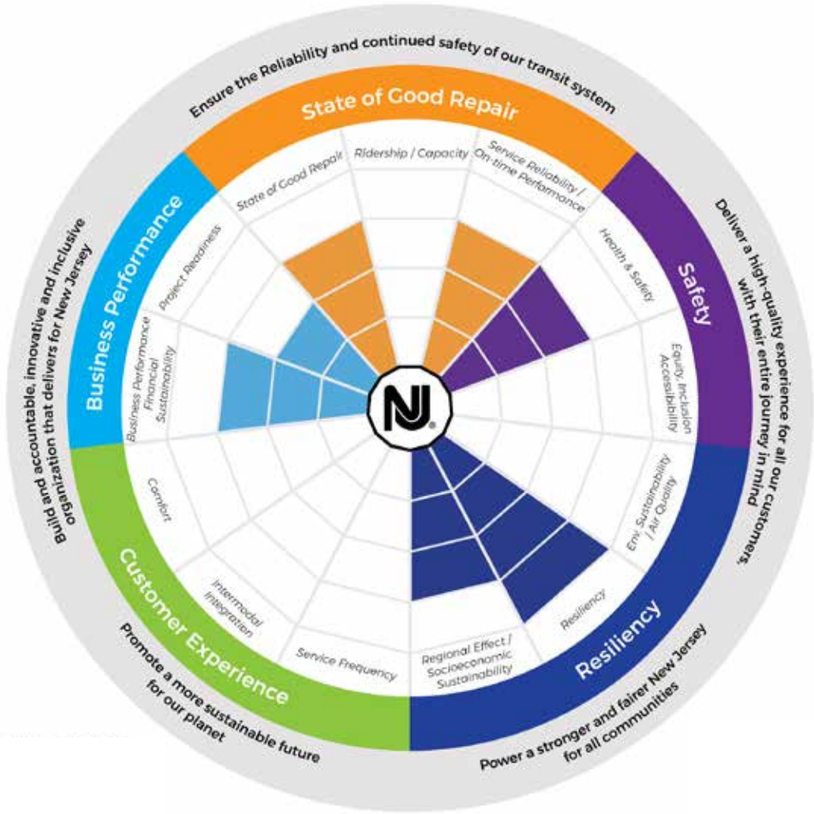
If funded, this project would construct a new rail operations dispatch center just south of Paterson Station on the Main Line. The new resilient facility would provide redundancy to train and power dispatch operations by providing a second operations center and provide additional space for NJ TRANSIT personnel. Additionally, the proposed facility would serve as the HQ for Access Link and act as the training center for all NJ TRANSIT disciplines, including a separate structure for catenary work and fall protection adjacent to the proposed dispatch center. An attached garage would be constructed to provide adequate parking for both employees and visitors. Furthermore, the building would include space to store a 90-day stockpile of personal protective equipment (PPE) that could be easily accessed and distributed in the event of an emergency.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$131 Million

EXISTING: NJ TRANSIT Lot

PROPOSED: New Facility



Value to Customers

- Reduces potential for service disruptions
- Provides more reliable service

Value to State

- Minimizes revenue loss from service disruptions

PROJECT SHEET AUXILIARY TRANSIT OPERATIONS FACILITY

ESTIMATED TOTAL PROJECT COSTS

$131M

Resiliency
The new facility would provide backup operations in case of an extreme weather event or emergency

Service Reliability
The new facility would improve service reliability and on-time performance

Regional Effect/Socioeconomic Sustainability
If an emergency event impacts the rail system, the network would have a backup command

State of Good Repair
Upgrading to a new facility would ensure operations of dispatch commands in emergency situations

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*A new facility would **provide resiliency and redundancy** for train and power dispatch operations by providing a **second operations center** and additional space for personnel.*

PROJECT SHEET | RED BANK CREW QUARTERS REPLACEMENT

Description

The Red Bank Yard, located just south of Red Bank Station, uses temporary trailers to support administration offices for the supervisory staff at Red Bank. These trailers are small, outdated, and do not provide the appropriate space or functionality needed for supervisors to perform their daily tasks. Furthermore, there is inadequate parking space for personnel.

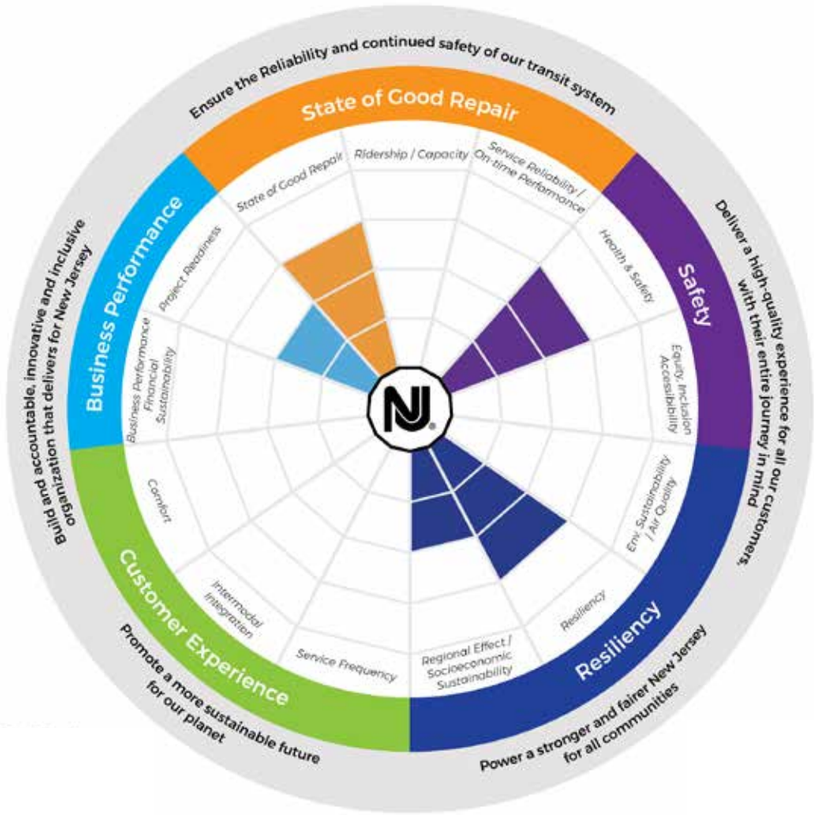
If funded, this project would construct a new crew quarters at the Red Bank yard on the existing NJ TRANSIT right of way. The facility would be built to provide adequate office and administration space for 30 personnel and allow them to work more safely and efficiently. Additionally, a new parking lot would be built to support the additional staff.

EXISTING:
Red Bank Crew Quarters

PROPOSED:
Modular Office Building

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$7 Million



Value to Customers

› Provides more reliable service

Value to State

› Reduces maintenance requirement for obsolete facility

PROJECT SHEET RED BANK CREW QUARTERS REPLACEMENT

ESTIMATED TOTAL PROJECT COSTS

$7M

Resiliency
The new facility would be more resilient to extreme weather events

State of Good Repair
The current crew quarters is obsolete and would be replaced with a new and more reliable facility

Health/Safety
Constructing a new facility would improve employee safety and provide more protections against extreme weather events

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*New crew quarters would **improve employee safety** and **efficiency**.*

PROJECT SHEET | NORTHERN MOW FACILITY

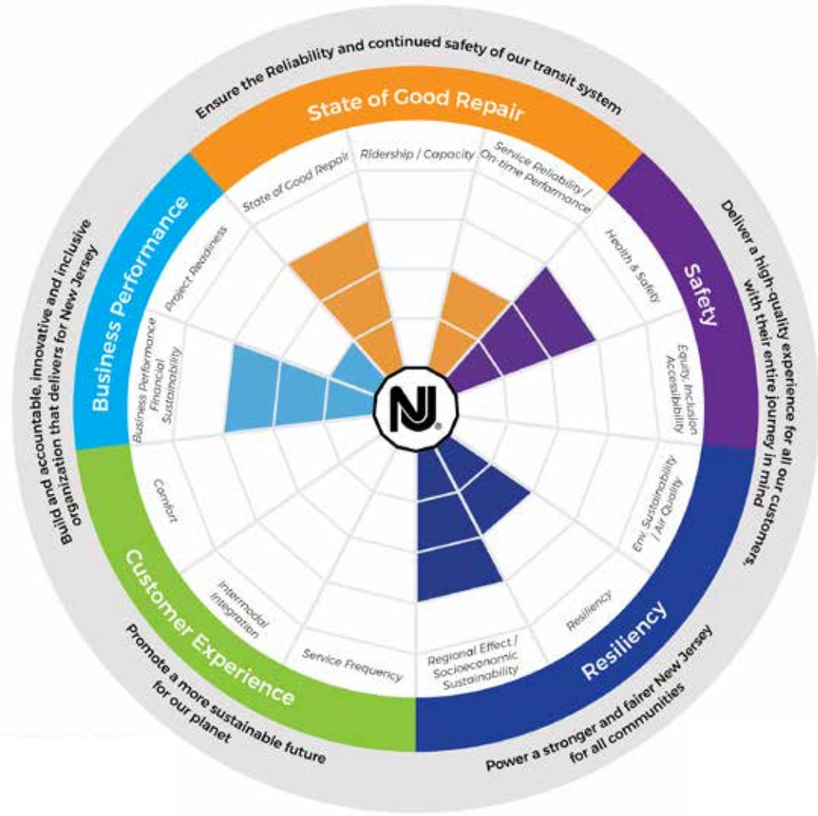
Description

The Wood-Ridge Maintenance-of-Way (MOW) Facility in Wood Ridge, NJ is located along the Bergen County Line just north of NJ TRANSIT's Westmont Station. This facility is used to house the equipment and personnel responsible for maintaining the railroad, which includes the tracks and signal systems. However, the existing facility will soon be unable to support the equipment and staff necessary to keep up with growing maintenance needs. This is a critical issue because maintaining the railway is paramount in providing reliable service to customers.

If funded, this project would construct a new MOW facility in Clifton, NJ along NJ TRANSIT's Main Line. The new site would be large enough to support additional MOW equipment, as well as provide adequate administrative space for the growing staff. Additionally, more space would be provided for parking and storing MOW equipment. Replacing the existing obsolete MOW facility with a larger, more modern MOW facility would allow NJ TRANSIT to better address the maintenance needs of the railway and provide a more consistent and reliable service to customers.

EXISTING:
Wood-Ridge MOW Facility

PROPOSED:
New Facility Location



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$40 Million

Value to Customers

- Increases on-timer performance and service reliability
- Reduces service outages

Value to State

- Minimizes revenue loss from service disruptions

PROJECT SHEET NORTHERN MOW FACILITY

ESTIMATED TOTAL PROJECT COSTS

$40M

Regional Effect/Socioeconomic Sustainability
The new facility would improve equipment storage and space for administrative operations along the Main Line

State of Good Repair
Upgrading to a larger facility equipped with additional storage space would improve state of good repair

Service Reliability
The new facility would decrease service delays due to maintenance issues and increase reliability

Business Performance/Financial Sustainability
Less frequent service disruptions due to improved maintenance would reduce operations and maintenance costs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*A new larger facility would allow NJ TRANSIT to **better address the maintenance needs** of the railway and **provide more reliable service to customers**.*

PROJECT SHEET | BERGEN TUNNEL SOUTH TUBE REHABILITATION

Description

The Bergen Tunnels are two parallel tubes that carry four railroad tracks under Jersey City connecting NJ TRANSIT multiple rail branches to Hoboken Terminal. These tunnels are essential infrastructure that provide a vital, necessary link in the NJ TRANSIT network. Given the age of the structures, they must be carefully maintained to ensure they remain operational and in a state of good repair. In 2001, the north tube was rehabilitated to extend its overall service life, however, due to funding issues, work was not completed on the south tube. Currently, the south tube suffers from severe water leakage that forms large icicles during winter months, requiring daily maintenance crews to remove them from the ceiling. The tunnels also lack adequate lighting and life safety systems such as extinguishers, emergency phones and sprinkler systems. Given the age of the structures coupled with the excessive leakage, the track and track beds frequently deteriorate and require increased maintenance.

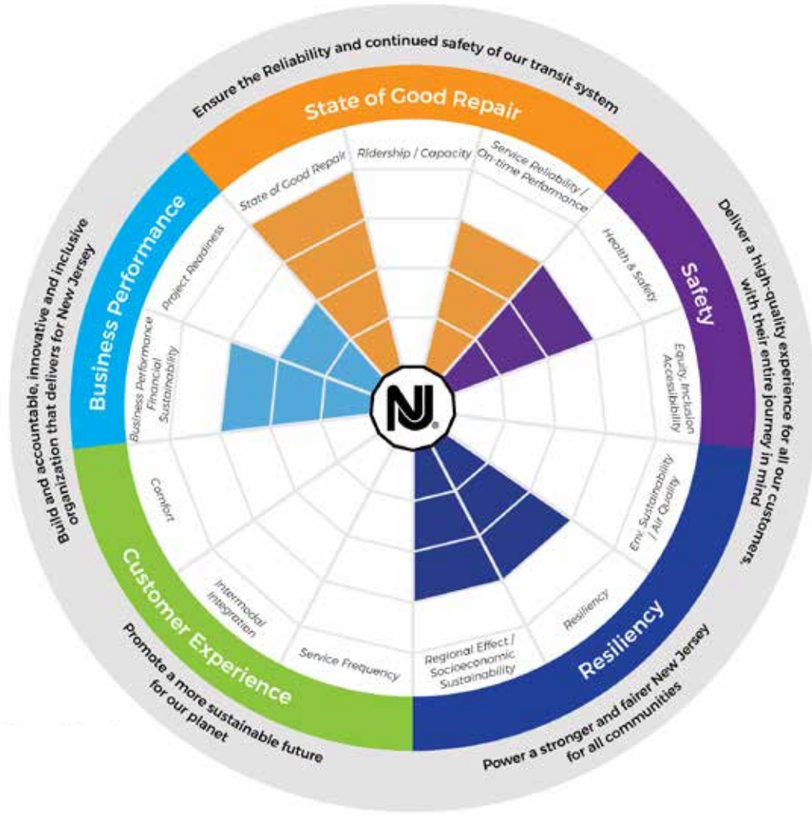
If funded, this project would rehabilitate the Bergen Tunnels South Tube, bring the remaining tunnel infrastructure to a state of good repair, providing safety enhancements with the introduction of additional safety systems required by the NJ TRANSIT Tunnel Safety Committee. It would feature new sealing and waterproofing to mitigate leakage, which would prevent ice from forming while improving the tunnel's durability. These efforts would ultimately increase the tunnel's service life while drastically reducing maintenance costs associated with daily ice removals, as well as frequent track bed repairs. Furthermore, enhanced safety systems and lighting would improve overall safety for those who use the tunnels, including NJ TRANSIT personnel.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$155 Million

EXISTING:
Bergen Tunnels

PROPOSED:
Rehabilitation



Value to Customers

- Increases on-time performance, safety and service reliability
- Reduces train delays associated with tunnel maintenance

Value to State

- Lowers operating cost, including unscheduled maintenance and overtime, which allows for more efficient use of public funds

PROJECT SHEET BERGEN TUNNEL SOUTH TUBE REHABILITATION

ESTIMATED TOTAL PROJECT COSTS

$155M

Resiliency
Rehabilitation features waterproofing and new sealing to mitigate leaks and improve durability

Business Performance/Financial Sustainability
Reduce maintenance costs associated with ice removals and track bed repairs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

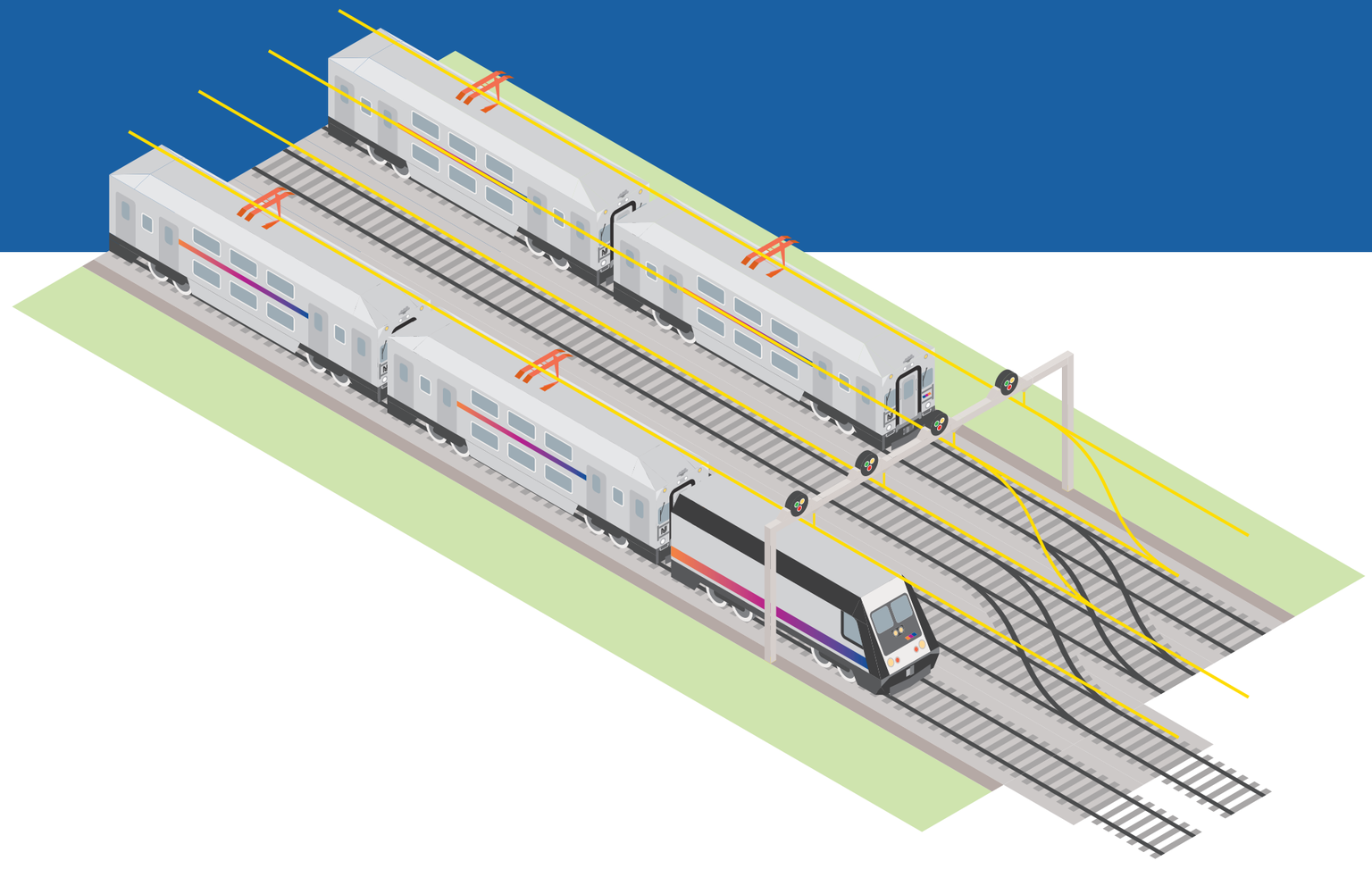
Ensure the reliability and continued safety of our transit system

State of Good Repair
Increase tunnel's service life and bring the remaining tunnel infrastructure to a state of good repair

Health/Safety
Enhanced lighting and safety systems required by the NJ TRANSIT Tunnel Safety Committee

Rehabilitating the Bergen Tunnels South Tube, would ***bring the remaining tunnel infrastructure to a state of good repair and provide safety enhancements***.

Rail Expansion



PROJECT SHEET | LACKAWANNA CUTOFF

Description

Lackawanna Cutoff is a disused rail right-of-way that stretches from Port Morris in Roxbury, NJ to Scranton, PA. Passenger service along Lackawanna Cutoff was discontinued in the 1960s, prior to the incorporation of NJ TRANSIT. Under this project, improvements will be made along the seven miles westward beyond Port Morris Junction (west of Lake Hopatcong Station) to connect to Andover, NJ, which would allow trains to operate through to New York Penn Station and Hoboken Terminal. In July 2006, the final environmental review for this project was submitted to the Federal Transit Administration for review and approval.

Significant infrastructure components, such as the 1,000-foot long Roseville Tunnel and track work to prepare for the addition of Andover Station are covered under the project's current funding and are currently in progress. Necessary trackwork around Port Morris is also included in this initial $62 Million contract.

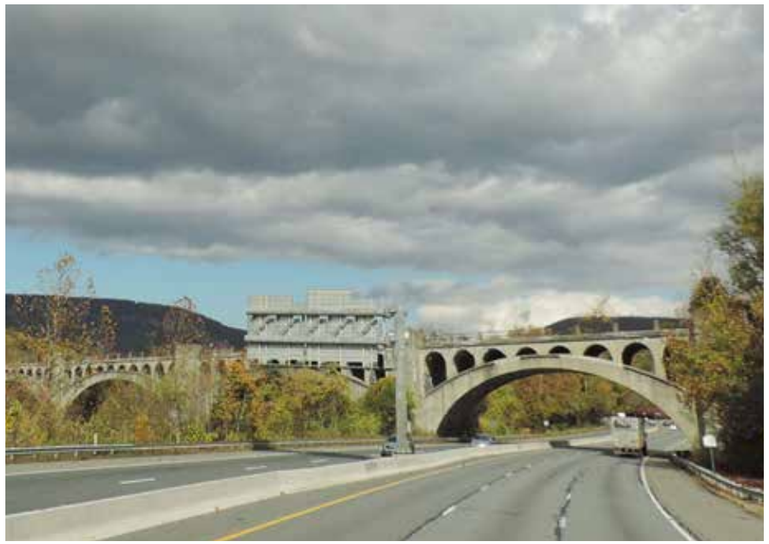
The extension to Scranton is uncommitted at this time. Studies to examine the feasibility of an extension from Andover to Scranton have been conducted, and in 2009 the environmental assessment was completed with a "Finding of No Significant Impact" (FONSI). A study completed in March 2020, analyzed project capital costs for this extension and was sponsored by the Pennsylvania Northeast Regional Rail Authority, which was created to help expedite efforts to restore passenger service on the Pennsylvania side of the project area.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

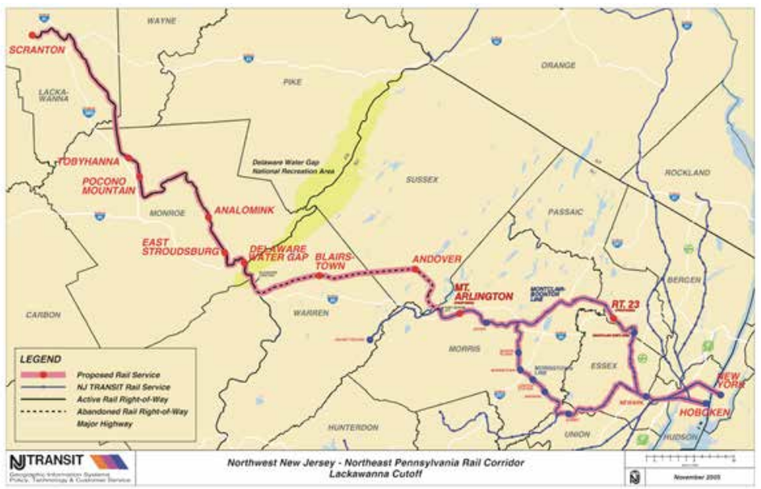
***$200 Million**

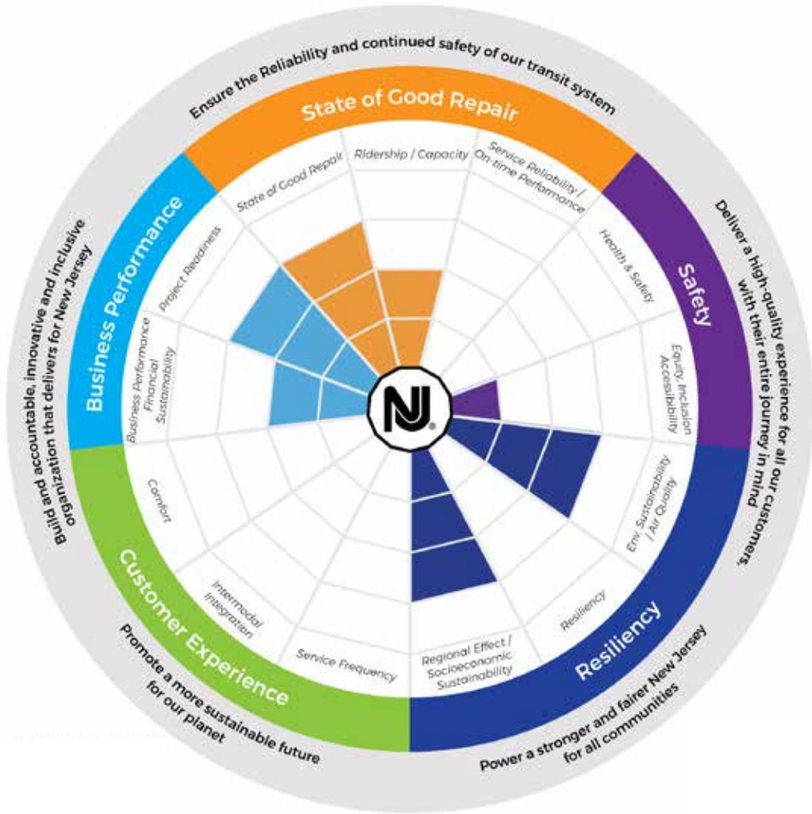
**($62 Million currently funded for initial track work and stabilization of rail infrastructure)*

EXISTING: Delaware River Arch Viaduct of Lackawanna Cutoff Line



PROPOSED: Map of Proposed Lackawanna Cutoff Service





Value to Customers

- Provides additional travel option for travelers trying to avoid highway congestion in the region
- Improves convenience and travel time to customers in Sussex and Warren counties and NJ TRANSIT regional rail via Hoboken Terminal

Value to State

- Attracts riders to transit by providing direct access to commuter rail system for passengers within Sussex and Warren Counties
- Provides transportation capacity to support population and employment growth in the region

PROJECT SHEET LACKAWANNA CUTOFF

ESTIMATED TOTAL PROJECT COSTS

$200M

Ridership/Capacity
Expanding passenger service would increase the customer base and provide more options to existing customers

Regional Effect/Socioeconomic Sustainability
Expanding the transit network and adding connections to New York Penn Station and Hoboken Terminal would provide better transit connectivity to key destinations

Environmental Sustainability/Air Quality
An expanded transit network would reduce vehicle emissions and provide a more efficient, sustainable transportation option

State of Good Repair
Trackwork and other infrastructure upgrades would improve state of good repair along rail right-of-way

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

Linking Port Morris Junction with Andover *would allow trains to* ***operate to New York Penn Station and Hoboken Terminal****.*

PROJECT SHEET | THIRD TRACK BETWEEN WALDWICK AND SUFFERN

Description

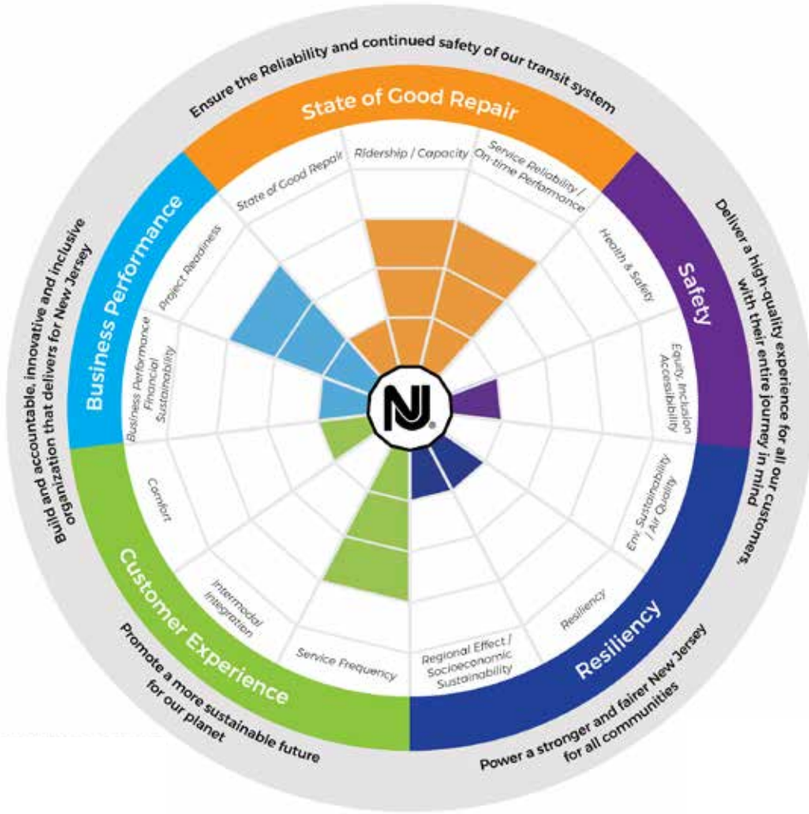
The NJ TRANSIT Main Line services an average of 31,450 passengers per day between Suffern, NY and Hoboken Terminal, and is one of the most heavily used NJ TRANSIT rail lines. Working east to west from Hoboken, the two-track Main Line and two-track Bergen County Line merge into three tracks at Ridgewood Junction. The line then operates on three tracks from Ridgewood to Waldwick but reduces to two tracks from Waldwick to Suffern. This two track section west of Waldwick limits the Main Line's capacity and prevents express trains from passing through occupied stations.

If funded, this project would continue the third track (Track 3) west from Waldwick to Suffern to provide additional capacity along the Main Line. Extension of Track 3 would require widening of multiple existing bridges, increased vertical clearance for the bridge over Route 202, the closing of various grade crossings, and the construction of new bridges over four existing highways. Additionally, all five existing stations along the limits of the proposed third track would require modifications, which include new, accessible high-level platforms and pedestrian tunnels to accommodate the additional track. The existing interlocking at Suffern and Waldwick would also be upgraded to allow trains to efficiently switch between the three tracks. Ultimately, this project would provide the capacity enhancement necessary to keep pace with ridership growth and provide a more reliable experience for Main Line and Bergen County Line customers. This work would be coordinated with the proposed WC Interlocking project, which will extend Track 3 into Waldwick Yard.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$619 Million

EXISTING:
Track Configuration



Value to Customers

- Reduces train delays from train conflicts and increase on-time performance
- Decreases scheduled train time

Value to State

- Increases on-time performance, safety, and service reliability
- Increases lines capacity and revenue

PROJECT SHEET THIRD TRACK BETWEEN WALDWICK AND SUFFERN

ESTIMATED TOTAL PROJECT COSTS

$619M

Service Quality/Frequency
Addition of a third track would improve overall Main Line service

Service Reliability
Addition of a third track would enhance service capacity and reliability

Ridership/Capacity
A third track would support ridership growth by enhancing capacity for service

Project Readiness
This project could begun quickly

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

A third track would provide ***capacity enhancements necessary to keep pace with ridership growth*** *with more reliable service.*

PROJECT SHEET | LEHIGH THIRD AND FOURTH TRACKS

Description

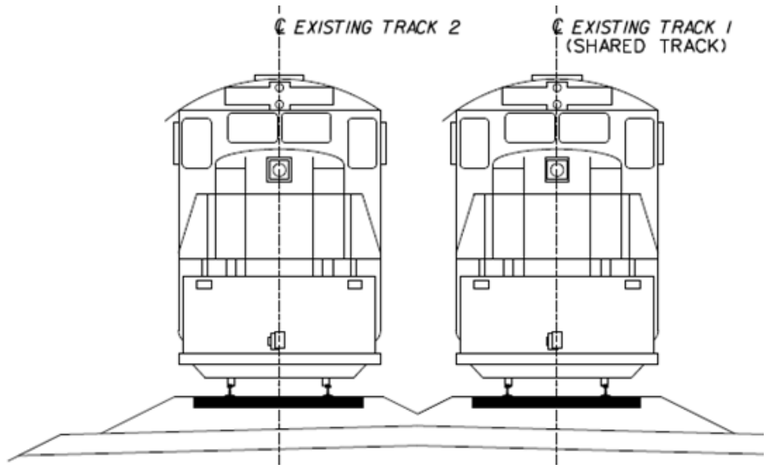
The Raritan Valley Line (RVL) connects High Bridge with Newark Penn Station to facilitate commutes to and from NYC. At the Aldene interlocking east of Cranford Station, the RVL merges with the Lehigh Valley Line, which is also used by Conrail. This line carries two tracks that continue to Newark Interlocking just before the RVL enters the NEC. However, these two tracks are shared by both NJ TRANSIT passenger trains and Conrail freight trains, which limits the capacity of the RVL and presents logistical issues because freight and passenger trains can occupy both tracks at any time.

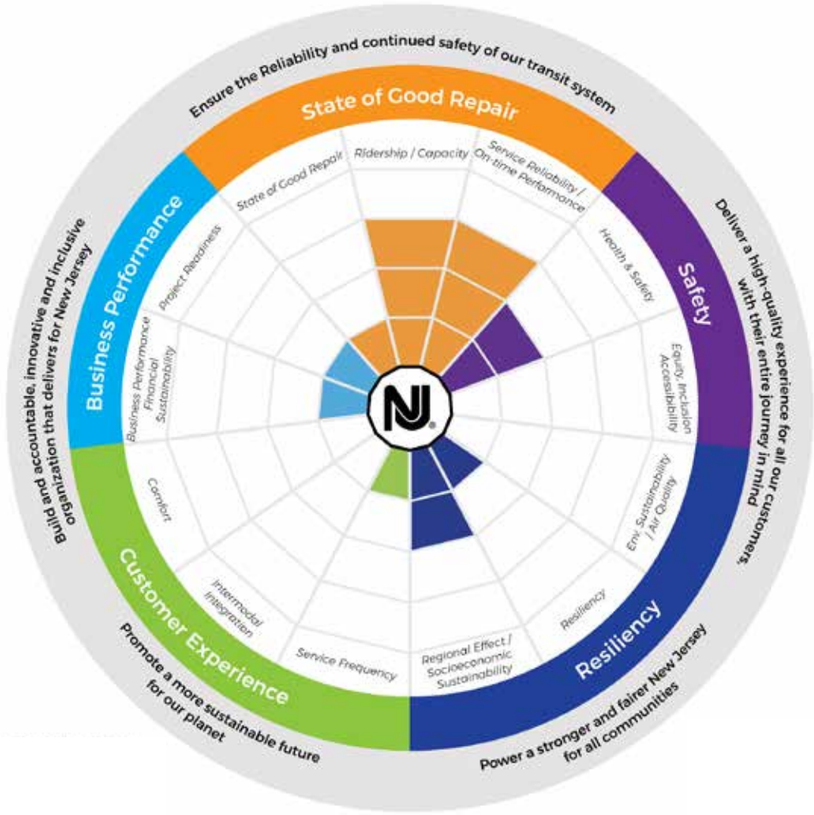
If funded, this project would add two additional tracks to the Lehigh Line between the Aldene and Newark Interlockings: a proposed Track 3 would be constructed north of existing Track 1, and a proposed Track 4 would be constructed south of existing Track 2 (ideally for freight). Track 1 and 2 would be the NJ TRANSIT tracks to use existing station platforms and avoid increased freight clearance limitations to platform edges and prevent any interferences between the two train entities. Additionally, platforms would be needed at Roselle Park Station and Union Station to accommodate the additional Track 3. Ultimately, providing additional tracks along the Lehigh Line would increase the capacity of the RVL and reduce scheduled commute times by mitigating the need to coordinate passenger trains with Conrail freight trains.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$752 Million

EXISTING: Track Configuration





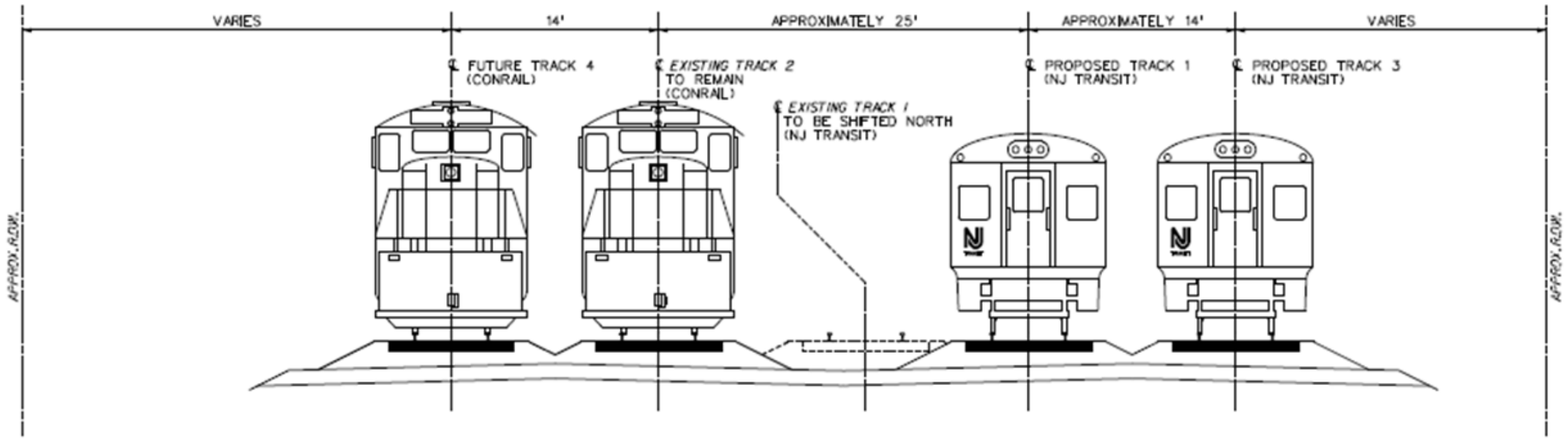
Value to Customers

- Decrease in scheduled train times
- Provides more reliable service and increases on-time performance

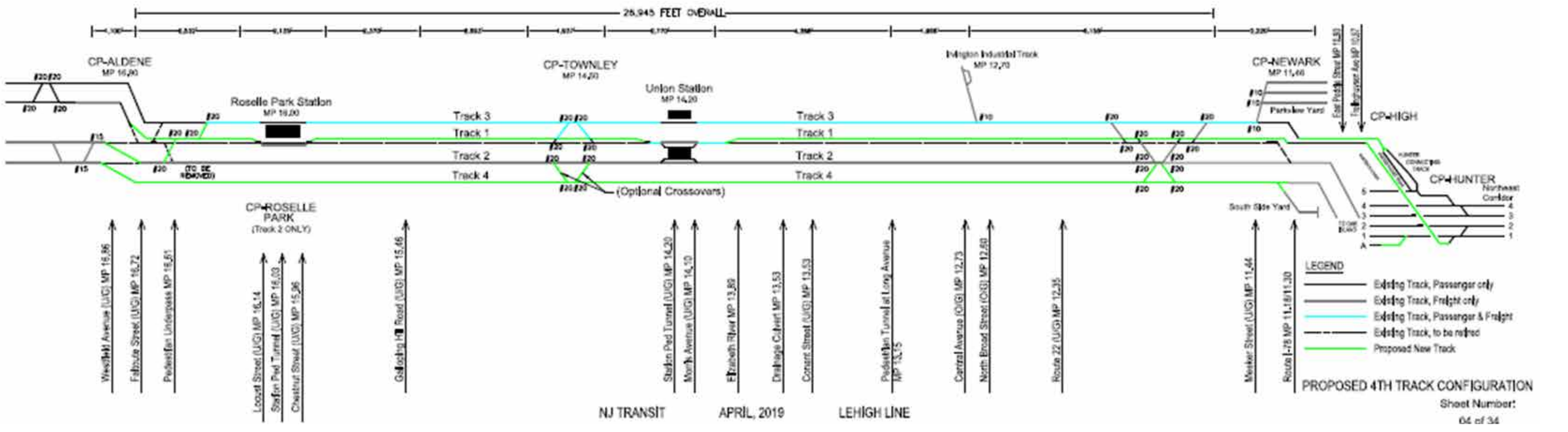
Value to State

- Increases in RVL capacity

PROJECT SHEET | LEHIGH THIRD AND FOURTH TRACKS



TYPICAL – FUTURE FOUR TRACK SECTION (LOOKING WEST)



PROJECT SHEET LEHIGH THIRD AND FOURTH TRACKS

ESTIMATED TOTAL PROJECT COSTS

$752M

Health/Safety
Constructing two new tracks would avoid increased freight clearance limitations to platform edges

Regional Effect/Socioeconomic Sustainability
Adding two new tracks would positively impact Raritan Valley Line service by eliminating conflicts with freight trains and ease commutes to/from NYC along the NEC

Ridership/Capacity
Adding two new tracks would increase capacity on the Raritan Valley Line

Service Reliability
The new tracks would limit conflicts with freight and reduce delays and scheduled travel times

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Providing additional tracks would **increase capacity of the Raritan Valley Line** as well as **reduce delays and travel times**.*

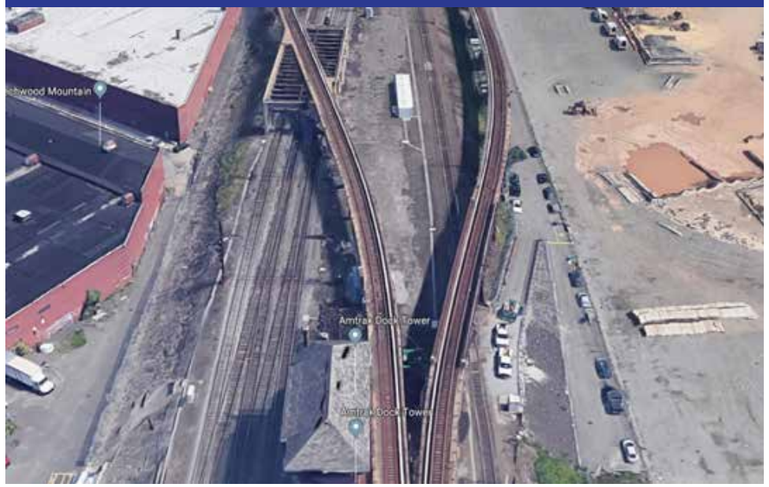
PROJECT SHEET | WESTBOUND WATERFRONT CONNECTOR

Description

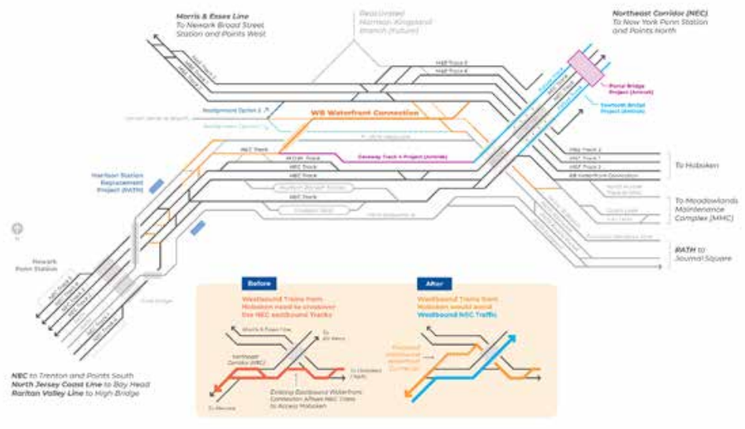
The Eastbound Waterfront Connector (EWC), built in 1991, is a single track that links Newark Penn Station with Hoboken Terminal. This track is used to carry trains both eastbound toward Hoboken and westbound toward Newark Penn Station, and is primarily used by NJCL trains that travel between Hoboken and Bay Head. However, the trains traveling westbound must make an at-grade crossing over two NEC tracks at the Dock Interlocking to enter Newark Penn Station on the appropriate westbound track. This complex movement creates conflicts with NEC trains traveling to and from New York and often results in delays for NJCL trains as they wait for an open slot to enter the corridor.

If funded, the proposed Westbound Waterfront Connector would overcome this challenge. A flyover track would be constructed across PATH Track G and the Center Street Industrial Track (CSIT) to connect the M&E Line Track 2 with Amtrak's NEC Track 4. This would allow westbound NJCL trains to enter the NEC Track 4 without having to cross at-grade between NEC tracks 2 and 3 at the Dock Interlocking. Eliminating this at-grade movement would not only mitigate delays on the NJCL, but it would also increase the capacity of the NJCL, RVL, and NEC.

EXISTING:
Dock Interlocking

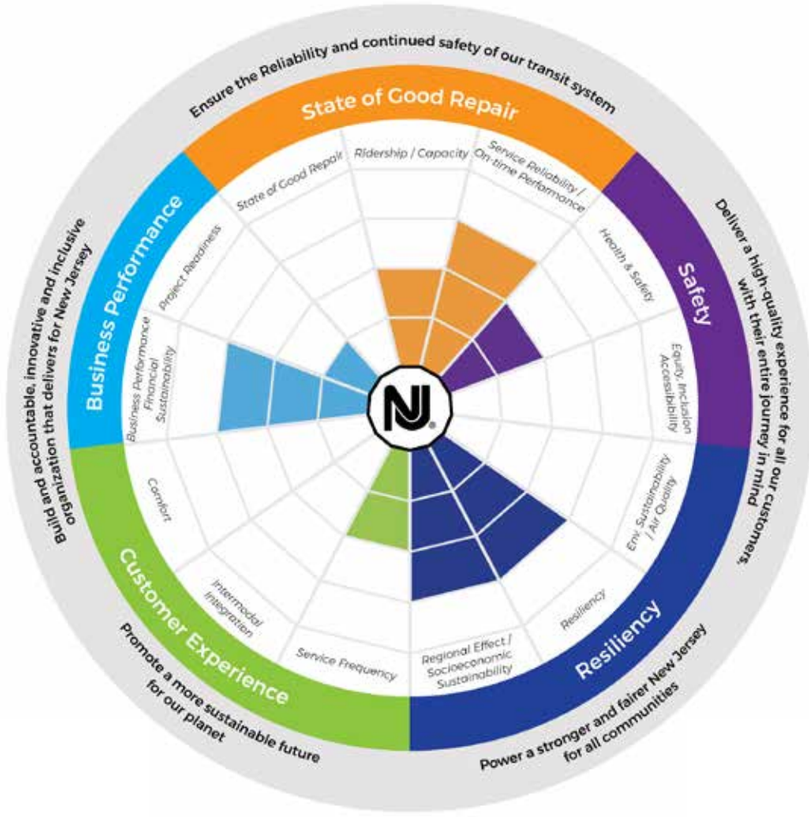


PROPOSED:
WB Waterfront Connection



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$474 Million



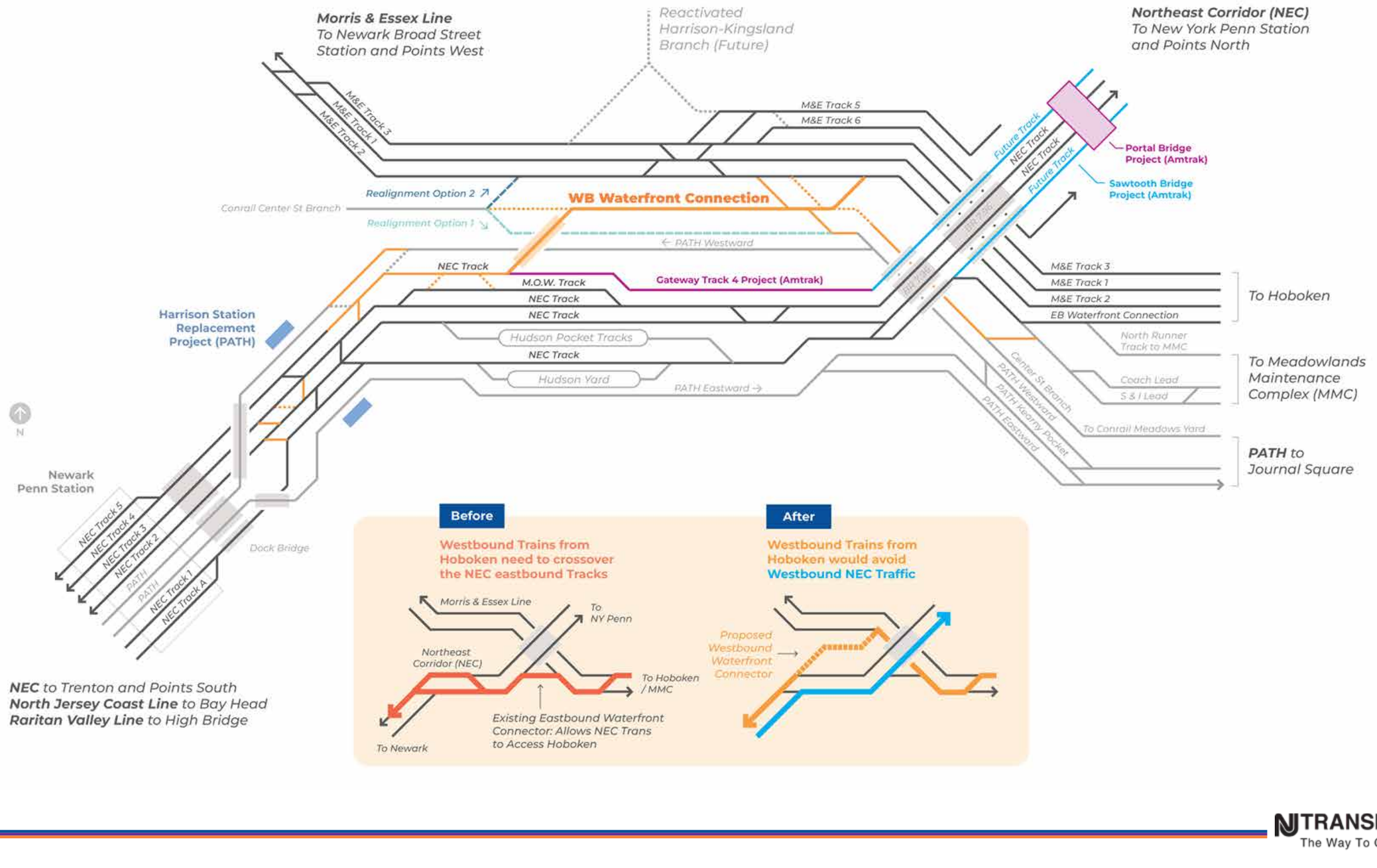
Value to Customers

- Reduces train delays
- Provides more reliable service and increased on-time performance

Value to State

- Minimizes revenue loss from service disruptions
- Increases revenue service

PROJECT SHEET | WESTBOUND WATERFRONT CONNECTOR



PROJECT SHEET WESTBOUND WATERFRONT CONNECTOR

ESTIMATED TOTAL PROJECT COSTS

$474M

Business Performance/Financial Sustainability
Fewer service disruptions and delays would increase revenue service on three different rail lines

Service Reliability
The flyover track would enable trains to operate with less delays and better on-time performance

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Health & Safety
Streamlining train movements will reduce risk of train conflicts creating a safer environment for employees

Regional Effect/Socioeconomic Sustainability
Adding a flyover track would reduce regional delays between Newark Penn Station and Hoboken

*Eliminating the at-grade movement **would mitigate delays and increase capacity**.*

Regional Transit Projects

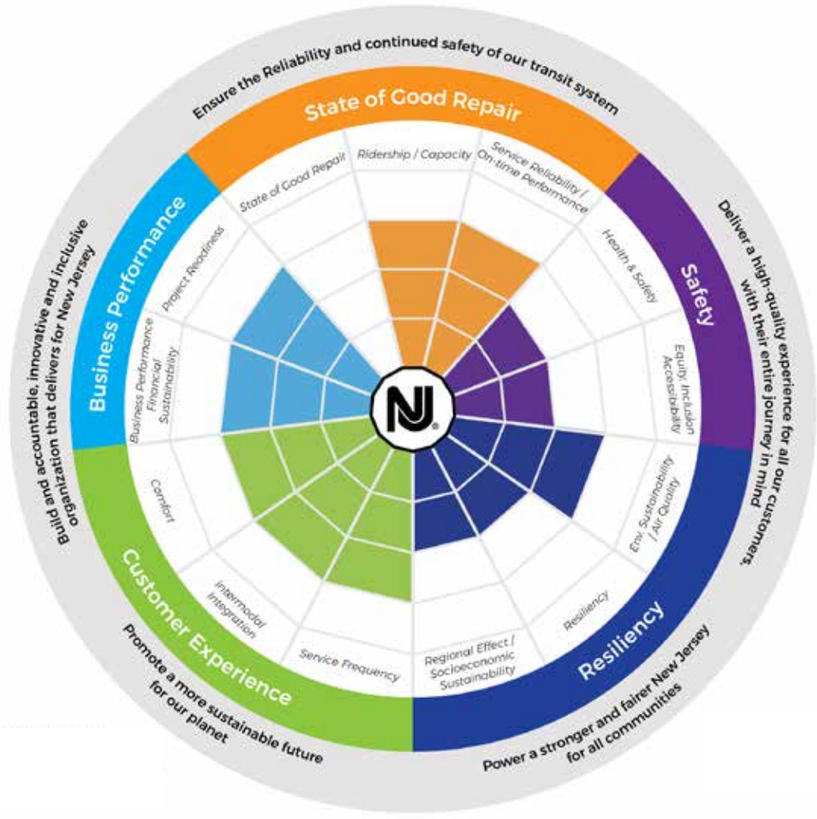
PROJECT SHEET | SECAUCUS TO MEADOWLANDS (BOONTON) TRANSITWAY

Description

This project will evaluate alternatives and develop designs for a rapid transit system (aka. “Transitway”) between NJ TRANSIT’s Secaucus Junction Station and the Meadowlands Sports and Entertainment Complex. The system intends to employ a combination of new and existing transportation infrastructure to accelerate the implementation of revenue service. In addition, the project will assess options to enhance local mobility within the project area, defined as the catchment area of the Boonton Line between roughly Montclair and Secaucus, with additional consideration of later stages that could extend to Newark and Jersey City.

The intention of the Secaucus to Meadowlands (Boonton) Transitway is to leverage existing rights-of-way and partner with adjacent transportation infrastructure owners (such as New Jersey Department of Transportation and New Jersey Transit Authority) to quickly and cost effectively implement environmentally friendly transit access between NJ TRANSIT’s existing system and the Meadowlands Sports and Entertainment Complex. This includes evaluating variations on new service west to Newark and/or Montclair as well as east to Jersey City’s Grove Street Path Station.

POTENTIAL ALTERNATIVE: Rapid Transit System



ESTIMATED PROJECT COSTS (2020 DOLLARS):

TBD

Value to State

- Creates a more economically competitive region with improved local growth opportunities
- Develops a more efficient and environmentally sustainable transit network
- Lessens congestion on local roads and major highways

Value to Customers

- Expands transit network to provide more convenient options for customers
- Enhances connectivity to major transit hubs, employment centers, educational institutions, medical centers, and other major attractions
- Provides improved and expanded access to the Meadowland Sports and Entertainment Complex

PROJECT SHEET SECAUCUS TO MEADOWLANDS (BOONTON) TRANSITWAY

ESTIMATED TOTAL PROJECT COSTS

TBD

Business Performance/Financial Sustainability
Increased ridership will results from increased transit connections to big destinations

Service Quality/Frequency
Enhanced and quick service will be implemented

Ridership/Capacity
Increased capacity and ridership potential will result from this new service

Intermodal Integration
This service will provide more opportunities to connect various transit services to and at the Meadowlands

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Quickly and cost effectively ***implement transit access between NJ TRANSIT's existing system and the Meadowlands Sports/ Entertainment Complex***

PROJECT SHEET | PORTAL BRIDGE REPLACEMENT (PORTAL NORTH)

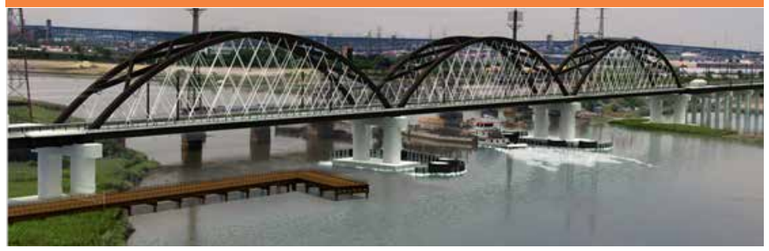
Description

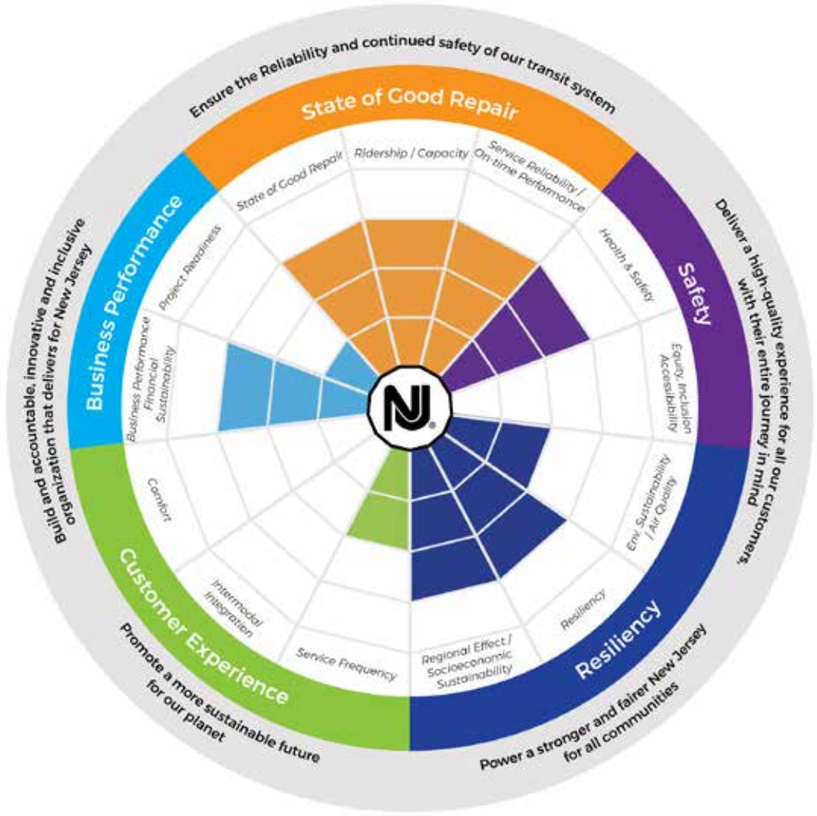
The existing Portal Bridge is a ±960-foot long structure which carries the Northeast Corridor (NEC) over the Hackensack River between Newark Penn Station and Secaucus Junction. The existing movable, swing span bridge was constructed in 1910, is 110-years old, and has exceeded its originally intended service life. Due to its age and frequency of use, the movable bridge is costly and difficult to maintain and experiences frequent breakdowns. The two-track bridge creates a bottleneck between the four-track territories to the east and west and requires train speed reductions of 30% which contributes to a decrease in rail service reliability. Given its low vertical clearance to the river, frequent bridge openings are required to accommodate marine traffic. Also, mechanical component malfunctions often cause the bridge to be open for extended periods of time, resulting in frequent, lengthy delays of rail service on the NEC. Additionally, the existing bridge does not have enough capacity to accommodate anticipated future demand.

If funded, this project would replace the existing bridge with a higher, more reliable, double track fixed bridge on a new alignment to the north of the existing bridge. The increased vertical profile would eliminate interruptions to rail service due to required bridge openings. The new north bridge would also eliminate speed restrictions, thereby improving rail operation and capacity across the span. A second, two-track southern bridge, Portal South, is contemplated separately as part of the overall Gateway Program, which when complete would substantially increase operational capacity along this critical length of the NEC.

EXISTING:
Portal Bridge

PROPOSED:
New Bridge





ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$1.660 Billion**

** Total estimated 2020 project cost indicates total cost over span of the project and includes funds already spent*

Value to Customers

- Increases on-time performance, safety, and service reliability
- Accommodates NEC ridership growth 2009-2019

Value to State

- Lowers operating expenses to enable more efficient use of public funds
- Reduces potential injuries by decreasing on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET PORTAL BRIDGE REPLACEMENT (PORTAL NORTH)

ESTIMATED TOTAL PROJECT COSTS

***$1.660B**

**TOTAL ESTIMATED 2020 PROJECT COST INDICATES TOTAL COST OVER SPAN OF THE PROJECT AND INCLUDES FUNDS ALREADY SPENT*

Business Performance/Financial Sustainability
Track outages would be reduced, and costly maintenance and manual bridge openings would no longer be needed

Service Reliability
The new bridge would vastly improve reliability and allow for further service improvements

Ridership/Capacity
A double track fixed bridge would accommodate more trains and ridership growth

Regional Effect/Socioeconomic Sustainability
Delays resulting from bridge openings and speed restrictions would be eliminated along a critical portion of the NEC

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*The project would **eliminate interruptions to rail service** due to bridge openings and speed restrictions to **improve rail operation and capacity**.*

PROJECT SHEET | PORTAL BRIDGE CAPACITY ENHANCEMENT (PORTAL SOUTH)

Description

The existing Portal Bridge carries the Northeast Corridor over the Hackensack River between Newark Penn Station and Secaucus Junction. The existing movable, swing span bridge was constructed in 1910 (109-years old) and has exceeded its originally intended service life. Due to its age and frequency of use given, the movable bridge is costly and difficult to maintain. The existing two-track bridge creates a bottleneck between the four-track territories to the east and west, conflicts with marine traffic, and restricts operating speeds by 30% which all contribute to reductions in service reliability. Recurring bridge openings coupled with mechanical component malfunctions cause the bridge to be open for long periods of time, resulting in frequent, lengthy delays on the corridor. The existing double track bridge does not have enough capacity to accommodate current demand on the corridor. While the new two track Portal North bridge will have expanded capacity providing higher allowable trains speeds, future demand must include an additional two tracks of capacity to keep pace with growth trends.

If funded, Portal South Bridge would provide two additional tracks across the Hackensack River, matching the four-track territories to the east and west, substantially increasing operational capacity along this critical length of the Northeast Corridor. Unlike proposed Portal North Bridge, Amtrak Acela service would not need to be supported on the new south crossing. As a result, several structure alternatives could be feasible for a proposed Portal South Bridge, including a movable span along the existing right of way, providing an opportunity for reduced approach work and significant cost savings. This project would be a key component of the Gateway Capacity Enhancement Program.

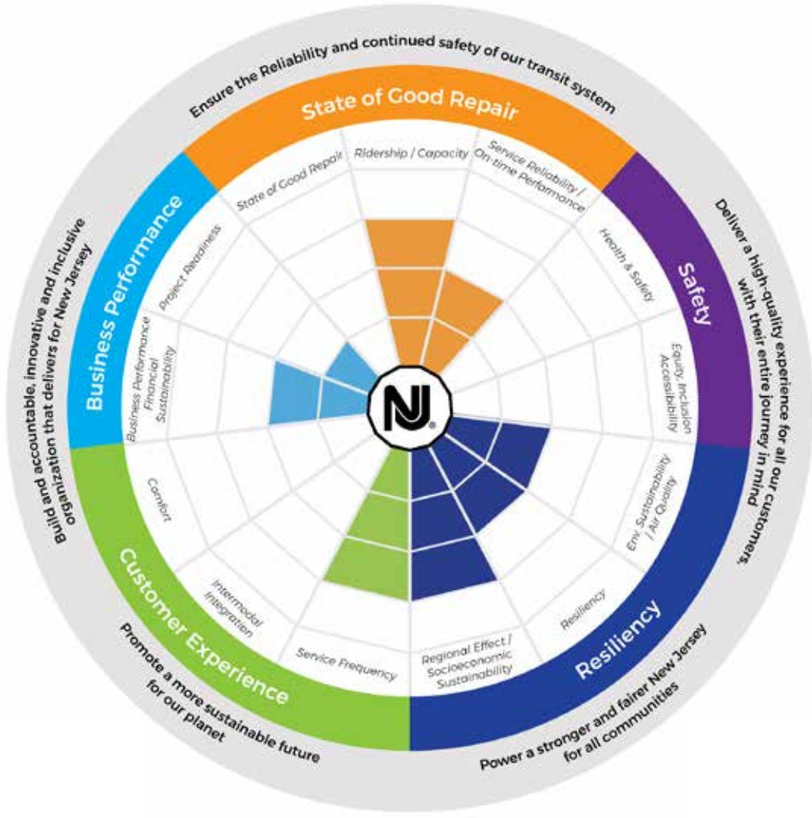
ESTIMATED PROJECT COSTS (2020 DOLLARS):

$431 Million

FUTURE PORTAL NORTH BRIDGE

PROPOSED: New Portal South Crossing Adjacent to Portal North Bridge

** Similar to Raritan River Bridge*



Value to Customers

- Increased on-time-performance, safety, and service reliability

Value to State

- Lowers operating expenses and uses public funds efficiently
- Reduces potential injuries associated with increased on-site maintenance work
- Increases return on investment from increased ridership

PROJECT SHEET PORTAL BRIDGE CAPACITY ENHANCEMENT (PORTAL SOUTH)

ESTIMATED TOTAL PROJECT COSTS

$431M

Business Performance/Financial Sustainability
Resulting increases in line capacity and redundancy would decrease operating expenses and allow for increased ridership

Regional Effect/Socioeconomic Sustainability
The new bridge would improve operations by relieving congestion and increasing capacity along a critically important portion of the NEC

Ridership/Capacity
An additional double track bridge would increase line capacity to accommodate more trains and ridership growth

Service Quality/Frequency
The new bridge would be operationally redundant to reduce delays and allow for increased levels of service

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Portal South would **increase line capacity and improve operations** along the NEC.*

PROJECT SHEET | PENN STATION NEW YORK - NJ TRANSIT ACCESS IMPROVEMENTS

Description

New York Penn Station serves as a major rail hub for the Long Island Rail Road, Amtrak and NJ TRANSIT. As the busiest terminal station for NJ TRANSIT rail operations, Penn Station New York services Northeast Corridor, North Jersey Coast, Raritan Valley (limited), Morris and Essex, Gladstone, and Montclair Boonton Lines. During peak periods, NJ TRANSIT typically operates on 12 of the terminal's 21 tracks, sharing platform space with Amtrak.

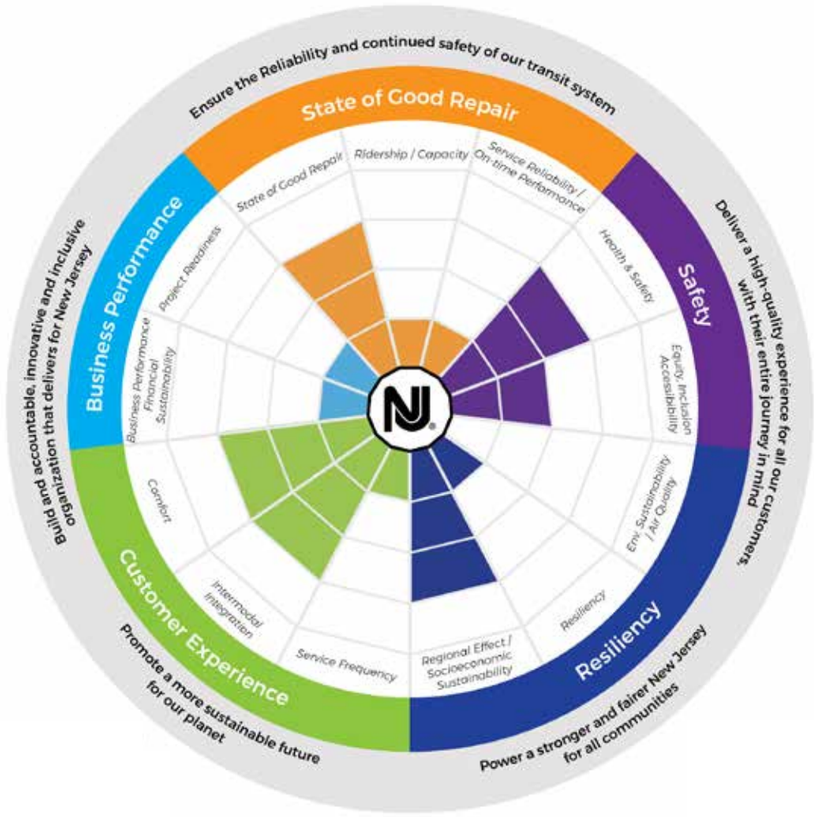
There are serious vertical access and egress issues between platforms which serve NJ TRANSIT trains and station concourse levels. These issues are exacerbated by limited access points within the station and by current separation between the main East and West End concourses. This project would extend the existing Central Concourse to allow for more vertical access to existing train platforms serving NJ TRANSIT, improve the existing Hilton Corridor so it better connects between vertical access points to platforms, and improve signage and wayfinding to facilitate the safe and efficient movement of passengers and visitors. A new accessible entrance between the extended concourse and the street level would be created. These enhancements target commuter safety and convenience to increase capacity and improve passenger experience.

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$340 Million**

**Estimate based upon concept design*

EXISTING: Station Corridors



Value to Customers

- Enhances travel experience with new facilities
- Improves signage and communications to relay station information and rail service status
- Streamlines passenger movement between station and platforms

Value to State

- Increase safety of passengers by reduction of overcrowding on station platforms
- Reduces delays associated with slower passenger egress

PROJECT SHEET PENN STATION NEW YORK - NJ TRANSIT ACCESS IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$340M

Comfort
New platform access points, signage, and wayfinding would streamline and enhance customer movements

Health/Safety
Platform congestion would be reduced by adding new vertical access and egress points, signage, and wayfinding

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Regional Effect/Socioeconomic Sustainability
Improving access to platforms at NJ TRANSIT's biggest terminal station would reduce delays

State of Good Repair
Building new infrastructure would reduce regular customer access disruptions and increase capacity

*Access improvements at Penn Station New York would **enhance travel experience**, **increase safety**, and **reduce delays**.*

PROJECT SHEET | HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE I

Description

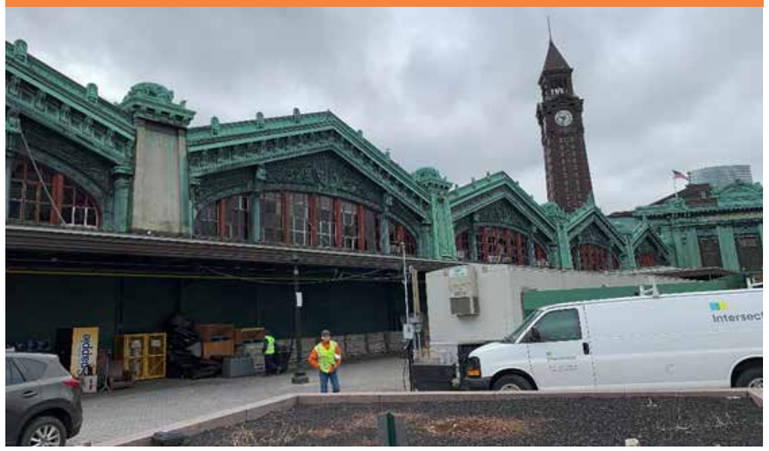
Hoboken Terminal is one of NJ TRANSIT's major transportation hubs, serving over 17,000 passengers on an average weekday with its rail service alone. The terminal also supports bus and light rail passengers, while providing access to PATH trains and ferries to and from New York City.

The Hoboken Terminal and Yard Resilient Redevelopment Project would be a three phased approach to address many of the state of good repair and resiliency challenges that the Terminal faces. At the same times, the redevelopment project would provide opportunities for increasing capacity for rail, bus, light rail, and ferry service. In addition, the redevelopment project would provide opportunities for improving overall operation and passenger flow between the various transportation modes. The capacity improvements would provide opportunities for both increased revenues on several modes, as well as provide NJ TRANSIT with the ability to provide vital system redundancy to both its rail and bus network in the event that primary routes to New York City via the Hudson River Tunnels or bridges become unavailable. This redundancy would also prove invaluable during any major renovation to primary routes to New York City or at any of the major New York City Terminal.

If funded, Phase I of the Redevelopment Program would address the facilities that require immediate attention to maintain state of good repair of current services at the terminal, while facilitating the future long-term development goals of the project captured in Phase II. The first phase of the project would include rehabilitation of the existing Long Hallway and YMCA buildings at the terminal, which are beyond the end of their service life and are in need of rehabilitation to address several noted deficiencies, including the removal of mold and asbestos. Both Long Hallway and the YMCA buildings recently served as facilities and crew quarters for hundreds of NJ TRANSIT employees, some of which have been relocated due to the condition of the noted facilities. Renovation would provide safer and more reliable facility. Rail infrastructure improvements include track, bridge and structural improvements, including traction power and control systems upgrades to increase commuter capacity, mobility and speed. Also included are plans to consolidate the work locations of the Mechanical Equipment Division staff and provisions for additional equipment inspection capabilities.

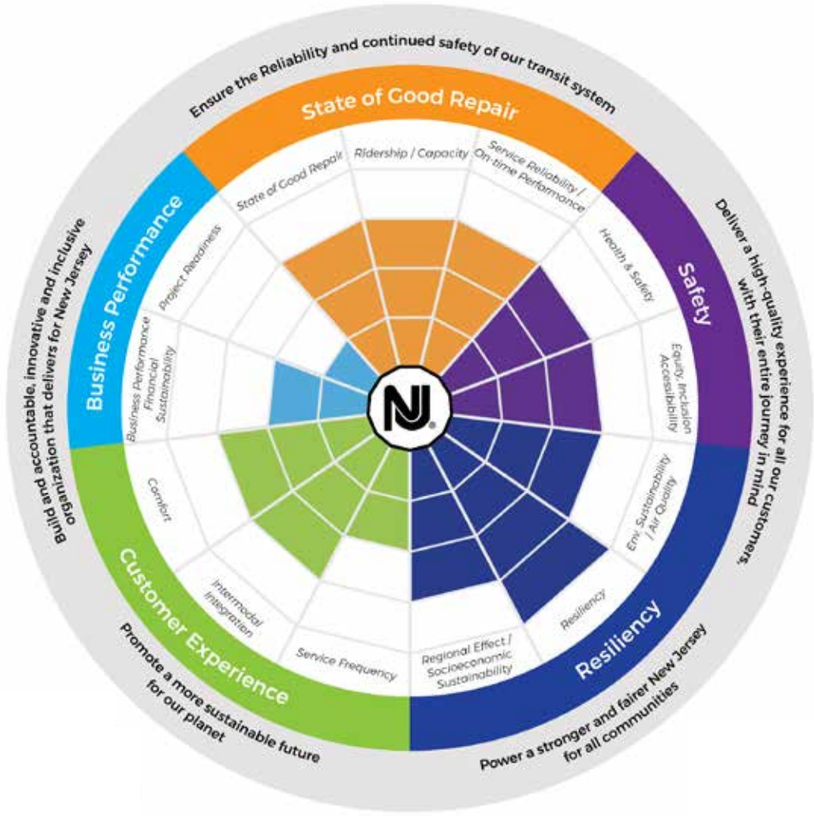
EXISTING:
Hoboken Terminal

PROPOSED:
Hoboken Terminal



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$257 Million



Value to Customers

- Improves state of good repair of facilities
- Lays the groundwork for Phase II of Hoboken Terminal Redevelopment, which will include significant improvements for customers

Value to State

- Eliminates additional expenses with rental of alternative office space
- Enhances safety of working conditions for personnel
- Facilitates Phase II of Hoboken Terminal Redevelopment

PROJECT SHEET | HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE I

PROJECT SHEET HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE I

ESTIMATED TOTAL PROJECT COSTS

$257M

Resiliency
Repairing facilities would make them resilient to nuisance flooding and extreme events

Regional Effect/Socioeconomic Sustainability
All NJ TRANSIT modes pass through the station and would be positively impacted by the redevelopment

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
Addressing facilities that require immediate attention would bring them to a state of good repair

Health/Safety
Fixing facilities that are not safe for customers would make it possible for all facilities to be fully utilized in the future

*Redeveloping Hoboken Terminal and Yard would address **state of good repair challenges** while **improving customer experience and increasing rail, bus, light rail, and ferry capacity**.*

PROJECT SHEET | HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE II

Description

Hoboken Terminal is a critical lynchpin for NJ TRANSIT's system. The terminal's 17 tracks are the terminus for our Pascack Valley, Main/ Bergen, and Gladstone Branch lines. There is also a variety of rail infrastructure at or near the terminal site that assists with daily operations. A rail yard, a fueling facility, and other similar infrastructure pieces are nearby to help ensure service runs efficiently and smoothly. The terminal also has significant bus service as buses from Hoboken travel throughout Hudson County and into New York City. The Hudson Bergen Light Rail also stops at the terminal, and PATH service is present as well. Superstorm Sandy showed, in stark detail, the vulnerability the terminal faces. The storm surge associated with that storm flooded the terminal. Five feet of stormwater flooded the terminal, and it was closed for more than two months as repairs and restorations were made. The terminal remains vulnerable to similar threats in the future. The Capital Plan would address this threat by making the terminal more resilient.

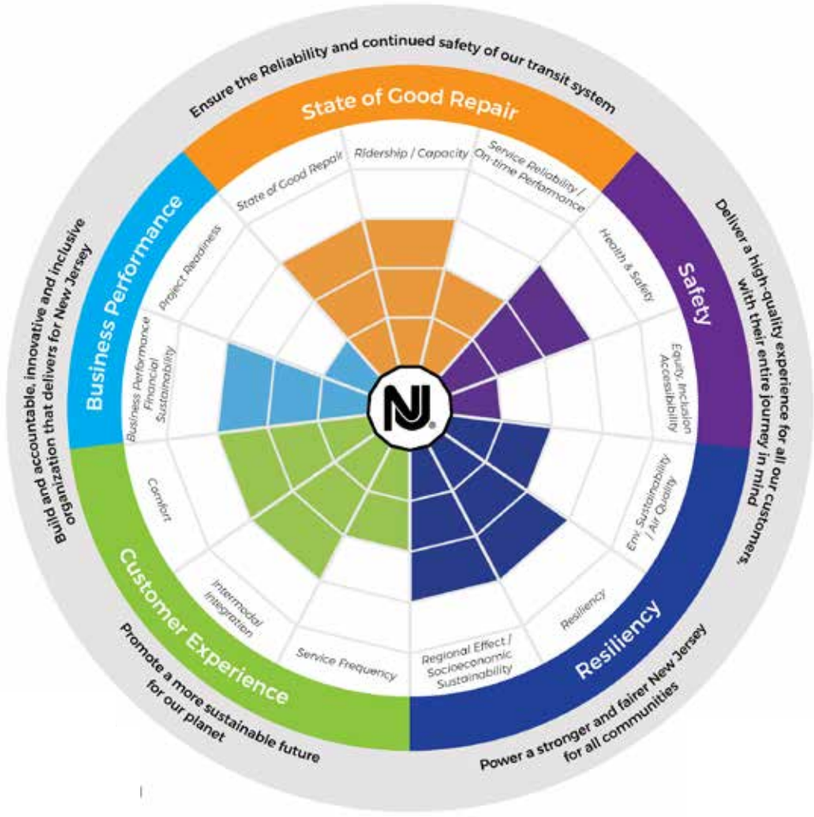
Hoboken Terminal is currently situated on a low-lying area immediately adjacent to the Hudson River, making it susceptible to both periodic nuisance flooding as well as more intense flooding associated with extreme events. The existing terminal layout and aged conditions make flood prevention measures extremely challenging. In 2012 following Superstorm Sandy, operations at Hoboken Terminal were forced to cease until flood waters in the vicinity receded and emergency repairs were conducted. In addition, Hoboken Terminal's historic waiting room was also inundated with water and remained closed for repairs until January 2013.

If funded, the Hoboken Terminal and Yard Resilient Redevelopment Program – Phase II would address many of the resiliency challenges the terminal currently faces, while providing opportunities for increasing the capacity of rail, bus, light rail, and ferry service. In addition, the redevelopment program would provide opportunities for improving overall operation and passenger flow between the various transportation modes. The capacity improvements would provide opportunities for both increased revenues on several modes, as well as provide NJ TRANSIT with the ability to provide vital system redundancy to both the rail and bus networks in the event that primary routes to New York City via the Hudson River Tunnels or bridges become unavailable. This redundancy would also prove invaluable during any major renovation to primary routes to New York City or at any of the major New York City Terminals.

EXISTING:
Hoboken Terminal

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$2.9 Billion



Value to Customers

- Increases bus and light rail service
- Improves customer access and flow between alternate modes of transportation
- Enhances overall customer experience through implementation of improved technology
- Improves access to iconic transportation hub, market, and gathering place

Value to State

- Improves state of good repair
- Enhances resiliency
- Provides auxiliary terminal to New York Penn Station, Port Authority Bus Terminal, and other regional hubs
- Creates potential for additional revenue streams by allowing more opportunities for retail space
- Increases capacity of bus and light rail service
- Provides more resilient terminal that can act as emergency transportation hub during regional catastrophe

PROJECT SHEET | HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE II

Description

The Phase II Resilient Redevelopment Program has several key features:

Elevated Rail Shed and Rail Yard

The rail shed, which houses the train platforms, could be raised approximately 20 feet such that the bottom of structure lies above both FEMA base flood and NJ TRANSIT flood elevations, thereby protecting vital rail infrastructure from both nuisance and extreme event flooding. The raised rail shed could be supported by a framed structure, permitting light rail and/or bus facilities to be housed underneath the shed within the same footprint, along with a new, integrated entrance to the PATH station, providing seamless multimodal access for all customers. The new rail shed would feature high level platforms for improved accessibility to rail service and enhanced safety for both passengers and NJ TRANSIT personnel. Passenger circulation enhancements at the new elevated rail shed would include new stairways, escalators, and elevators to improve customer flow between the various modes of service, PATH Trains and the streets of Hoboken.

The existing yard and approach tracks could also be elevated and supported on a combination of framed structure and structural fill, tying into existing undergrade bridges that cross over Marin Boulevard to the west. Raising of the yard and approach tracks would provide enhanced resiliency for both rail service and train storage. In addition, concurrent reconfiguration of the yards and approaches to Hoboken Terminal during the redevelopment work could provide an opportunity to eliminate some unfavorable track configurations, which were implemented decades ago and have caused operating inefficiencies, speed reductions, and periodic disruptions to rail and yard operations, particularly with some of the newer rail rolling stock. Relocation of service/inspection facilities and other maintenance facilities to a new location nearby could also be included as part of the redevelopment process to augment yard operations, continue maintenance service during construction, and provide opportunities for NJ TRANSIT to reduce noise and pollution in the densely populated city of Hoboken. The elevated and redeveloped yard could be fully electrified.

Restored and Repurposed Terminal Buildings

The existing terminal building consists of multiple sections including the historic Hoboken Waiting Room, the Upper Concourse, and Long Hallway. The Hoboken Terminal and Yard Resilient Redevelopment Program could renovate each portion of the facility, as well as restore and repurpose those sections which have limited use in their present-day configuration within the terminal.

Enhanced flood resistance measures could be implemented at the historic waiting room, which includes passenger facilities such as ticket windows and restrooms. Improvements such as restored and enhanced passenger stairwells and ramps, as well as the introduction of new elevators could improve access for passengers to the elevated rail shed and other parts of the terminal. The existing Upper Concourse, which is situated adjacent to and above the waiting room, currently consists of over 28,000 square feet of unused open space. This area could be restored and repurposed into an iconic marketplace to give both customers and visitors alike access to various retail shops and gathering spaces. The existing Long Hallway, which is adjacent to the Upper Concourse and currently functions as the crew quarters and facilities for NJ TRANSIT personnel, is slated for base renovation during Phase I of the Terminal and Yard Resilient Redevelopment Program to address several existing deficiencies. Like the Upper Concourse, this section could also be repurposed and closely coordinated with the City of Hoboken's vision for development in and around the historic Hoboken Terminal.

Expanded Bus Terminal

The existing bus terminal, which is currently located north of the existing at-grade rail shed, contains only five bus lanes to facilitate bus routes between Hoboken, NYC, and other NJ communities. Existing site constraints, particularly the at-grade rail shed, provide very little room to expand the existing terminal and its capacity. The redevelopment program could relocate the existing bus terminal underneath the proposed elevated rail shed, just southwest of its current location. The proposed bus terminal could include over 20 bus lanes, vastly enhancing capacity. The proximity of the buses to both rail and light rail service would improve passenger movements between the various modes of transportation. The bus passenger waiting areas and concourse could be vastly improved, with wider passenger walkways for improved customer movement, eliminating the existing narrow and congested passenger walkways which traverse bus entry lanes. Additional space for bus parking and layover could also be provided, facilitating the terminal's use as an auxiliary or overflow facility in the event of disruption of service at other major transportation terminals in New York City or the region.

Relocated and Expanded Light Rail Station

The existing light rail station is located at the far south end of the terminal and rail shed. Its current location is nearly a quarter of a mile walk from the both the adjacent city streets and existing bus terminal, making it very inconvenient for customers to access. It is also far away from the ferry slips and PATH stations, which light rail customers primarily use for transfers to service into NYC. The redevelopment program proposes relocating the light rail station underneath the elevated train shed or above the elevated train shed to better align with the other modes of service at the terminal to bring customers closer to their points of transfer or access to the city streets. In addition, an additional track is proposed to increase light rail station capacity at the terminal. The relocation and additional platform would enhance light rail travel capacity and passenger access and egress efficiency, making it more convenient to customers.

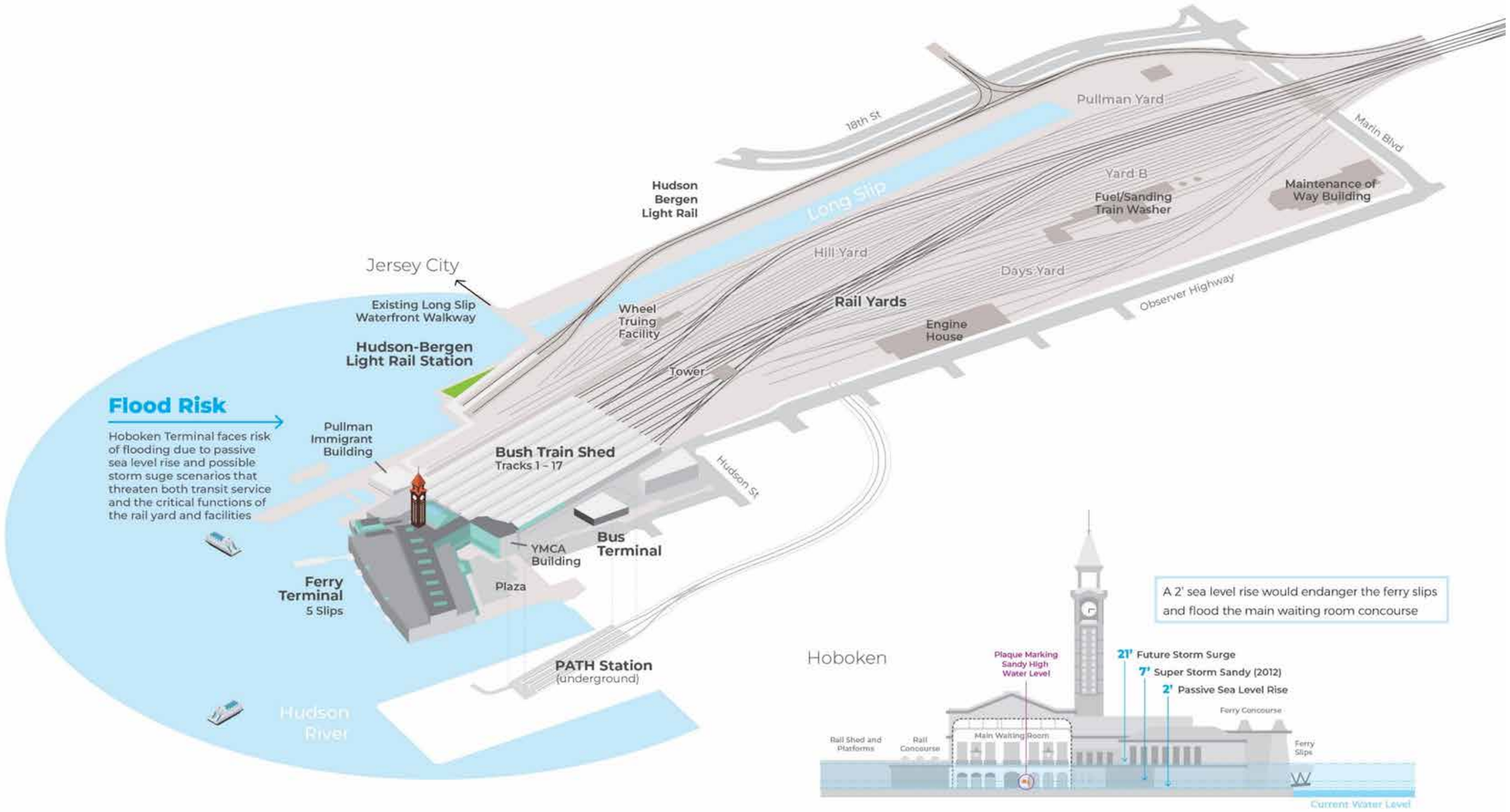
Expansion of South Ferry Terminal

As a part of a multi Trans-Hudson strategy, NJ TRANSIT intends to explore purchasing up to 12 additional high-speed ferry vessels with a vessel size of approximately 350 passengers. These ferries would be purchased in conjunction with the funding ferry terminal enhancements in Hoboken and New York City, and port storage improvements to accommodate this expanded service. Initiatives to accommodate a potential ferry fleet include redevelopment of the existing piers adjacent to Track 17 in the southeast corner of the terminal and are included with the New Jersey Ferry Fleet Expansion Project.

Expansion and Redevelopment of Personnel Facilities

Hoboken Terminal is home to a substantial number of NJ TRANSIT employees. Initiatives of the proposed redevelopment could include enhanced capacity and upgraded facilities for NJ TRANSIT employees. During Phase I, the YMCA building would be refurbished, creating an upgraded space for NJ TRANSIT employee use. Construction of a new crew quarters is contemplated as part of the Long Slip Canal Phase II work and would be located at the terminal. A new police headquarters could also be constructed on site, along with medical, EAP, and station management. To support all NJ TRANSIT employees, a new parking lot would be proposed on site.

PROJECT SHEET | HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE II



PROJECT SHEET HOBOKEN TERMINAL AND YARD RESILIENT REDEVELOPMENT PROGRAM - PHASE II

ESTIMATED TOTAL PROJECT COSTS

$2.9B

Resiliency
New facilities would be resilient to nuisance flooding and extreme events and provide redundancy in the event of service disruptions

Business Performance/Financial Sustainability
New facilities would reduce maintenance costs and develop retail, as well as increase capacity of bus and light rail and improve rail operation to allow the facility to handle more customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

State of Good Repair
New facilities, including rail, light rail, and bus infrastructure, would replace aging facilities, rehabilitate a historic building, and modernize obsolete equipment

Intermodal Integration
Streamlined passenger flow and new modal facilities would improve customer access to all modes of transit

*Redeveloping Hoboken Terminal and Yard would **improve state of good repair**, **address resiliency challenges**, and allow for **more efficient intermodal integration**.*

PROJECT SHEET | HOBOKEN LONG SLIP

Description

Hoboken Terminal is one of NJ TRANSIT's major transportation hubs, serving over 17,000 passengers on an average weekday with its rail service alone. The terminal also supports bus and light rail passengers, while providing access to PATH trains and ferries to and from New York City.

The Hoboken Redevelopment Project is a three phased approach to address many of the state of good repair and resiliency challenges which the terminal faces, while at the same time provide opportunities for increasing capacity for rail, bus, light rail, and ferry service.

Concurrent to Phase I is the proposed work on Long Slip. Adjacent to the terminal and alongside the existing Hoboken Yard at the Hudson River Waterfront is Long Slip Canal. It is a one-third mile long, one hundred-foot wide canal that was formerly used for marine shipping traffic, but has been inactive for more than 40 years. In 2012, the storm surge from Superstorm Sandy caused the Long Slip Canal to overflow its banks resulting in significant flood damage to both passenger and yard facilities at Hoboken Terminal. Weeks of remedial work followed this event. Several tracks at the terminal were also temporarily out of service, significantly reducing the rail capacity at this vital transit hub.

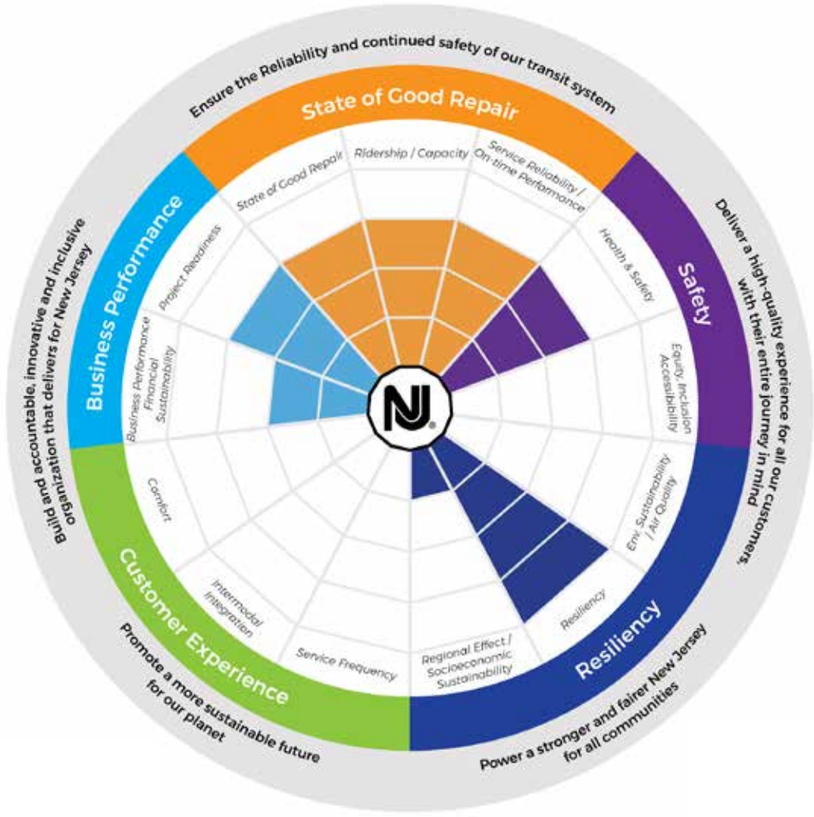
If funded, the Long Slip redevelopment would initially address some of the resiliency needs at Hoboken Terminal while providing additional operational flexibility. The project is broken into two phases: Phase I includes filling of the existing canal with structural fill and surcharging; Phase II includes construction of six new tracks with high level platforms and a small crew quarters facility on the filled in canal. These additional tracks would be constructed above the base flood elevation and provide emergency capacity in the event multiple main track outages are incurred, such as following an extreme weather event. This increased capacity would also allow for implementation of the Hoboken Terminal Redevelopment Plan which includes a comprehensive approach to providing substantial resiliency and redundancy as well as enhanced capacity of both Hoboken Terminal, ensuring its service as an essential hub facility within the NJ TRANSIT transportation network.

EXISTING:
Long Slip Canal

ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$195 Million**

**Total estimated 2020 project cost indicates total cost over span of the project and includes funds already spent.*



Value to Customers

- Reduces train delays following extreme weather events
- Increases operational flexibility

Value to State

- Increases service reliability and mitigates revenue disruptions
- Provides additional rail capacity as needed to accommodate future ridership growth

PROJECT SHEET HOBOKEN LONG SLIP

ESTIMATED TOTAL PROJECT COSTS

***$195M**

**TOTAL ESTIMATED 2020 PROJECT COST INDICATES TOTAL COST OVER SPAN OF THE PROJECT AND INCLUDES FUNDS ALREADY SPENT*

Service Reliability
Additional tracks will reduce train delays following extreme weather events

Ridership/Capacity
Increased rail operational capacity at the station would enable more riders to utilize the rail network via Hoboken

State of Good Repair
Increasing track operational capacity and raising track beds and platforms would bring these facilities up to a state of good repair

Resiliency
Constructing tracks and platforms above base flood elevation, providing emergency capacity, and allowing for the redevelopment of Hoboken Terminal and Yard would improve resiliency

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Redevelopment of Long Slip would **address some resiliency needs** at Hoboken Terminal while **providing operational flexibility** and **improved reliability**.*

PROJECT SHEET | GATEWAY STORAGE YARD AND MAINTENANCE FACILITY

Description

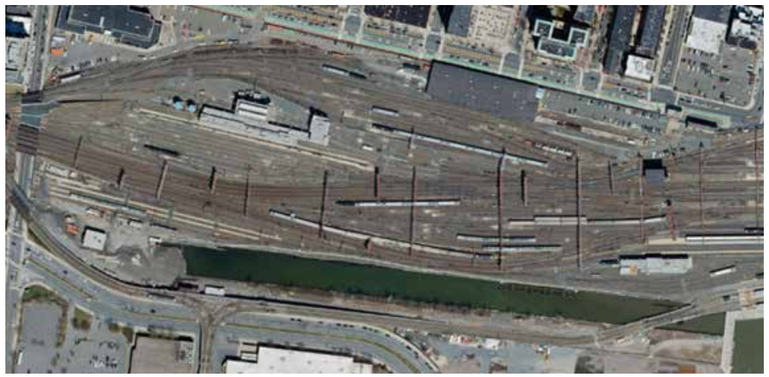
NJ TRANSIT has experienced substantial ridership increases on all of its rail lines. This is due in part to the popularity of the Midtown Direct services to Penn Station New York. The increased service and demand has led to a complex weekday operation for the agency, as there is inadequate yard space close to New York to store trains between morning and evening peak service. As a result, empty trains must make long/empty midday trips back to remote yards throughout New Jersey, some of which are 50 miles or more from New York. This results in unnecessary wear and tear on NJ TRANSIT assets, increased labor costs, and unaffordable congestion on the overall system.

A new storage yard and service facility owned and operated by NJ TRANSIT with local access to and from New York Penn Station and all NJ TRANSIT lines would eliminate unnecessary and costly rail movements and improve overall operational efficiency throughout the system. It is critical that such a yard be proximate to New York and key NJ TRANSIT hubs in order to maximize the value of the investment by minimizing empty train movements throughout the system.

Other rail system improvements described in the Capital Plan are designed to provide opportunities to unlock the potential of the system and increase rail service. However, to realize both the full potential of the system and keep operating costs to a minimum, a larger rail fleet and appropriately placed storage for it will be required. The Gateway Program ultimately proposes to double trans-Hudson capacity, allowing NJ TRANSIT to operate additional peak period trains to an expanded Penn Station New York.

In addition, planned work to restore Hoboken Terminal and expand its flood resiliency and service capacity will require temporary and/or permanent relocation of train storage capacity in low lying areas of the Hoboken Terminal Yard. It will also allow NJ TRANSIT to eliminate certain functions from that yard such as refueling, car wash, and diesel engine service functions, which are undesirable within the floodplain. This new yard would serve that function, as well as allow the agency to better accommodate future growth of the rail fleet and provide the required storage and maintenance capacity to sustain and support NJ TRANSIT's rail service.

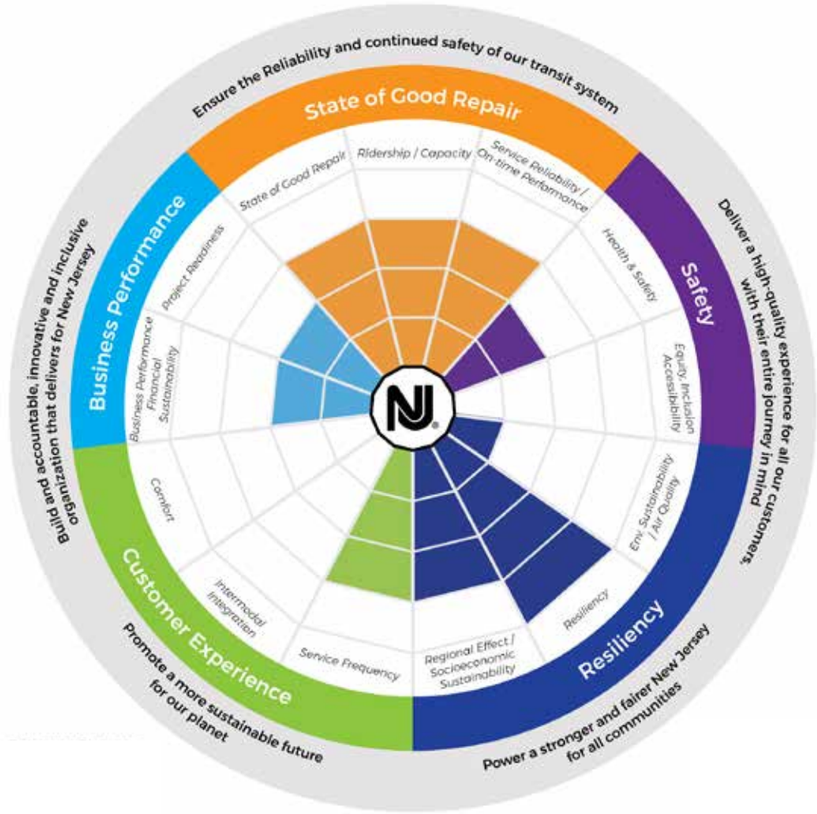
EXISTING: Hoboken Yard



ESTIMATED PROJECT COSTS (2020 DOLLARS):

***$2.4 Billion**

**Work and funding made in conjunction with Gateway Portal Partners*



Value to Customers

- Facilitates improvements to Hoboken Terminal and Yard
- Improves rail reliability and on-time performance

Value to State

- Expands Trans-Hudson capacity needed to accommodate future economic growth.
- Provides additional train storage and maintenance capacity to accommodate rail fleet growth

PROJECT SHEET GATEWAY STORAGE YARD AND MAINTENANCE FACILITY

ESTIMATED TOTAL PROJECT COSTS

***$2.4B**

**WORK AND FUNDING MADE IN CONJUNCTION WITH GATEWAY PORTAL PARTNERS*

Resiliency
The yard will support upgrades at Hoboken Terminal and Yard by providing space to relocate storage capacity away from flood-prone low lying areas

Regional Effect/Socioeconomic Sustainability
The additional yard would accommodate storage and maintenance of trains across the NJ TRANSIT rail system

Ridership/Capacity
A new yard would allow NJ TRANSIT to accommodate future growth of the rail fleet and support increased service levels

Service Reliability
The new yard would reduce capacity constraints and increase service reliability for trains

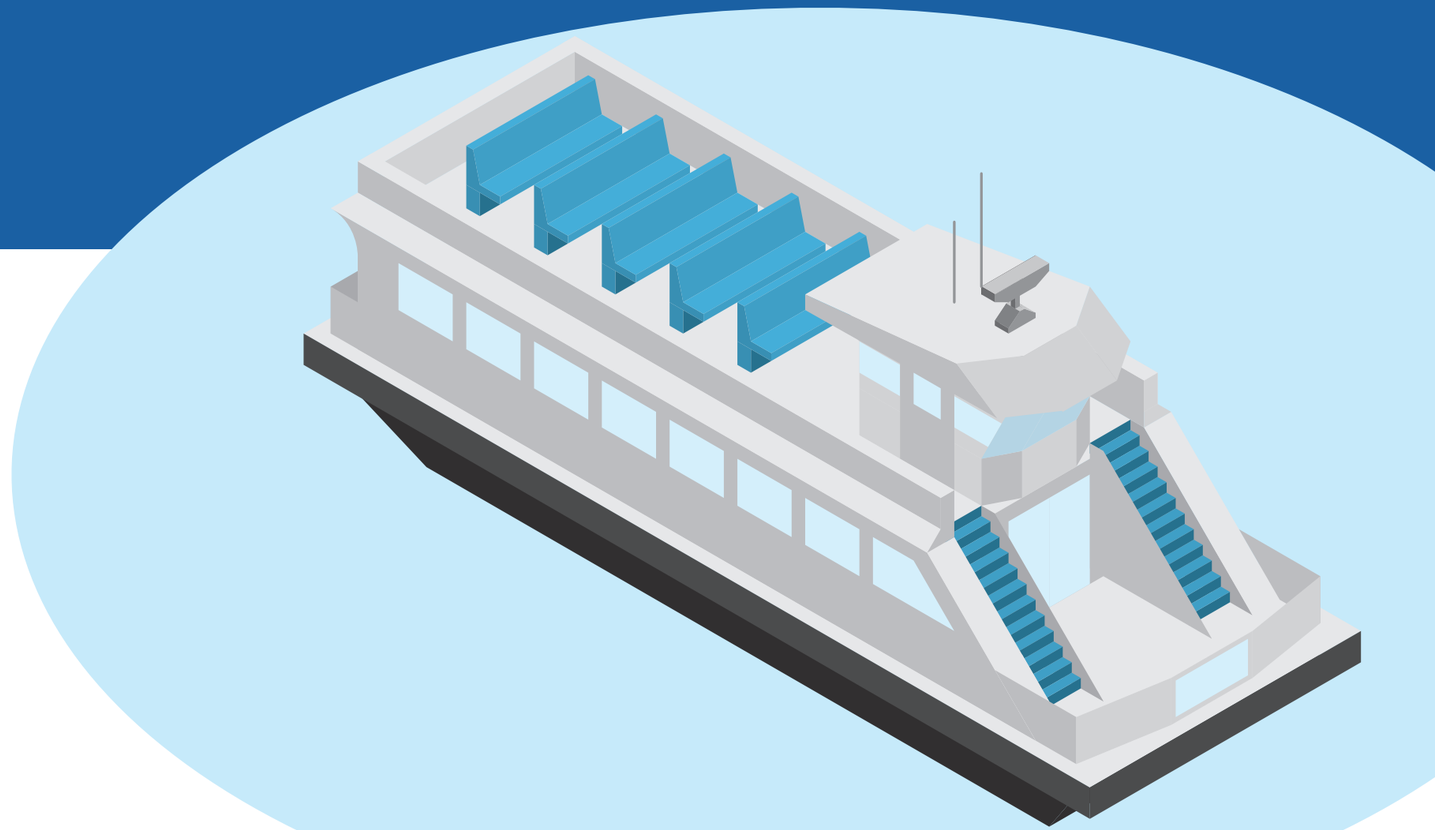
STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

A new storage yard and maintenance facility will ***accommodate needed growth in the NJ TRANSIT commuter rail system****.*

Ferry



PROJECT SHEET | NEW JERSEY FERRY FLEET EXPANSION

Description

NJ TRANSIT's service to Hoboken Terminal relies heavily on agency partnerships with the Port Authority's PATH system and private ferry carriers to bring customers to New York City. As a part of a multi Trans-Hudson strategy, NJ TRANSIT intends to purchase up to 12 additional high-speed ferry vessels with a vessel size of approximately 350 passengers. These ferries would be purchased in conjunction with the funding ferry terminal enhancements in Hoboken and New York City, and port storage improvements to accommodate this expanded service.

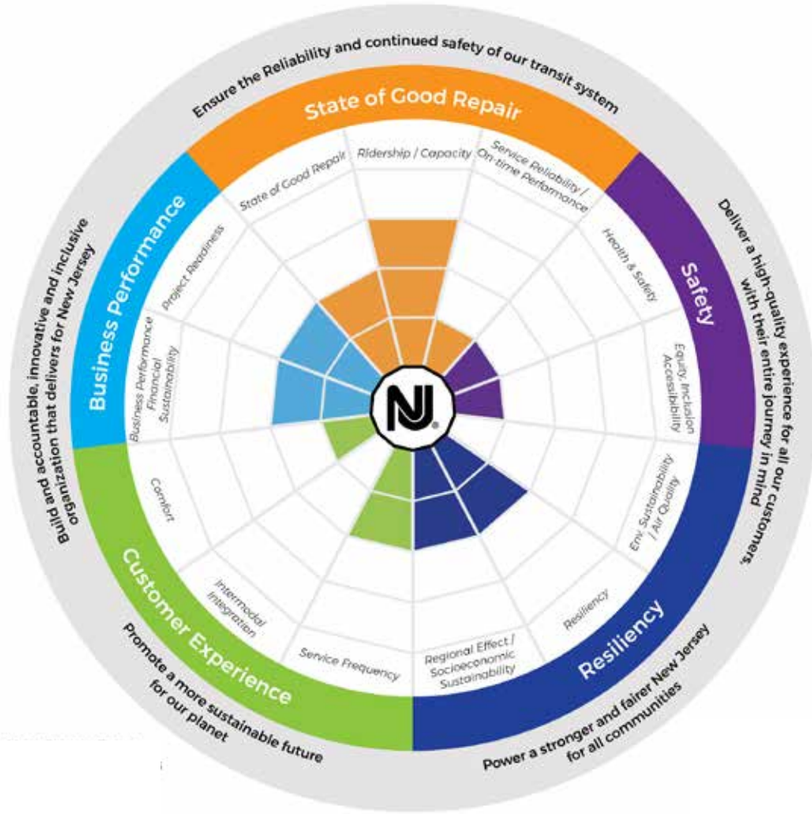
If funded, an expanded high-speed ferry fleet would improve Trans-Hudson capacity, improve customer comfort, and help mitigate future growth strains on the transit systems linking New Jersey residents to New York City. Ferries also play a critical role in emergency situations and give NJ TRANSIT the flexibility to include the fleet as a holistic strategy to mitigate day-to-day or longer-term service disruptions. To accommodate the expanding fleet, the existing piers adjacent to Track 17 in the southeast corner of Hoboken Terminal would be redeveloped to supplement the existing ferry terminal. Additional floating docks would also be installed at Pier 78 in NYC to accommodate growth in service.

HOBOKEN TERMINAL

	Line Item
1	New Ferries (High Speed Vessels 350 passengers) X 12
2.1	Design of walkway connection between 7-train & ferry terminal
2	1 pier with 4 floating docks at pier 78 (NYC)
3	Upgrades to Hoboken Piers and 4 additional floating docks
4	Fleet storage dock (4 piers)

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$414 Million



Value to Customers

- Provides faster, more comfortable service to NYC
- Creates greater intermodal opportunities at Hoboken

Value to State

- Expands Trans-Hudson capacity needed to accommodate future economic growth
- Increases return on investment from increased ridership

PROJECT SHEET NEW JERSEY FERRY FLEET EXPANSION

ESTIMATED TOTAL PROJECT COSTS

$414M

Regional Effect/Socioeconomic Sustainability
Improved and expanded ferry operations would enhance the transit link between the state of New Jersey and Manhattan

State of Good Repair
Expanding and upgrading the ferry fleet would enhance service and improve overall state of good repair

Ridership/Capacity
Expanded service and a modernized ferry fleet would accommodate future growth and mitigate strains on existing transit systems

Service Quality/Frequency
New ferries would be equipped with modern features to offer high quality, more frequent service

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

*An expanded high-speed ferry fleet would **improve Trans-Hudson capacity, improve service quality**, and **mitigate any future strains on transit systems** linking New Jersey to New York City.*

Health and Safety

PROJECT SHEET | POLICE PATROL AND OPERATIONS POST

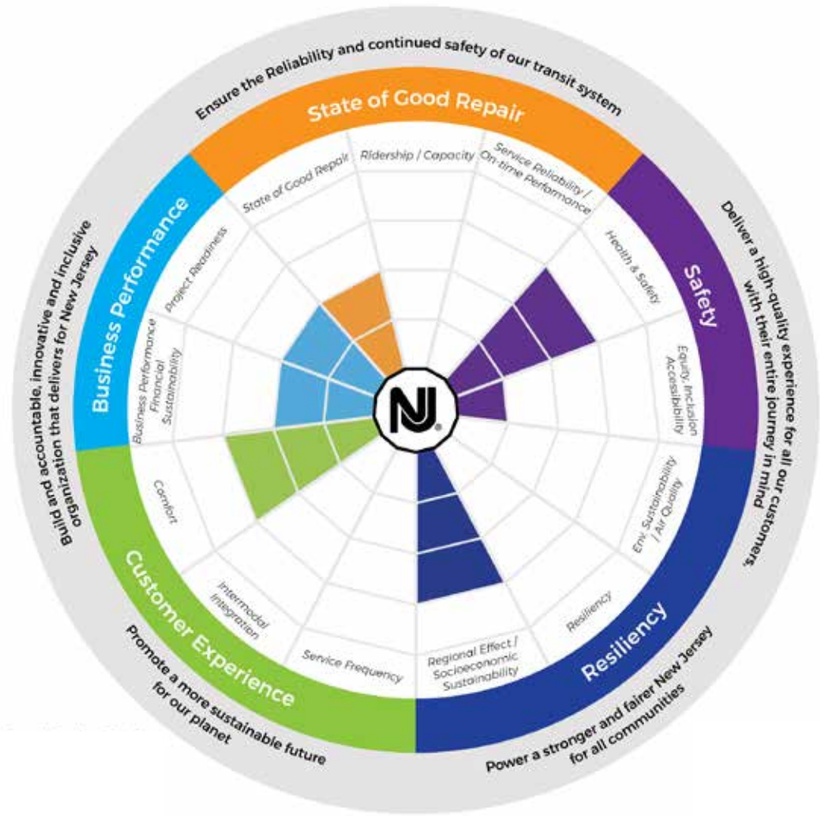
Description

The NJ TRANSIT Police Department services the various bus stops, rail, and light rail stations owned by NJ TRANSIT to enhance the security and safety of commuters. NJ TRANSIT Police operates out of seven command centers located at major transportation hubs within the seven NJ Districts: One Penn Plaza HQ (District 1), Newark Penn Station (District 2), Hoboken Terminal (District 3), Secaucus Junction (District 4), Trenton Transit Center (District 5), Walter Rand Bus Terminal (District 6), and the Atlantic City Bus Terminal (District 7). However, there are no local shelters or command posts for police at the stations. This makes it more challenging to efficiently patrol the various stops and stations and requires the police to report back to the respective district command post after each shift.

If funded, this project would construct police patrol and operations posts at various rail stations and at major bus terminals to facilitate patrol operations. The shelters would act as local command posts and allow police to more efficiently patrol stations and bus terminals. These shelters would also mitigate the need to physically report back to the district command posts after each shift, which would drastically save NJ TRANSIT Police time and money that can be better spent on providing more security at each transportation hub. In addition, police command centers at Atlantic City Bus Terminal and Secaucus Junction would see upgrades on top of the shelter implementation systemwide.

EXISTING:
Long Branch Police Post

PROPOSED:
Local Police Post



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$13 Million

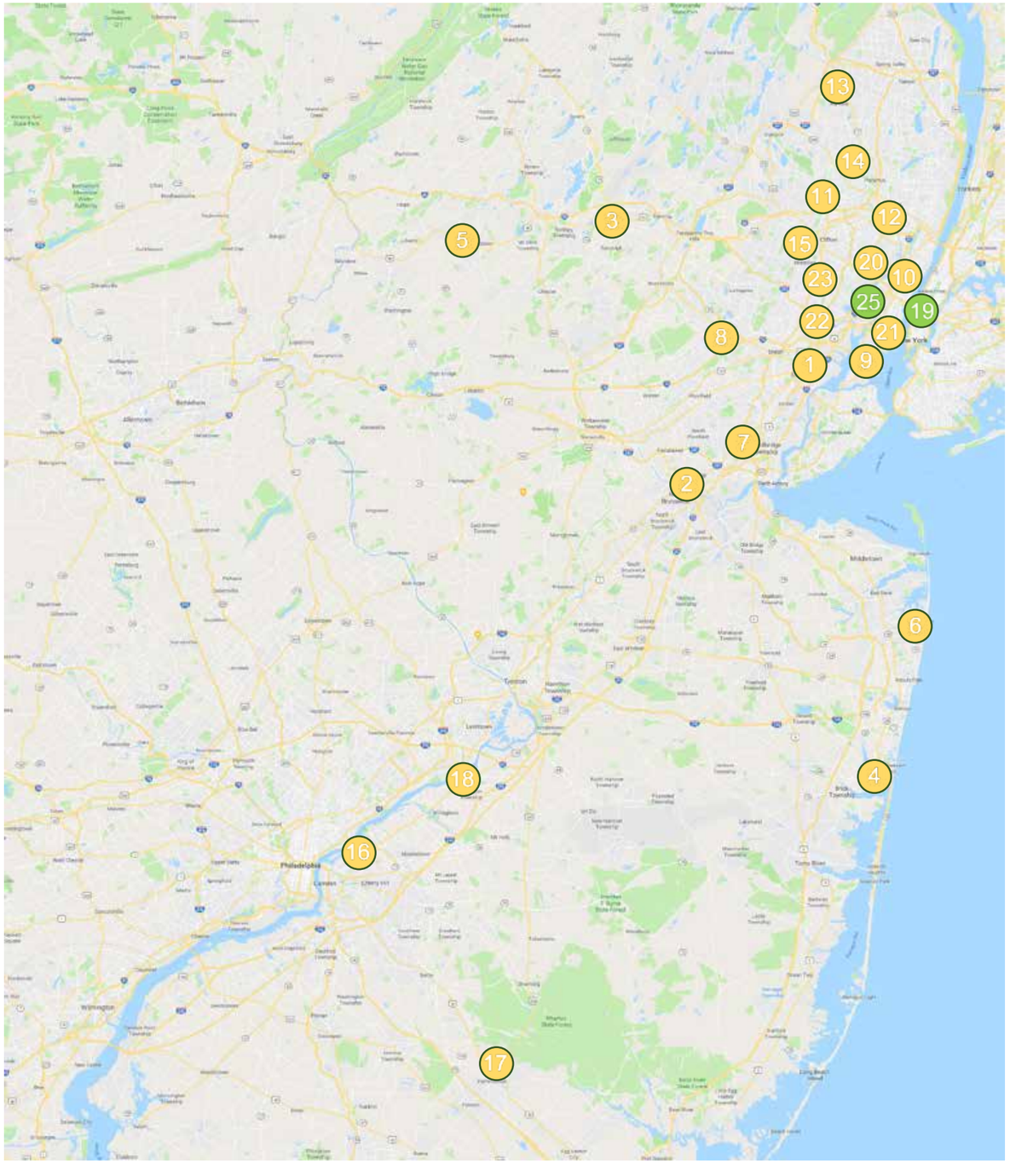
Value to Customers

› Increases safety and security for customers

Value to State

› Reduces expenses incurred by requiring police to report back to district command posts

PROJECT SHEET | POLICE PATROL AND OPERATIONS POST



	Shelter	District	Line
1	Elizabeth	2	NEC
2	New Brunswick	2	NEC
3	Dover	2	M&E
4	Bay Head	6	NJCL
5	Hackettstown	2	M&E
6	Long Branch	2	NJCL
7	Metro Park	2	NEC
8	Summit	2	M&E
9	8th Street	3	HBLR
10	Tonnelle Ave.	3	HBLR
11	Paterson	4	MLBC
12	Hackensack	4	BUS
13	Ramsey Rt.17	4	MLBC
14	Ridgewood	4	MLBC
15	Great Notch Yard	2	MOBO
16	Pennsauken	6	AC
17	Hammonton	7	AC
18	Burlington	6	RL
19	New York Penn	-	NEC
20	Meadowlands	3	PVL
21	Liberty State Park	3	HBLR
22	Orange Street	2	NLR
23	Grove Street	2	NLR
24(1)	Atlantic City	6	AC
25	Secaucus	3	ALL

(1) Atlantic City not shown on map

Legend

	Proposed New Shelter
	Proposed Shelter Rehab

PROJECT SHEET POLICE PATROL AND OPERATIONS POST

ESTIMATED TOTAL PROJECT COSTS

$13M

Business Performance/Financial Sustainability
New network of police posts would allow for more efficient use of resources and reduction in expenses by eliminating having to report back to the district command posts after each shift

Comfort
Additional police posts would improve NJ TRANSIT police response times

Health/Safety
Additional police posts would improve security and response times

Regional Effect/Socioeconomic Sustainability
New police posts would be added throughout the rail and bus networks

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*New patrol and operations posts would **improve safety** and **police efficiency** across the bus and rail systems.*

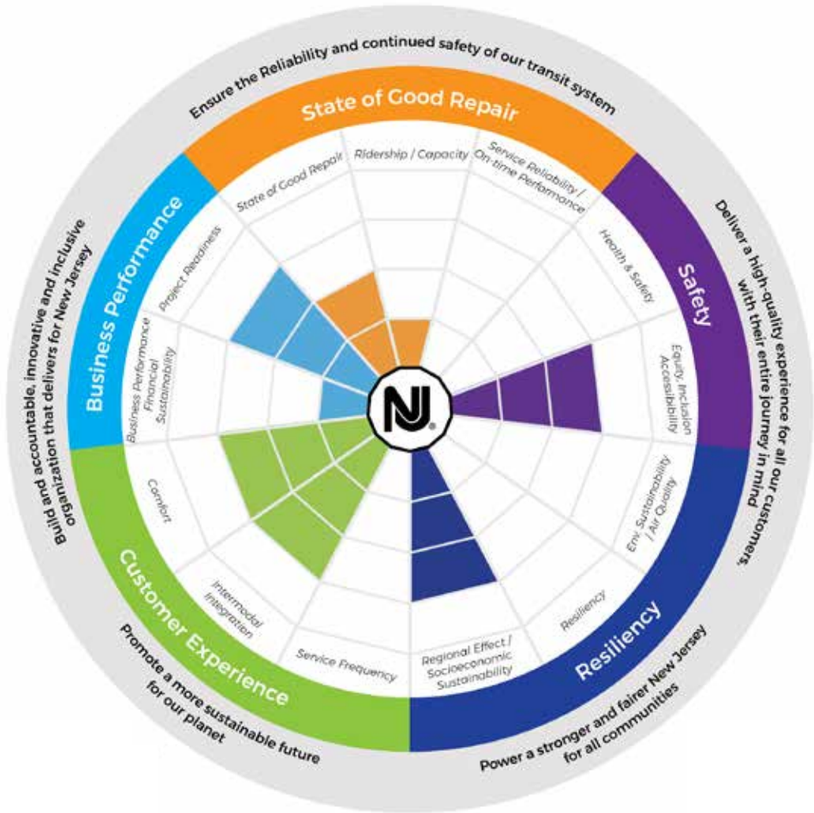
Technology, Asset Management, and Planning

PROJECT SHEET | COMPREHENSIVE TRIP PLANNER

Description

This project would develop a comprehensive transit trip planner database and app under the Federal Transit Administration's Mobility on Demand Sandbox "subprogram." The goal of this project is to enhance the visibility of community transit options and connections to fixed route services. The database and app could also form the foundations of a future Mobility as a Service initiative by adding additional modes as searchable services.

If funded, the project would help community transit providers develop new General Transit Feed Specification (GTFS)-flex databases of their on-demand and curb-hail services that currently cannot be processed by Google and other conventional trip planning apps. A website and app would be developed for customers to create personal trip itineraries across all transit services "visible" to the GTFS-flex enabled search engine. This would allow trips to be planned by customers using community transit and traditional transit around all areas of New Jersey.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$3 Million

Value to Customers

- Creates a more economically competitive region with improved local growth opportunities
- Provides better connectivity for customers across the state
- Creates safer travel choices for state residents
- Develops new and innovative technologies to improve transportation options

Value to State

- Improves transit system connections across the state
- Improves first/last mile transit options for customers
- Creates safer and more efficient transit options

PROJECT SHEET COMPREHENSIVE TRIP PLANNER

ESTIMATED TOTAL PROJECT COSTS

$3M

Regional Effect/Socioeconomic Sustainability
A new trip planner app that pairs users with the best trip plan would enable customers to use transit more effectively across the state

Comfort
By using the trip planner app, customers can plan their trip more effectively and decrease trip times

Intermodal Integration
Trip planning tools that offer customers multiple options would allow for more efficient integration of modes during trips

Equity, Inclusion & Accessibility
The trip planner app will integrate community and traditional transit networks to provide customers with more convenient travel choices and better connectivity

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

*The trip planner app would **allow trips to be easily planned by customers using community transit and traditional transit** all around New Jersey.*

PROJECT SHEET | NJ TRANSIT MOBILE APP DEVELOPMENT

Description

The NJ TRANSIT Mobile App serves over 3.1 million customers, providing the tools to plan a trip, pay the fare and be informed with Rail real time travel information. Over the next five years, continuous investment in the app is required to keep pace with rapidly improving mobile technology and rising customer expectations, new technology which will allow NJ TRANSIT to support every aspect of our customers commute or trip. Broadly, NJ TRANSIT will capitalize on geotargeting in trip planning, service and station alerts, and onboard notifications; cooperate with neighboring transit agencies to develop support for regional travel; and, integrate with third party vendors to provide first and last mile travel options into the app. During the next five years both the customer facing design and functionality of the app and back end systems supporting it will require ongoing development, including cloud integration, blockchain transactional database design and a mobile test lab.

If funded, a state-of-the-art application would improve our customer's experience and draw a larger share of customers to the app, which would in turn decrease NJ TRANSIT's operational costs.

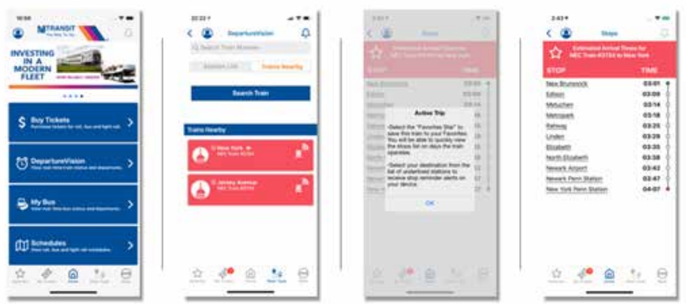
	Line Item
1	GPS enabled app with active trips across Rail/ Bus/LR
2	Way Finding/trip planning/next stops
3	Third Party integration/rideshare/bikeshare/ parking
4	Regional Ticketing/MTA/PATH/ SEPTA/Amtrak
5	App interface redesign/enhancement
6	Back end redesign/mobile test lab & cloud integration & block chain

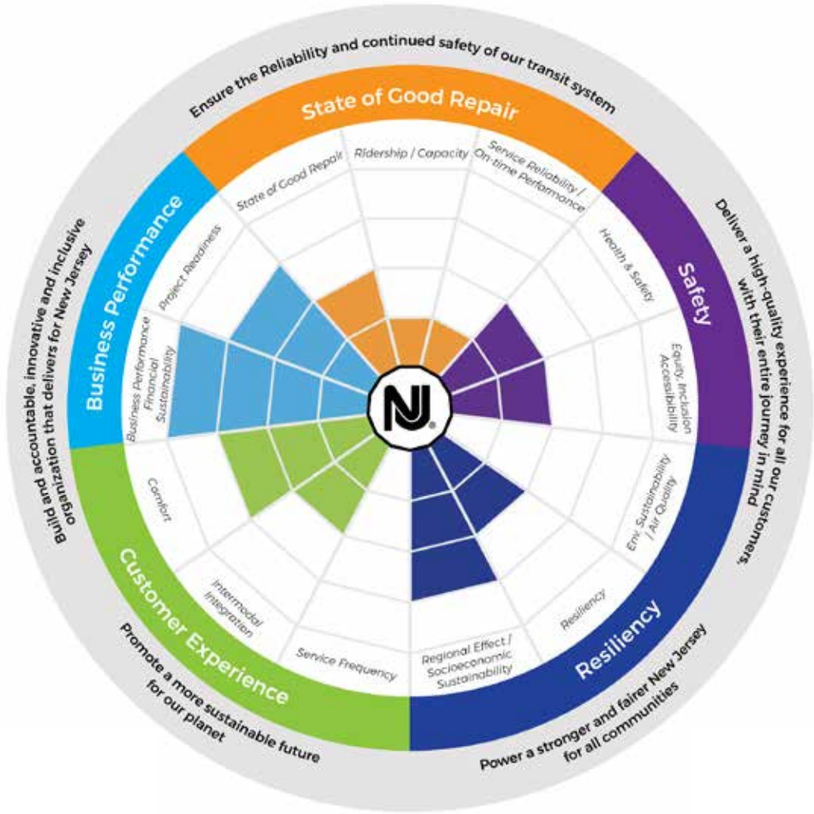
ESTIMATED PROJECT COSTS (2020 DOLLARS):

$4 Million

EXISTING: NJ TRANSIT App

PROPOSED: NJ TRANSIT App





Value to Customers

- Plan, purchase and track their trip
- Simplify regional travel
- Real time arrival/departure information across rail/bus/light rail

Value to State

- Continue to migrate riders to NJ TRANSIT's most efficient sales channel.
- Increase customer satisfaction by improving communication from NJ TRANSIT

PROJECT SHEET NJ TRANSIT MOBILE APP DEVELOPMENT

ESTIMATED TOTAL PROJECT COSTS

$4M

Regional Effect/Socioeconomic Sustainability
Improving the mobile app to add new functionality and meet changing customer expectations will simplify regional travel across all modes

Comfort
An improved app platform that offers more information to customers on arrivals/departures, transit connections, and service alerts would improve trip customer quality

Project Readiness
Upgrades to the mobile can be completed within five years and can be rolled out quickly to customers in phases

Business Performance/Financial Sustainability
An app with more real time information, planning tools, and streamlined sales would decrease operating costs and improve customer retention

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

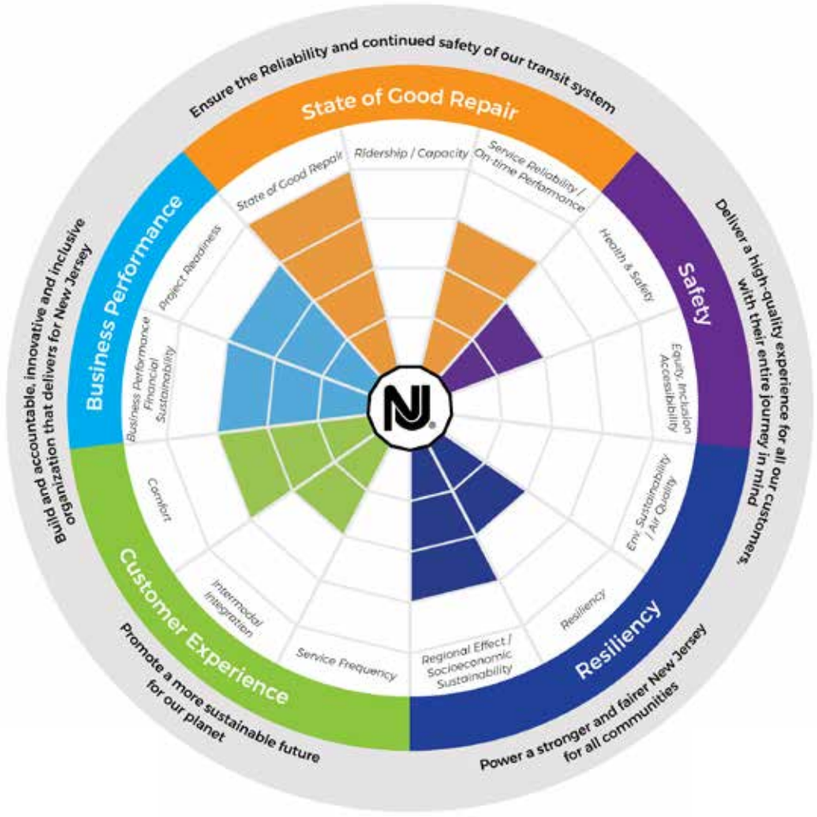
*A state-of-the-art mobile app would **improve customer experience**, **simplify regional travel**, and **decrease NJ TRANSIT operating costs**.*

PROJECT SHEET | IT BUSINESS UNIT IMPROVEMENTS

Description

NJ TRANSIT is investing in internal, business unit. and customer-facing Information Technology (IT) infrastructure to become a leader in the digital revolution in public transportation over the next five years.

If funded, IT Business Units Improvements would create safer, more secure, more robust, and more dynamic processes to improve overall customer experiences, provide real time information updates, and better support employees in their work. These improvements would streamline processes and invest in the people who keep the NJ TRANSIT system running. Projects would support business units in eradicating manual processes and implementing automation to develop operational efficiencies and increase productivity. Providing staff with the latest tools would improve customer service and deploying enterprise asset management systems would enable staff to ensure critical assets perform at maximum efficiency.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$126 Million

Value to Customers

- Improves the experience and convenience of non-ride infrastructure
- Deploys the tools, technology, and talent to listen and react to customers in real-time
- Uses NJ TRANSIT as a daily touchpoint to create a sense of pride in the state and its economy for our customers by targeting pain points in journeys, payments, and accessibility

Value to State

- Invests in digital technology and people to improve communications with customers
- Modernizes technology and process to allow NJ TRANSIT to be a leader in transit technology
- Enables NJ TRANSIT to develop insights rapidly by improving capabilities
- Pushes organization towards a culture of automation, business intelligence, and process improvement in HR, Finance, Procurement, Compliance, and Internal Communications

PROJECT SHEET | IT BUSINESS UNIT IMPROVEMENTS

Program	Project	Strategy
Procurement Process Improvement	Enhanced Vendor Management	Establish industry leading procurement practices
	Procurement Automation	
	Uplift Procurement Technology	
	Procurement integration with Business Intelligence	
HR	Digitized Evaluation of Employee	Invest in the people who keep our transit system running
	HR Consolidation	
Finance	Finance Enhancements	Invest in the people who keep our transit system running
Customer Oriented Improvements	Customer Satisfaction Enhancement	Improve information flow to and from customers
	NJ Transit Technology uplift	Deliver tech that improves customer experience
	Customer Communication Enhancement	Inform: Improve information flow to and from customers
	Digitization of Social Communication	Enhance customer comfort throughout their journey
	Reform Customer Comfort	Deliver tech that improves customer experience
	Loyalty Program	Deliver tech that improves customer experience
Enterprise Applications	Oracle Upgrades	Deliver tech that improves customer experience
	Cashless Payments	Integrate and expedite customer payments
	Enterprise Asset Management	Enhance our fleet through replacement and preventative maintenance programs
	Economic and Technology Intelligence	Keep improving tech that improves customer experience
	Improved Data Strategy	Improve our collection and use of data to drive better decision-making
All BU	Business Process Re-engineering	Deliver tech that improves customer experience

PROJECT SHEET IT BUSINESS UNIT IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$126M

Business Performance/Financial Sustainability
Automating internal processes would decrease paperwork for staff and increase agency efficiency

Comfort
Improvements to agency business processes will provide staff with the tools to enhance customer experience and better listen and react to customer needs

Regional Effect/Socioeconomic Sustainability
Upgrading business unit processes to better serve customers and staff would positively affect the entire transit network

State of Good Repair
Creating efficient enterprise applications to monitor agency assets would increase operational efficiency and improve state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Build an accountable, innovative, and inclusive organization that delivers for New Jersey

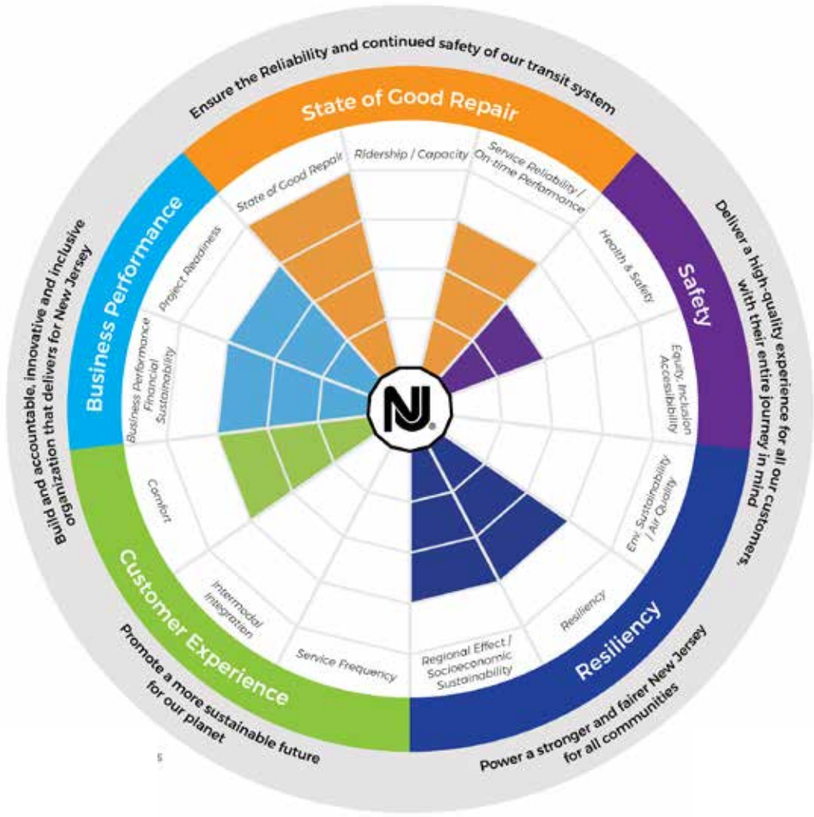
*Agency-wide business unit improvements would **help create safe, secure, robust, and dynamic processes to improve customer experience** throughout the journey.*

PROJECT SHEET | IT HQ IMPROVEMENTS

Description

NJ TRANSIT is investing in internal, business unit. and customer-facing Information Technology (IT) infrastructure to become a leader in the digital revolution in public transportation over the next five years.

If funded, IT improvement projects would uplift and modernize IT Infrastructure, IT security, IT support, and monitoring, PMO set up to improve overall technology and related domain for NJ TRANSIT. To reinforce the backbone of NJ TRANSIT operations, IT improvement projects would be focused on revolutionizing infrastructure and network capabilities to improve customer and staff experiences. A portion of projects would focus on disaster recovery to prevent data loss and minimize impacts on the organization and our customers. Providing infrastructure resiliency would ensure that there is no disruption at NJ TRANSIT's offices, rail/light rail stations and maintenance yards, bus terminals, garages and Access Link offices. Additional projects would adapt the best project/program portfolio management methodologies to rollout a PMO that will unite business units and keep everyone on track.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$85 Million

Value to Customers

- Provides a safer, more secure environment for our customers and communities we serve

Value to State

- Invests in Information Security to keep NJ TRANSIT resilient (e.g., Disaster Recovery, Business Continuity Planning, embedding security into all protocol)

PROJECT SHEET | IT HQ IMPROVEMENTS

Program	Project	Strategy
IT Infrastructure Upgrade	Infrastructure Resiliency	Enhance system resilience to extreme climate events
	Disaster Recovery Implementation	Provide a safer, more secure environment for our customers and communities we serve
	Cloud Implementation	Provide a safer, more secure environment for our customers and communities we serve
	Service Desk Enhancements	Deliver tech that improves customer experience
	Digital Uplifting Datacenter	Deliver tech that improves customer experience
	Digitization of Manual Processes	Invest in the people who keep our transit system running
IT	Enhanced App Capabilities	Deliver tech that improves customer experience
	Modernization of Workforce	Invest in the people who keep our transit system running
	Security Uplift	Provide a safer, more secure environment for our customers and communities we serve
	Innovative Technology	Keep improving tech that improves customer experience
PMO	Business Collaboration	Invest in the people who keep our transit system running
	Dynamic PMO Rollout	Deliver tech that improves customer experience

PROJECT SHEET IT HQ IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$85M

Business Performance/Financial Sustainability
IT improvements would Increase efficiency of business operation systems and applications

Resiliency
IT improvements at agency headquarters would make technology assets more secure and resilient to security threats

Regional Effect/Socioeconomic Sustainability
Upgraded systems, servers, and applications at headquarters would positively affect the entire network

State of Good Repair
Modernizing applications, servers, and systems would provide staff with the tools to improve the state of good repair of agency IT infrastructure

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Build an accountable, innovative, and inclusive organization that delivers for New Jersey

Upgrading and modernizing IT Infrastructure, security, support, and monitoring would improve NJ TRANSIT's overall technology.

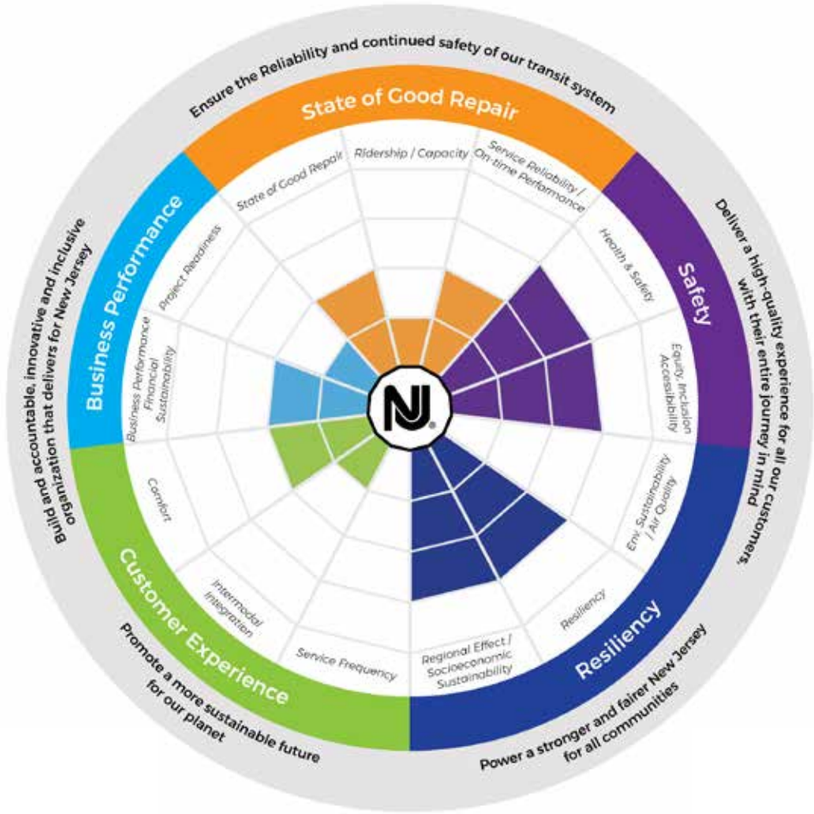
PROJECT SHEET | IT SURFACE TRANSIT IMPROVEMENTS

Description

NJ TRANSIT operates an approximately 2,300 vehicle bus fleet. Much of the software used on buses, in bus garages, and at bus depots is very old and needs to be upgraded to reflect the latest technologies. If funded, this project would help NJ TRANSIT make these upgrades and improve customer satisfaction with features such as ticket validation and app maps with bus locations and vehicle loads. The projects included would also improve driver aid and customer safety with features that would integrate braking, vehicle breakdown detection, and collision warning.

In addition, projects to improve customer experience on NJ TRANSIT's Access Link paratransit service would also be included.

Upgrades to the light rail PA systems, which include Newark Light Rail, River LINE, and Hudson Bergen Light Rail, would be included to better provide information to customers.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$158 Million

Value to Customers

› Provides a safer, more secure environment for our customers and communities we serve

Value to State

› Minimizes revenue loss from disruption of services

PROJECT SHEET | IT SURFACE TRANSIT IMPROVEMENTS

Project	Project Description	Strategy
ViriCiti	Electric Bus AVM	Deliver tech that improves customer experience
IVN Upgrade	IVN3 & IVN4 Upgrade to	Deliver tech that improves customer experience
NeverFail Implementation	Establish a High Availability or Disaster Recovery Environment using NeverFail	Deliver tech that improves customer experience
Graphical UI Uplift	Upgrade to Graphical UI	Deliver tech that improves customer experience
CleverCAD Upgrade	CleverCAD Upgrade to 9.5 (Current Version) and Enhancements	Deliver tech that improves customer experience
Disruption Management	Disruption Management will allow to react to unplanned situations to provide the passengers updated information	Deliver tech that improves customer experience
On Board TTS implementation	On-Board Text to Speech (Dispatch Announcements On-Board the Bus)	Deliver tech that improves customer experience
Bus Time Upgrade	BusTime Upgrade for Responsive Website that will allow a more modern and intuitive user experience	Deliver tech that improves customer experience
Quick Turn Enhancements	Quick Turn Schedule Only Updates (for Exceptions/Holidays/Changes)	Deliver tech that improves customer experience
CleverCAD Mobile Enhancement	CleverCAD Mobile Enhancements	Deliver tech that improves customer experience
SmartYard Central System	SmartYard Central System	Deliver tech that improves customer experience
Upgrade to Bus Depot	Upgrading our Bus Depot with latest technology and tools that will provide accurate real time information on buses and enhance customer comfort at Bus Depot	Provide a safer, more secure environment for our customers and communities we serve
Automated Bus Assignment	Technology to improve operations in automating the bus assignments	Deliver tech that improves customer experience
CleverVision implementation	CleverVision implementation	Deliver tech that improves customer experience
Monitor Operator Behavior	Operator Behavior - Module 3 (EcoDrive)	Deliver tech that improves customer experience
AVM OnDemand and Optimization	AVM OnDemand Includes:	Deliver tech that improves customer experience
Luminator Destination Sign Upgrade	Luminator Destination Sign Upgrade Includes:	Deliver tech that improves customer experience
Celrado	Celrado Implementation	Deliver tech that improves customer experience
Customer Safety thru technology	Improve technology assets to ensure customer safety	Provide a safer, more secure environment for our customers and communities we serve
Bus Innovation	Bus innovation: Modernize garages and pilot all-door boarding	Deliver tech that improves customer experience
Bus hardware/software upgrades	Modernize technology on buses to improve reliability and service	Provide a safer, more secure environment for our customers and communities we serve
VMIS Replacement	Vehicle Management Information System replacement	Deliver tech that improves customer experience

PROJECT SHEET | IT SURFACE TRANSIT IMPROVEMENTS

Project	Project Description	Strategy
AL: Yard Management	The Yard Management module supports the vehicle inventory and parking grid definition	Deliver tech that improves customer experience
AL: Viewpoint Implementation	BI/Dashboard Module for AL	Deliver tech that improves customer experience
AL: Merge AL network with Corporate network	Currently AL users are on separate network, request to merge it with Corp network	Deliver tech that improves customer experience
AL: ACD upgrades: phone info displays on computer screen	Phone information displayed for customer care for better customer service	Deliver tech that improves customer experience
AL: Workforce Management software	Employee mgmt for AL, currently done via email	Deliver tech that improves customer experience
AL: E-learning	AL Team members eLearning - to host video, guides, currently done via email	Deliver tech that improves customer experience
AL: Alexa Type solution for AL customers using IVR	Voice enabled features for customers (Like Alexa)	Deliver tech that improves customer experience
AL: Continuously recording video cameras on AL buses (Apollo?)	Upgrade recording capabilities for 24*7 (replace SmartDrive with Apollo). Eight cameras instead of two on buses and four cameras in car.	Deliver tech that improves customer experience
AL: Off-site Ops Center	Need back-up location for AL to support any disruption at Newark	Deliver tech that improves customer experience
AL: Customer ID Cards (images captured at Cert and stored on Trapeze)	Customer ID cards to identify customers	Deliver tech that improves customer experience
AL: Tap and Go payment onboard vehicles	Some customers don’t travel frequently and request this facility	Deliver tech that improves customer experience
LR: Light Rail PA	PA System for Light Rail (River line, Newark, HBLR)	Deliver tech that improves customer experience

PROJECT SHEET IT SURFACE TRANSIT IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$158M

Resiliency
Technology upgrades that improve safety and communication would make all surface transit more resilient to environmental and human induced threats

Health/Safety
The addition of new technologies such as driver assist, integrated breaking, and collision warning would improve driver and passenger safety

Regional Effect/Socioeconomic Sustainability
Upgraded software and integration of new technologies will positively affect the operation of all surface transit

Equity, Inclusion & Accessibility
Improvements to surface transit IT systems will make it easier for Access Link customers to use transit and improve experiences for all surface transit customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

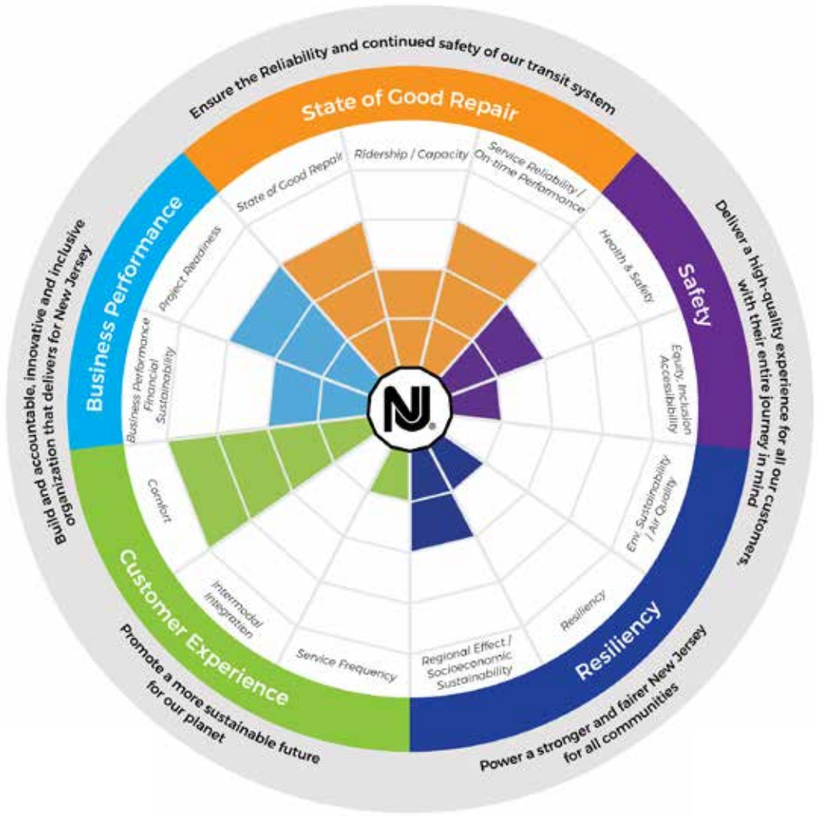
Upgrades to surface transit technologies would ***improve driver and customer safety, make transit easier to use for all customers, and enhance the system's resiliency***.

PROJECT SHEET | IT RAIL IMPROVEMENTS

Description

NJ TRANSIT is investing in internal, business unit, and customer-facing Information Technology (IT) infrastructure to become a leader in the digital revolution in public transportation over the next five years.

IT projects addressing rail improvements would create safer, more secure, more robust, and more dynamic processes to improve customer experiences and provide real time information updates. If funded, these projects would help process improvement, invest in people who keep our transit system running, and invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$56 Million

Value to Customers

- Improves the experience of customer journey, provide more safe, secure, reliable service
- Deploys the tools, technology, and talent to listen and react to customers in real-time
- Invests in digital technology and people to keep NJ TRANSIT safe, secure, reliable to communicate with customers and keep them informed

Value to State

- Enables NJ TRANSIT to get to a single source of truth and develop insights rapidly by improving emerging capabilities in data & analytics, lean methodologies, and API repositories
- Uses NJ TRANSIT as a daily touchpoint to create a sense of pride in the state and its economy for our customers by targeting pain points in journeys, payments, and accessibility

PROJECT SHEET | IT RAIL IMPROVEMENTS

Program	Project	Strategy
Rail	PA system For Rail	Improve information flow to customers
	Rail Asset Management	Invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints
	Smart Train	Smart train with Wi-FI and additional features
	TIMS- Track Information Management System	Deliver tech that improves customer experience
	RTVL- The Real Time Vehicle Locator - capability of locating our trains and equipment in real time	Deliver tech that improves customer experience
	Telematics / ORBITA- predictive asset management	Deliver tech that improves customer experience
	TRS Replacement- Rail's On-Time Performance reporting	Invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints
	TQS Replacement- Rail's train and engine various qualifications	Invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints
	Electronic/Mobile Inspections- Periodic Inspections and Preventive Maintenance	Deliver tech that improves customer experience
	Wi-Fi MMC/ROC	
	Electronic Wheel Set Forms	Deliver tech that improves customer experience
	Infrastructure Engineering Asset Management System	Deliver tech that improves customer experience

PROJECT SHEET IT RAIL IMPROVEMENTS

ESTIMATED TOTAL PROJECT COSTS

$56M

Comfort
Improved customer experience and real-time information updates would increase comfort for customers

Regional Effect/Socioeconomic Sustainability
Rail improvements would target all rail lines across the NJ TRANSIT system

Service Reliability
Targeted rail infrastructure programs would be designed to reduce delays and alleviate capacity constraints

State of Good Repair
Technology improvements to rail infrastructure would enhance the agency's ability to improve and maintain state of good repair

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Implementing IT rail improvements would create ***safe, secure, and robust processes to improve customer experience and state of good repair****.*

PROJECT SHEET | SURFACE TRANSPORTATION TECHNOLOGY INNOVATION PROGRAM

Description

A number of vehicle assist and fleet automation technologies are emerging in the transportation industry. NJ TRANSIT views these technologies as opportunities to improve the safety, reliability, and management of operations in crowded garages, improve driver safety, and realize future enhancements to surface transportation services. If funded, five automation technology pilot projects are proposed.

Automated vehicle (AV) bus pilot project operating in dedicated right-of-way (ROW)

- Test the operations of a fully autonomous 45’ coach bus on a test track at Fort Monmouth that offers different types of intersections to mimic real world traffic conditions.
- Road segments would vary from straight to curved to make pilot testing conditions as realistic as possible
- On-site testing would be fully separated from all other traffic and buses
- Include vehicle procurement services, pilot setup, operations testing, monitoring, and report evaluations

Driver assist bus pilot project operating in mixed traffic

- Assist drivers in increasing spatial and object awareness, limit driver distraction, and ultimately, increase safety on transit lines
- Test the operations of a 45’ bus with driver assist capabilities at normal speeds in mixed traffic on normal revenue passenger routes
- Driver assist technology would be incorporated into a planned bus procurement
- Include vehicle procurement or contract modification with driver assist technologies, pilot setup, operations testing, and report evaluations

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$20 Million

Automated bus project to pilot the automation of bus navigation through a bus garage facility

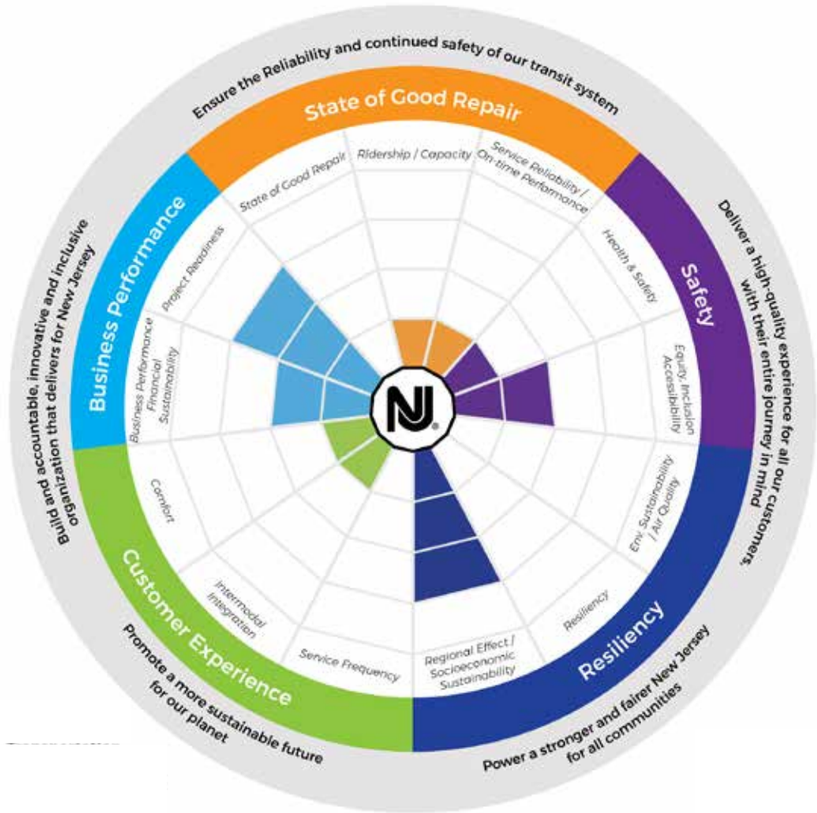
- Make bus movements at the garage facility faster and safer, decrease bus operator error in choosing the wrong bus, and increase operational efficiency
- Retrofit 40’, 45’, and 60’ articulated buses with automated driver assistance systems software
- Software would connect to steering, braking, acceleration, and power switch systems, allowing the bus to autonomously navigate the test site
- Use Meadowlands garage as test facility as it already services these three bus types
- Three phases of testing are recommended with phase one addressing parking and recall, phase two covering wash and fuel, and phase three addressing charging simulation
- Include vehicle procurement services, deployment setup, operations testing, and report evaluations

Driverless automated light rail vehicle (LRV) to evaluate and test use of automated vehicle (AVS) technologies in LRV portion of one NJ TRANSIT Light Rail systems

- Use similar to the infrastructure being tested in buses and autos on segments of light rail systems that could be designated as a test area during hours when the line is not in operation
- Integrate AVS technologies into the LRV, and operate along a ROW that has multiple at-grade crossings and open platform passenger boarding areas
- Work with the vehicle manufacturer to integrate the systems, identify a rail segment for testing, develop a testing plan and operating parameters, and report results from observations and evaluations

Mobility on Demand (MOD) demonstration project

- Pilot for “first mile/last mile” service in three zones along the U.S. Route 9 corridor in central New Jersey
- Partner with transportation network companies (TNC) and taxi operators for on-demand service connecting area residents to mainline U.S. Route 9 commuter buses
- Goal to engage TNCs or taxi operators to serve as feeders to/from regional bus park and rides that allow transit trunk routes to be more frequent and TNCs to serve as more convenient connectors for customer’s first/last mile ride home from the park and ride hubs



Value to Customers

- Lessens disruption to service associated with operational issues and/or maintenance work
- Creates opportunities for improvement in services and safety

Value to State

- More efficient operations and use of limited garage space
- Improvements to vehicular safety
- Develops new and innovative technologies to improve surface transportation services

PROJECT SHEET SURFACE TRANSPORTATION TECHNOLOGY INNOVATION PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$20M

Business Performance/Financial Sustainability
The piloted technologies would ease operations, make more efficient use of crowded facilities, and improve agency capacity to deploy emerging technology

Equity, Inclusion & Accessibility
New vehicle assist and fleet automation technologies would improve transit accessibility for all customers

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

Regional Effect/Socioeconomic Sustainability
The technologies piloted as part of this program have the potential to affect the entire NJ TRANSIT bus and light rail systems

Project Readiness
The pilot program can be completed within five years and begin quickly

Piloting vehicle assist and fleet automation technologies would ***improve reliability and operations****, as well as* ***enhance surface transit services for all customers****.*

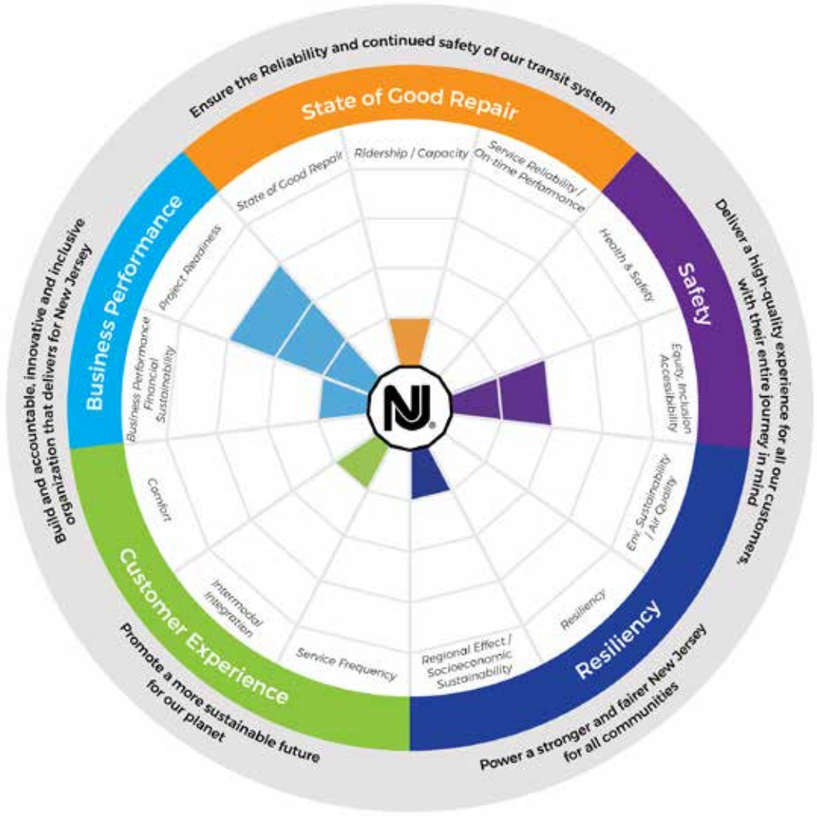
PROJECT SHEET | LOW SPEED AUTONOMOUS SHUTTLE PILOT

Description

A pilot project is proposed to test a low-speed autonomous vehicle (AV) shuttle. This project would assess the feasibility of utilizing an AV system to enhance community transit offerings where more system capacity is needed. Further, the project could reveal opportunities for automated shuttles to provide first mile/last mile access to NJ TRANSIT's existing bus and rail stations.

If funded, this project would test up to three vehicles in two-years at Fort Monmouth. Year One would cover private road testing to build confidence in the system. If successful, Year Two would test open door service around Fort Monmouth and adjacent NJ TRANSIT bus and rail stations, potentially expanding to bus stops on NJ Route 35 and the Little Silver Rail station. Access to and from Fort Monmouth is important as the Fort serves inclusionary, senior, and market-rate housing, as well as support services and a growing technology hub.

PROPOSED:
Autonomous Shuttle



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$8 Million

Value to Customers

- Improves transit system connections
- Improves first/last mile transit options for customers
- Lessens disruption to service associated with operational issues and/or maintenance work

Value to State

- Creates more economically competitive region with improved growth opportunities
- Creates precedent for AV technology in New Jersey that could transform the state's current economic trajectory
- Provides better connectivity for customers
- Improves vehicle safety
- Development of new and innovative technologies to improve surface transportation services

PROJECT SHEET LOW SPEED AUTONOMOUS SHUTTLE PILOT

ESTIMATED TOTAL PROJECT COSTS

$8M

Business Performance/Financial Sustainability
The pilot project would decrease operations and maintenance costs as many of the operations would be automated

Regional Effect/Socioeconomic Sustainability
This pilot project could potentially be used on many buses across the NJ TRANSIT bus system

Project Readiness
This pilot project could be completed within two years and would be ready to start very quickly

Equity, Inclusion & Accessibility
The pilot project would serve inclusionary, senior, and market-rate housing at Fort Monmouth

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*Assessing the feasibility of using an **autonomous vehicle system** would **enhance community transit** offerings **where more system capacity is needed.***

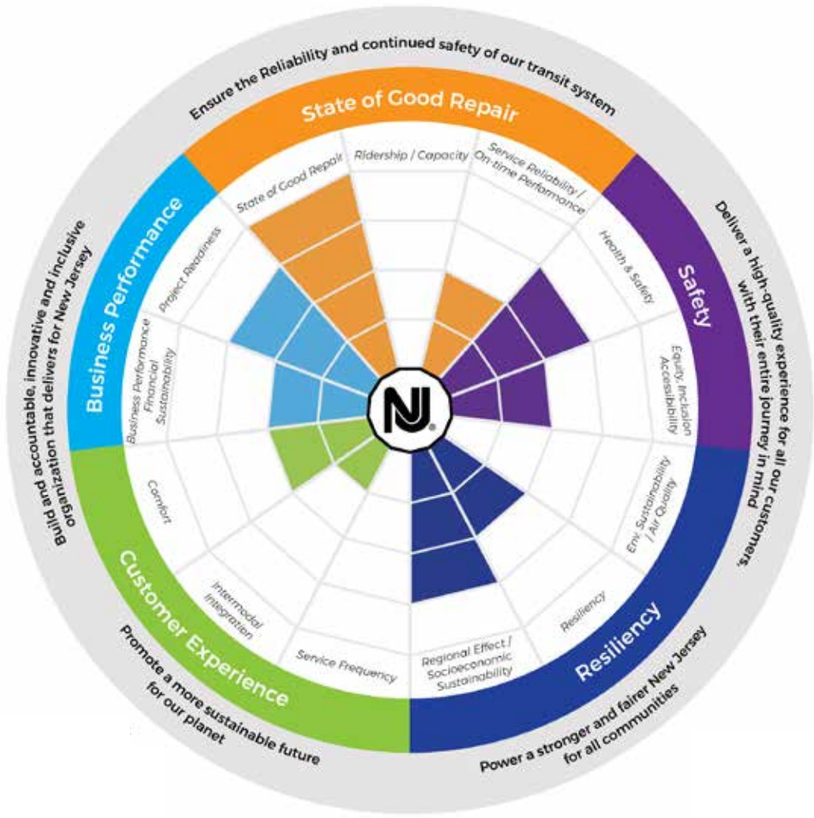
PROJECT SHEET | ENTERPRISE ASSET MANAGEMENT: FACILITY INSPECTIONS FY21 - FY23

Description

Moving Ahead for Progress in the 21st Century (MAP-21) requires NJ TRANSIT to report annually on the State of Good Repair (SGR) of capital assets, to the FTA National Transit Database (NTD). The FTA uses NTD data to apportion funding to transit agencies across the country. To receive funding from the FTA, NJ TRANSIT must report to the NTD in a compliant manner.

NJ TRANSIT has established a program for Facility Inspections that involves the physical inspections, the assessment of facility conditions, achieving and maintaining a State of Good Repair (SGR), and complying with the Federal Transit Administration (FTA) Transit Asset Management (TAM) Final Rule, issued July 26, 2016 for inspection of approximately 285 locations, that would enable more efficient and effective management of our facilities across all modes.

The NJ TRANSIT Facility Database Management System (FDMS) would support NJ TRANSIT enterprise asset management for the NTD reporting for the facilities asset category.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$9 Million

Value to State

- Improves knowledge of assets and accurate reporting
- Provides better justification of funding requests
- Enhances understanding of short and long-term funding needs

PROJECT SHEET ENTERPRISE ASSET MANAGEMENT: FACILITY INSPECTIONS FY21 - FY23

ESTIMATED TOTAL PROJECT COSTS

$9M

Health/Safety
The resulting state of good repair improvements would make NJ TRANSIT's entire networks safer for customers and employees

Service Reliability
Regular inspection and assessment of facilities would improve service reliability

State of Good Repair
Facility inspections and assessments would improve understanding of asset conditions and maintenance and capital needs

Regional Effect/Socioeconomic Sustainability
Facility inspections and assessments would provide NJ TRANSIT with the information to make facility improvements across the network

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Build an accountable, innovative, and inclusive organization that delivers for New Jersey

*Supporting the facility inspection program would **enhance state of good repair**, **support business performance**, and **improve customer experience and safety**.*

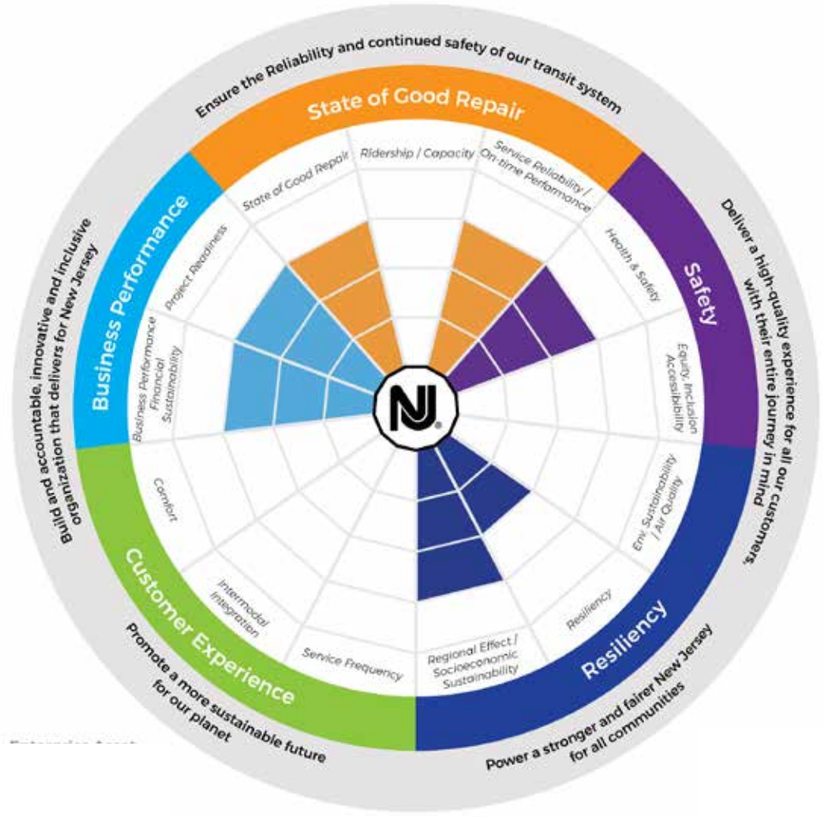
PROJECT SHEET | ENTERPRISE ASSET MANAGEMENT (EAM) PROJECT MANAGEMENT OFFICE (PMO)

Description

Moving Ahead for Progress in the 21st Century (MAP-21) requires transit agencies to develop an enterprise strategy for managing assets. Asset Management is fundamental for effectively maintaining NJ TRANSIT's $5.3 billion in assets, ensuring the system is in a State of Good Repair and providing the level of service that our customers demand.

NJ TRANSIT established the Enterprise Asset Management (EAM) Program Management Office (PMO) to lead and manage a program of change through the delivery of a range of projects that establish the vision and future state for asset management at NJ TRANSIT. The PMO's initial work involves establishing new processes and practices, establishing data standards, identifying the preferred approach for an Enterprise Asset Management System, and developing the analytical tools and investment prioritization procedures that would enable more efficient and effective management of our assets across all modes.

If funded, the work completed as part of the EAM PMO over the next several years would establish the first phase of improvement work, which, once implemented would result in the following goals being met.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$8 Million

Value to Customers

- Improves customer experience due to improved SOGR
- Allows better use of fare revenue toward customer-facing improvements

Value to State

- Improves knowledge of assets and accurate reporting
- Provides better justification of funding requests
- Enhances understanding of short and long-term funding needs

PROJECT SHEET ENTERPRISE ASSET MANAGEMENT (EAM) PROJECT MANAGEMENT OFFICE (PMO)

ESTIMATED TOTAL PROJECT COSTS

$8M

Health/Safety
The resulting state of good repair improvements would make NJ TRANSIT's entire networks safer for customers and employees

Service Reliability
Improved management of transit assets and better understanding of maintenance and capital needs would enhance service reliability

State of Good Repair
EAM PMO would enhance state of good repair by improving understanding of asset conditions and processes for identifying maintenance and capital needs

Business Performance/Financial Sustainability
EAM PMO would provide data and information to improve NJ TRANSIT's decision making process and understanding of future investment needs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Build an accountable, innovative, and inclusive organization that delivers for New Jersey

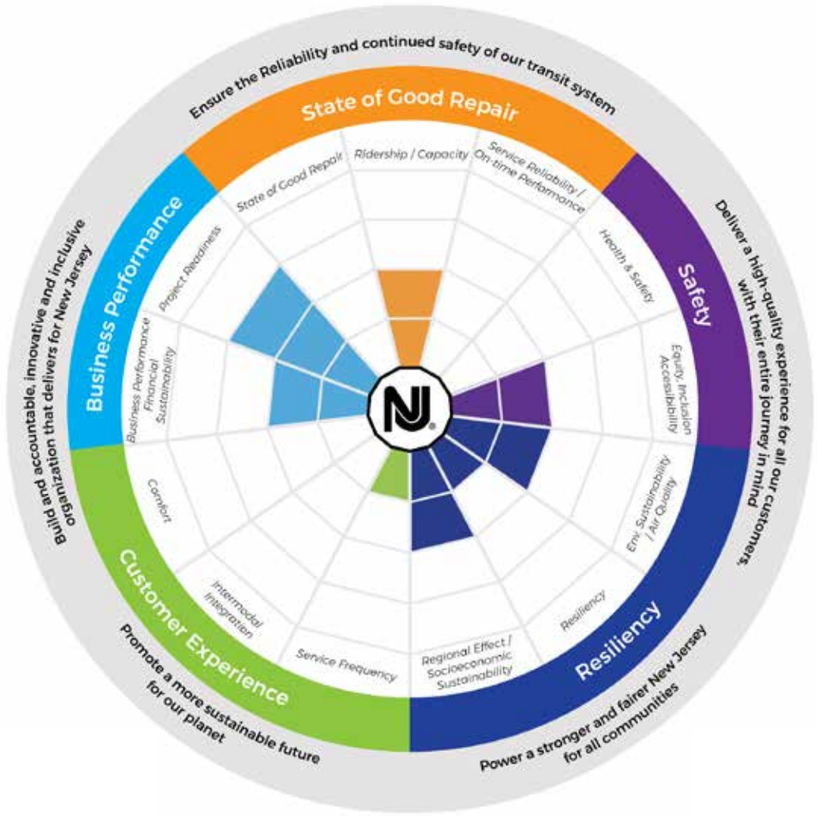
*Supporting the work of the EAM PMO would **enhance state of good repair**, **support business performance**, and **improve customer experience and safety**.*

PROJECT SHEET | UPDATED PLANNING STUDIES

Description

Over the years, NJ TRANSIT has conducted numerous studies in partnership with regional and local stakeholders to plan for expansions to New Jersey's multi-modal transit system. NJ TRANSIT recognizes the importance of expanding service to accommodate more customers and support emerging development patterns and economic vitality.

If funded, this project would propose updates to several past studies to determine their feasibility in the current environment and with the application of recent technological innovations.



ESTIMATED PROJECT COSTS (2020 DOLLARS):

$5 Million

Value to Customers

- Expands transit network to provide convenient options for more customers
- Creates new and faster transit connectivity to employment centers, educational institutions, medical centers, and other major trip attractors and generators throughout the State

Value to State

- A more economically competitive region with improved local growth opportunities.
- Creates a more efficient and environmentally sustainable transit network.
- Lessens congestion on local roads and major highways.

PROJECT SHEET | UPDATED PLANNING STUDIES

Study	Description
West Trenton Line Passenger Service Study	Determine the feasibility of restoring passenger service on the CSX-owned West Trenton Line to provide service between SEPTA's West Trenton Station in Ewing and NJ TRANSIT's Raritan Valley Line at Bridgewater. The service would provide a direct connection between West Trenton and Newark Penn Station. This project was last studied in 2007 when NJ TRANSIT published an Environmental Assessment. An updated study would assess the feasibility of using the CSX ROW for passenger service under current conditions, examine potential vehicle technologies, and determine initial conceptual designs.
Monmouth-Ocean-Middlesex Line Feasibility Study	Investigate extending NJ TRANSIT commuter rail service to better serve Monmouth, Ocean, and Middlesex Counties in Central New Jersey. A previous study in 2002 proposed various alignments connecting a southern terminus in Lakehurst with the North Jersey Coast or Northeast Corridor Lines in Middlesex County. An updated study would reassess these alignment options given recent development patterns and determine a preferred vehicle technology
New Brunswick Area Passenger Service Study	Build on previous studies examining light rail service in Middlesex County. The most recent study was completed in 2001, and proposed a light rail alignment following Route 18 and connecting Piscataway, New Brunswick, and East Brunswick. An updated study would evaluate alignments and propose additional modal alternatives beyond light rail, including BRT and autonomous rail or bus vehicles.
West Shore Line Passenger Service Restoration Study	Determine the feasibility of restoring passenger service to the West Shore Line, currently part of CSX's River Subdivision, to improve transit within Hudson, Bergen, and Passaic Counties in New Jersey and Rockland County in New York. Based on previous studies, passenger service along the West Shore Line would run between Hoboken and West Nyack, New York via the Secaucus Transfer and Meadowlands Sports Complex. This study would examine the previously proposed alignment, recommend new alignments to complement recent development patterns in Bergen County, examine potential vehicle technologies, and determine initial conceptual designs.
Newark-Elizabeth Passenger Service Study	Assess the alternatives for extending Newark Light Rail service to connect the downtown areas of Newark and Elizabeth with Newark Airport. The study would examine the previously proposed 8.8 mile light rail alignment and develop additional alignment and modal alternatives to reflect recent technological advances in autonomous vehicles.
River LINE to West Trenton Study	Assess a possible extension of the River LINE to connect to SEPTA's West Trenton Station in Ewing. This study would determine the feasibility and potential benefits of this extension given recent development trends.
Phillipsburg Extension Study	Examine extending the Raritan Valley Line to Phillipsburg to relieve congestion on Interstate 78 and Route 22. Last studied in 2010, an updated study would reassess the proposed rail extension and develop potential modal alternatives, including enhanced bus service or BRT.
New York, Susquehanna & Western (NYS&W) Line Passenger Service Study	Determine the feasibility of restoring passenger service on the NYS&W Line between Pompton Junction and Hawthorne. The study would examine the feasibility of using the NYS&W Line for passenger service, examine potential vehicle technologies, and determine initial conceptual designs.

PROJECT SHEET UPDATED PLANNING STUDIES

ESTIMATED TOTAL PROJECT COSTS

$5M

Project Readiness
Planning studies could be completed within two years and would be ready to begin quickly

Ridership/Capacity
Expanding the transportation network would increase the customer base and provide more convenient options to existing customers

Environmental Sustainability/Air Quality
An expanded transit network would reduce vehicle emissions and provide a more efficient, sustainable transportation option

Regional Effect/Socioeconomic Sustainability
Expanding the transit network throughout the State would provide better transit connectivity to key destinations

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Power a stronger and fairer New Jersey for all communities

Updating planning studies would lay the groundwork for NJ TRANSIT to ***expand service*** *and* ***better support economic vitality****.*

PROJECT SHEET | STATE OF GOOD REPAIR (SOGR) PROGRAM

Description

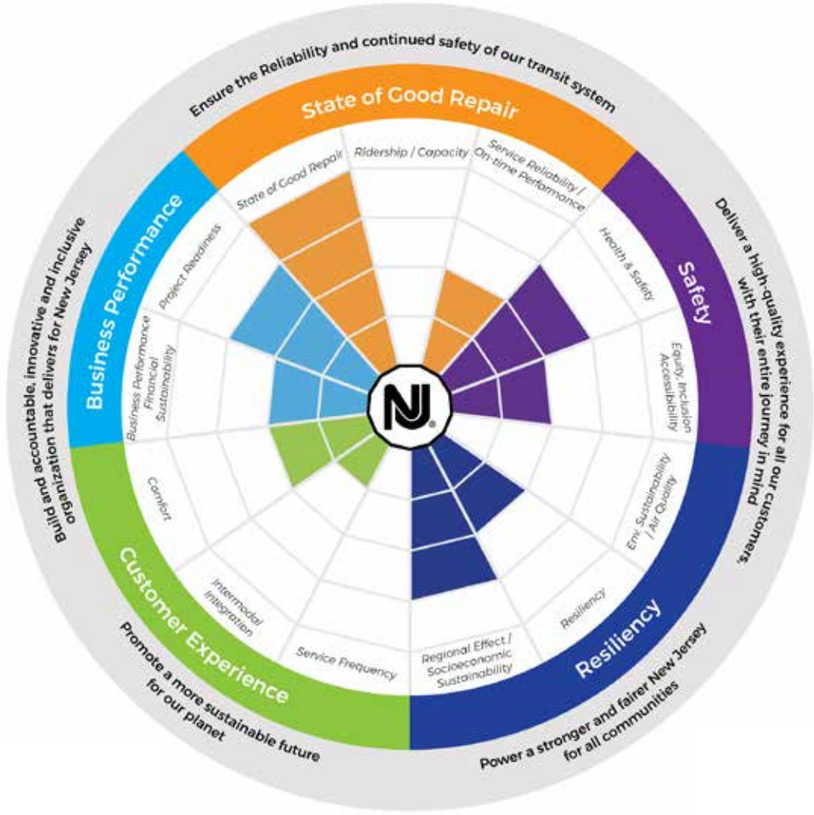
NJ TRANSIT operates over 200 commuter rail and light rail stations, bus park and rides and other facilities that our customers touch and use every day. In addition, there are dozens of facilities that service the infrastructure and fleet that our customers use every day that must be kept in a good state of repair to provide clean, reliable, on time service. Continuous improvements to keep and restore these facilities to a state of good repair are a critical part of ensuring these assets are preserved, and that customers enjoy a safe and comfortable interaction with the NJ TRANSIT system. NJ TRANSIT constantly performs conditions inspections for all NJ TRANSIT assets to assess their state of good repair across the entire facility inventory. This was done to both comply with Federal Transit Asset Management System (TAMS) requirements, but also to systematically inspect, categorize, and prioritize necessary work across the largest state-wide transportation system in the country. This ongoing process would be constantly updated as a standard business practice so that every asset in the system inventory would be re-inspected on a maximum three-year cycle.

To manage this geographically and numerically expansive number of facilities, the State of Good Repair Program has been created to rapidly address critical needs as they are identified by NJ TRANSIT's TAMS inspections, Operations group alerts, and customer complaints at the wide variety of NJ TRANSIT facilities. The program is intended to leverage an innovative Job Order Contracting (JOC) delivery tool to allow for rapidly deployed repair teams to effect treatments and repairs in days or hours instead of weeks or months to quickly make near term improvements to the state of good repair to public facing facilities.

In the State of Good Repair program, deficient conditions are prioritized and dispatched for prompt repair based on priority of need, as follows our strategic and capital needs where the safety of our customers and employees comes first, but also to be able to demonstrate a responsive and nimble organization that can quickly repair deficient facility assets that ensure continued and efficient operation of NJ TRANSIT service, and create a mechanism that offers rapid and constant improvement to the facilities our customers use every day. This effort is being treated as an ongoing Program and funding shown reflects a yearly investment that can be adjusted up or down dynamically to meet the needs of the system

ESTIMATED PROJECT COSTS (2020 DOLLARS):

$214 Million



Value to Customers

› Enhances comfort for customers at improved facilities.

Value to State

› Extends service life of facilities while improving state of good repair systemwide.

PROJECT SHEET STATE OF GOOD REPAIR (SOGR) PROGRAM

ESTIMATED TOTAL PROJECT COSTS

$214M

Health/Safety
Public facing facilities would be safer for customers as three types of inspections are done to review for any critical needs

Regional Effect/Socioeconomic Sustainability
NJ TRANSIT facilities across the transit system would benefit from this program

Service Reliability
Facilities that are maintained regularly would support expedited boarding and alightings which would allow for continued reliable service

State of Good Repair
This program would ensure that NJ TRANSIT public facing facilities would be in good condition and would rapidly address any critical needs

STRATEGIC GOALS MET

Deliver a high-quality experience for all our customers, with their entire journey in mind

Ensure the reliability and continued safety of our transit system

*This program would **rapidly address critical needs** identified by inspections, operations group alerts, and customer complaints **at NJ TRANSIT public facing facilities**.*

APPENDIX C
Narrative Appendix

[This Page Is Intentionally Left Blank]

NJ TRANSIT

A 5-Year Capital Plan

June 2020 | An Unconstrained Vision for NJ TRANSIT

I TABLE OF CONTENTS

EXECUTIVE SUMMARY

1 NJ TRANSIT'S VISION FOR NEW JERSEY'S FUTURE

1.1 A Vision for a Better ride - Investing in our bus network 1-6

2.2 A Vision for a Better Ride - Investing in our Rail Network 1-9

2.3 Investing for a Better Ride - Investing in our Light Rail Network 1-11

2.4 Investing for a Better Ride - Investing in our Access link Network 1-12

2.5 Investing in Your Trip - Investments That Build A Modern-Day, Customer-Oriented Network 1-14

2.6 Hoboken Terminal: A Linchpin in the Network 1-18

2.7 Why We Are Confident of This Vision 1-19

2 THE CAPITAL PLAN

2.1 Investing in Our Bus Network..... 2-3

2.2 Investing in Rail 2-20

2.3 Investing in Light Rail 2-38

2.4 Programmatics: Investing in a State of Good Repair 2-40

2.5 Investing in PARATRANSIT 2-41

2.6 Information Technology..... 2-43

2.7 Preparations for Pandemics 2-46

2.8 Transit-Oriented Development 2-47

2.9 NJ TRANSIT's Involvement in Large Regional Transportation Projects.. 2-48

2.10 Development of the Capital Plan..... 2-52

9505
128
BELLEVILLE
BIG TREE
NJ TRANSIT
CONGRATULATIONS
1996 1998
2000 2001 2002 2004
ROADEO WINNER
OWNED BY: SNC BARFIN 2
LEASED TO: NEW JERSEY TRANSIT CORPORATION
OPERATED BY: N.J. TRANSIT BUS OPERATIONS, INC.
US DOT - 074293
NJ DOT NO. 51324

EXECUTIVE SUMMARY

NJ TRANSIT is the largest state-wide transit system in the country, providing mobility to the residents of the nation's most densely populated state. In addition to delivering affordable, efficient access to jobs, schools, health care, stores, entertainment and other destinations for our customers (see Figure I-1), NJ TRANSIT creates health and environmental benefits for the entire State by reducing vehicle miles traveled by automobiles and associated air pollution. The future of NJ TRANSIT has been laid out in our 10-Year Strategic Plan, NJT2030.

NJT2030 STRATEGIC GOALS

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

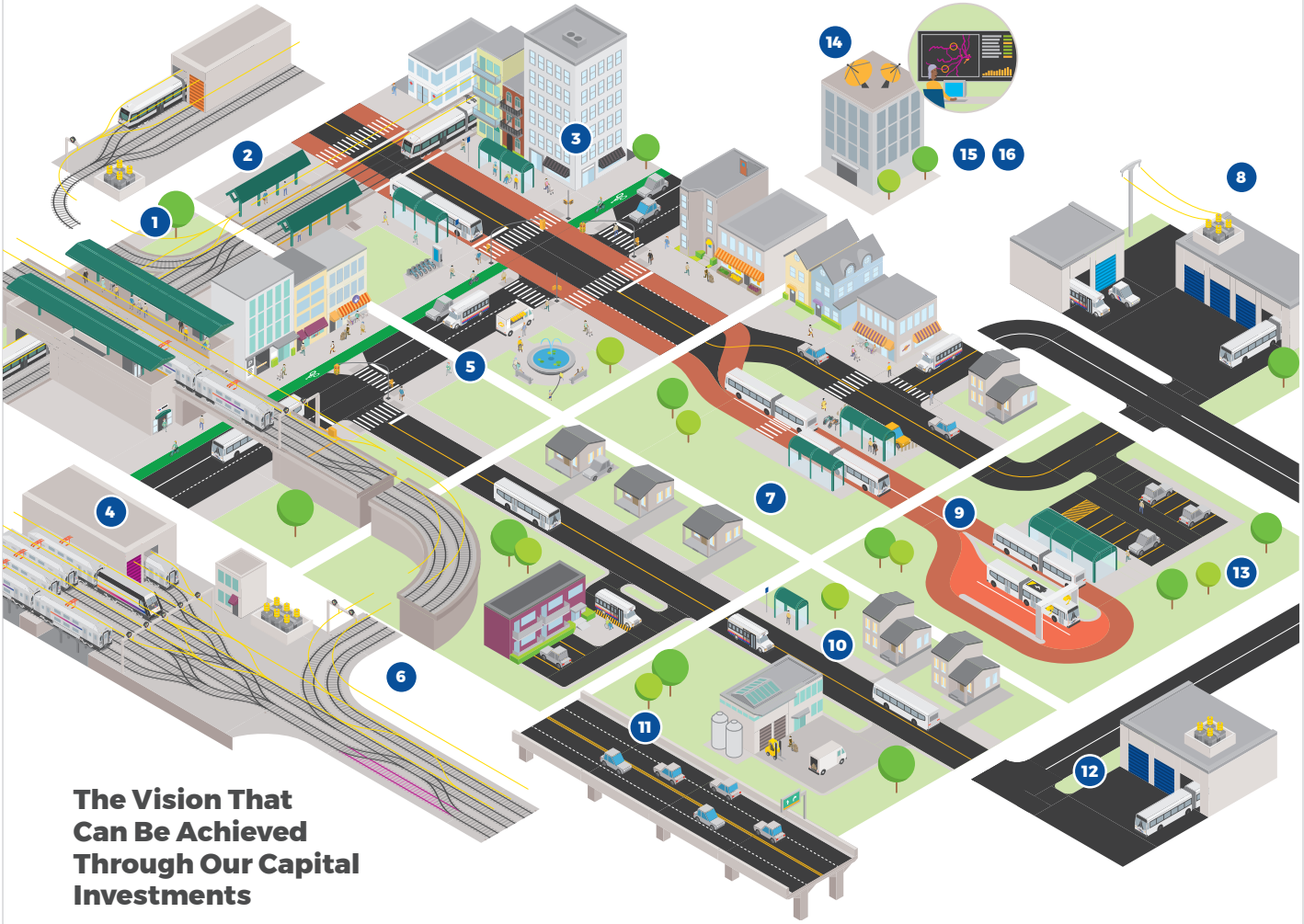
Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

The NJT2030 vision is dependent on infrastructure and equipment maintained to a state of good repair. If the transit system is not maintained in a state of good repair, the quality and reliability of service will suffer and directly impact our customers. With proper planning and investment, NJ TRANSIT's infrastructure and equipment can support improvements in operational business performance, enhance the customer experience, improve safety in operations, and make the system more resilient to extreme weather. Capital investment allows for a continuous state of good repair,and targeted expansion of the system and is essential for a safe and cost-effective transit system that performs to the level that our customers expect. Over a decade of disinvestment in these assets threatens current and future system reliability. Current capital funding levels leave NJ TRANSIT struggling to keep up with the growth of New Jersey, instead of leading the way as the engine of economic growth. Significant investment is required to restore the value of the capital assets, bring them back to a state of good repair, and advance initiatives that support the safety, customer experience, resilience, and sustainability goals of NJT2030.

FIGURE I-1: REGIONAL ECONOMIC CLUSTERS AND SERVICE AREAS

Source: American Community Survey
2017 5-year averages



The Vision That Can Be Achieved Through Our Capital Investments

1. Improve the transportation network's accessibility & usability for all.
2. A reliable light rail system improves local connectivity.
3. Less congested roadways in city centers facilitate pedestrian-focused communities that are healthier (less noise & air pollution), safer, and improve community development and economic competitiveness.
4. Expanded yard facilities allow for a larger, more modern fleet with higher carrying capacity to improve system reliability.
5. Integrated public transportation network reduces the need for additional parking and allows for mixed-use, pedestrian-friendly development.
6. The improved rail system is more flexible in responding to delays and system issues to provide a more reliable service.
7. Communities from the city to the suburbs to the rural regions are better connected and see improved travel times regardless if you drive, ride, bike, or walk.
8. Expanded bus garage facilities improves reliability, comfort, cleanliness, and reduce crowding of operations allowing for a more reliable and comfortable ride.
9. Explore opportunities for bus priority and bus transitways to reduce congestion on local roads and improve on-time performance.
10. Suburban communities are strengthened by stronger transportation networks and are competitive in attracting new residents to drive the local economy.
11. Improved rail network alleviates congestion on critical highways reducing strain on these arteries.
12. Modernization of our bus fleet, including the transition to larger articulated buses, improves carrying capacity and system reliability.
13. Suburban and exurban communities are provided additional links to major centers of economic activity, improving community development.
14. Innovative IT investments include improved mobile apps that provide you with access to timely information on a your mobile phone and allow you to purchase tickets, plan your trip, and interact with other transportation options without touching anything but your own device.
15. Upgrade asset management and business systems so that the agency can more efficiently address state of good repair concerns, reduce maintenance delays, expeditiously upgrade software systems, and increase resiliency by enabling staff to work remotely.
16. New IT systems that dispatch and monitor buses would allow for the deployment of emerging technologies that improve public health, such as zero-emission buses and contactless fare payment.

CAPITAL INVESTMENTS THAT ADVANCE NEW JERSEY

The Capital Plan is a comprehensive capital investment strategy that describes what NJ TRANSIT can achieve with sustained and dependable funding over an extended period. NJ TRANSIT embarked on the capital planning effort to identify, develop, and vet potential future capital projects targeted to achieve the vision and goals identified in NJT2030. By providing an unconstrained view of funding needs, the Capital Plan provides a path forward to a vastly improved customer experience and a future of healthy, inclusive, and sustainable communities throughout New Jersey.

As the State of New Jersey advances Governor Murphy's "Road Back" plan for recovery from the COVID-19 pandemic, investment in NJ TRANSIT's infrastructure will help power New Jersey's resurgence: creating new jobs and direct investment at a time when New Jersey needs it most.

IDENTIFYING, PRIORITIZING AND IMPLEMENTING A RANGE OF TRANSIT IMPROVEMENTS

NJ TRANSIT began the capital planning process by developing performance indicators that drive the evaluation and implementation of a package of infrastructure projects and programs supporting the NJT2030 strategic goals. The performance indicators translate the Strategic Plan's goals into metrics applicable to capital projects. The five performance indicators are:

State of Good Repair

Repair or rehabilitate facilities so that they can operate at a safe and efficient level of performance or modernize facilities to meet current industry standards.

Customer Experience

Provide customers with a positive transit experience by being responsive to their ever-changing needs and expectations.

Safety

Provide a safe environment for customers and employees by incorporating industry best practices for safety and security at transit facilities and on-board transit vehicles.

Resiliency

Ensure NJ TRANSIT is a dependable and resilient transportation network by investing in adaptable solutions for the evolving profile of natural and man-made risks and protecting existing infrastructure.

Business Performance

Ensure NJ TRANSIT's ability to provide service into the future by investing in opportunities to improve financial sustainability. These include real estate and value capture opportunities, reducing operating costs and increasing ridership revenue.

NJ TRANSIT marshalled its professional staff from all departments and transit modes to produce a needs assessment and a comprehensive list of projects and programs selected with the overall objective of enabling the transit system to meet the NJT2030 goals and deliver on these performance indicators. Each project and program was evaluated, and the results were summarized on project sheets that provide information for each project and program.

This Capital Plan is based not only on the specific merits of individual projects and programs, but on the: overall needs of the system (both existing and expanded), the value for the dollar invested in each project, how quickly projects can be delivered, and how the projects work together to produce the best value for the transit system, our customers, and the state as a whole.

With the understanding that it is not possible to construct all projects at once, NJ TRANSIT arrayed the projects and programs by expected expenditure per year. Projects that addressed the highest state-of-good-repair needs were given highest priority. More straightforward projects and those already in development, which could be enacted quickly and had demonstrated value in improving the performance and reliability of the transit system were identified and advanced in the plan.

This Capital Plan also describes a longer list of initiatives that NJ TRANSIT can deliver over the next 20 years if an appropriate level of capital funding can be sustained. Large-scale projects typically require more than five years to complete. The intent is to make this five-year plan the first of a series of regularly updated rolling five-year plans that build on the initial momentum and adapt over time to meet the evolving needs of New Jersey and to respond to changes in technology.

Long-term investment could enable NJ TRANSIT to stay ahead of the curve and meet future demand, as businesses and communities grow. This investment could allow NJ TRANSIT to deploy new technology to improve customer service, to operate more efficiently and to contribute to a more sustainable environment. The projects identified through this process are also critical to making the transit system resilient in the face of emerging threats, such as sea-level rise and climate change.

Bus

The Capital Plan calls for investments that would enable the bus network to meet the modern-day expectations of our customers. Bus riders would benefit from more reliable and cleaner rides due to new and modernized garages that can enable us to store and maintain enough buses to meet growing passenger demand. New buses, including zero-emission and articulated buses with more seats, would be cleaner and more energy efficient and would accommodate additional passengers. NJ TRANSIT will study new bus rapid transit systems that provide express service, using technology to minimize delays from congestion. New information technology could allow for more effective deployment of buses in response to real-time information on traffic congestion.

A signature project would be a major new bus garage and maintenance facility, which is critical to providing more reliable service, introducing zero-emission buses, and expanding capacity.

Rail

Rail improvements range from new multi-level rail cars accommodating more passengers per train, to rehabilitated stations providing universal access, and new and improved bridges, rail yards and interlockings, which are the invisible behind-the-scenes infrastructure critical to delivering on-time performance. Taken together, these improvements would remove bottlenecks and produce a more flexible rail network that is not vulnerable to disruptions in service.

A signature initiative of this Capital Plan is a comprehensive overhaul of Hoboken Terminal, including the supporting rail yard facilities and the lines servicing the station, to make the facility resilient in the face of storm surges and to enable the station to reach its full potential in relieving the crowding for commuters crossing the Hudson River to work.

Light Rail

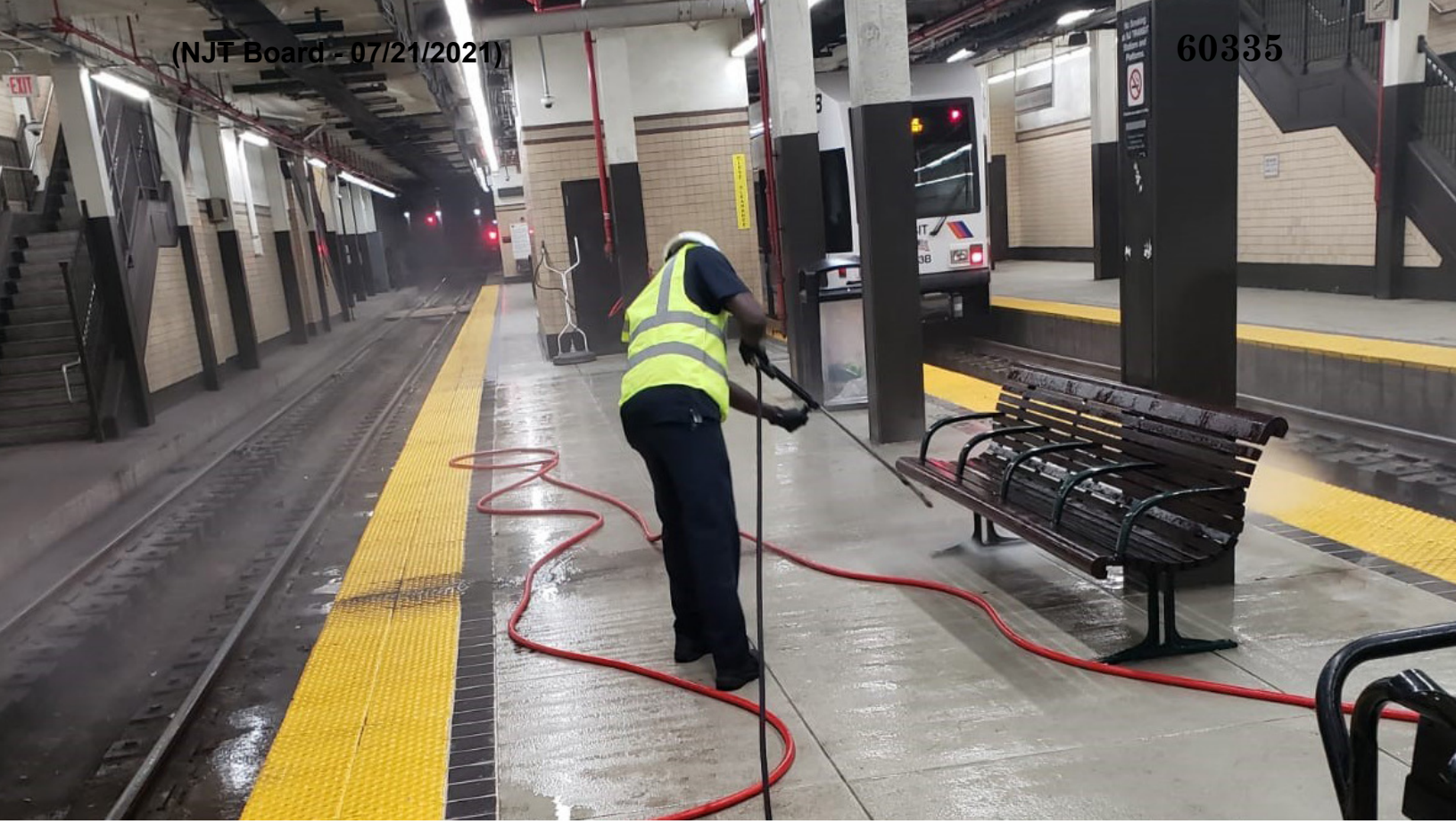
Light-rail systems would benefit from new vehicles, an overhaul of older vehicles, station improvements, and system expansion to provide service to areas with the potential for residential growth and job creation. There is emphasis on maintaining a clean reliable fleet.

Access Link

Access Link is our paratransit service for those with disabilities preventing them from accessing buses, trains and light-rail vehicles. In an effort to provide universal access to all State residents, the Capital Plan highlights opportunities to increase the size of the program to serve more customers by buying new vehicles, introducing new technology to better connect customers with rides, and acquiring new, larger facilities to house workers who dispatch the vehicles and to store and maintain the fleet.

Information Technology and Sustainability

Technology is the key to delivering more efficient and convenient transit service and moving the State forward. New technologies and innovations include zero-emission buses and the equipment to support them, software innovations that allow for the most efficient deployment of resources (such as bus dispatching, traffic signal timing controls, automation, remote diagnostics of mechanical issues, more frequent train service) and applications to directly address customer needs and provide more and better real-time information. These investments would focus on enhancing our systems' flexibility and adaptability.



Partnerships

NJ TRANSIT is committed to working with all its stakeholders, customers, elected officials, and advocates, to coordinate transit improvements. These team efforts produce more attractive and sustainable transit-oriented developments that reduce costs, congestion and pollution, and use innovative methods of financing. NJ TRANSIT plans to pursue more public-private partnership and joint development opportunities, building on the success of transit-oriented development in places such as Orange, Metuchen, Pleasantville and Rahway. The synergies resulting from these cooperative initiatives can generate sources of funding to sustain needed investment.

Pandemic Response

NJ TRANSIT is actively engaged in adapting its capital program to address the challenges posed by public health emergencies, such as the COVID-19 pandemic. These measures range from an evaluation of contactless fare payment to revisiting the way we design station interiors and vehicles to allow for passenger spacing and to facilitate more thorough cleaning of vehicles and other spaces.

THE CAPITAL PLAN BUILDS ON PROGRESS ALREADY IN MOTION

Since 2018, NJ TRANSIT has invested more in construction than it had in the preceding decade, creating thousands of construction jobs that reinvigorate communities, and building back up a system after over a decade of neglect.

Today, NJ TRANSIT is advancing over $2 billion in projects to prepare the agency to better withstand and recover from extreme weather events and to bring long neglected assets up to a state of good repair. Across the State, NJ TRANSIT is constructing new rail power substations, replacing power and signal cable, and rebuilding critical rail infrastructure. Superstorm Sandy resiliency work has quickly advanced and is drawing to a conclusion, including signal and power upgrades along the North Jersey Coast Line and at Hoboken Terminal. Construction work for the first contracts of both Long Slip Fill and Raritan River Bridge have been awarded. NJ TRANSIT has partnered with Public Service Electric & Gas to advance construction of a $232 million substation.

Development has already begun on the Innovation Challenge, which will leverage innovative technology and partnering approaches to deliver direct transit access from Secaucus Transfer to the Meadowlands sports, entertainment, and shopping complex.

Construction of the new ~$1.8 billion Portal North Bridge project is within reach, as NJ TRANSIT recently secured a medium-high rating from the Federal Transit Administration, moving the project closer to its next stage and a full funding grant agreement.

NJ TRANSIT is advancing Positive Train Control across its rail network. NJ TRANSIT reached a critical milestone in 2018, completing in a single year 88% of system-wide installations on vehicles and track. NJ TRANSIT entered the revenue service demonstration testing process this year and continues to move the project toward completion.

NJ TRANSIT is investing in equipment that will improve the customer experience. Some improvements are already visible. For example, NJ TRANSIT purchased 182 new cruiser buses last year, providing safer, quicker, and more comfortable rides to thousands of suburban commuters, and recently increased its fleet for the first time in more than a decade when it received delivery of new articulated buses, for use in primarily urban areas with dense populations and higher ridership. NJ TRANSIT is purchasing 113 next-generation multi-level rail cars. All of these fleet purchases will provide reliable, comfortable service with more customer amenities

Asset condition assessment and management are informing investment decisions. NJ TRANSIT is transitioning to a business model that uses transit asset condition to guide the optimal prioritization of funding, including:

- Completing condition assessments of all statewide, customer-facing stations and facilities;
- Preparing complete inventories and assessments of culverts, drainage structures, bridges, and other infrastructure;
- Creating and staffing an Enterprise Asset Management office to lead NJ TRANSIT's transition to a centralized, condition-focused system;
- Revising construction procurement terms to require that components are inventoried with useful life and other data when new projects are completed; and
- Launching a "State of Good Repair Program" to identify, track, and quickly respond to deteriorating conditions of our assets wherever they occur.

This Capital Plan is another step in NJ TRANSIT's transition away from addressing infrastructure needs on a reactive, ad hoc basis to a more comprehensive project identification and prioritization approach.

Time Destination Train Status Track
9:47 Port Jervis 45 Boarding 3
9:57 Spring Valley 1607 Pascack Valley 4
10:35 Ridgewood 1253 Bergen County 11
PLEASE NOTE TRACK CHANGE
10:36 Gladstone 415 Morris & Essex 16
10:38 Suffern 1111 Main 17
11:14 Spring Valley 1611 Pascack Valley 13
11:35 Ridgewood 1255 Bergen County 4
11:36 Gladstone 417 Morris & Essex 15
11:38 Suffern 1113 Main 9
WELCOME TO HOBOKEN TERMINAL. PLEA
"EWR" Indicates Train Service to Newark Int'l Airport Station
Time Destination
12:35 Ridgewood
12:36 Gladstone
12:38 Suffern
12:43 Spring Valley
1:13 Middletown NY
1:35 Waldwick
1:39 Gladstone
1:43 Suffern
1:50 Spring Valley
1:58 Dover
SE WATCH YOUR STEP.
"EWR" Indicates Train Service

1 NJ TRANSIT'S VISION FOR NEW JERSEY'S FUTURE

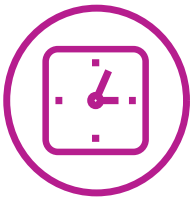
1 NJ TRANSIT'S VISION FOR NEW JERSEY'S FUTURE

OUR MISSION: Move New Jersey and the region by providing safe, reliable and affordable public transportation that connects people to their everyday lives, one trip at a time.

OUR VISION: NJ TRANSIT will be an innovative, world-class public transportation provider that meets the travel needs of every customer.

This Capital Plan builds on the vision set forth in the NJT2030 Strategic Plan. To become a world-class transit agency, significant investments would be needed so that NJ TRANSIT could become a truly integrated network of transportation assets. We innovate to improve every customers' quality of life, grow our economy, and protect our environment. We will deliver our vision one trip at a time, connecting people to where they need to go.

The following five goals of NJT2030 drive the agency's investments:



*Ensure the reliability and continued safety of our transit **system***

*Power a stronger and fairer New Jersey for all **communities** in the region*

*Deliver a high-quality experience for all our **customers**, with their entire journey in mind*

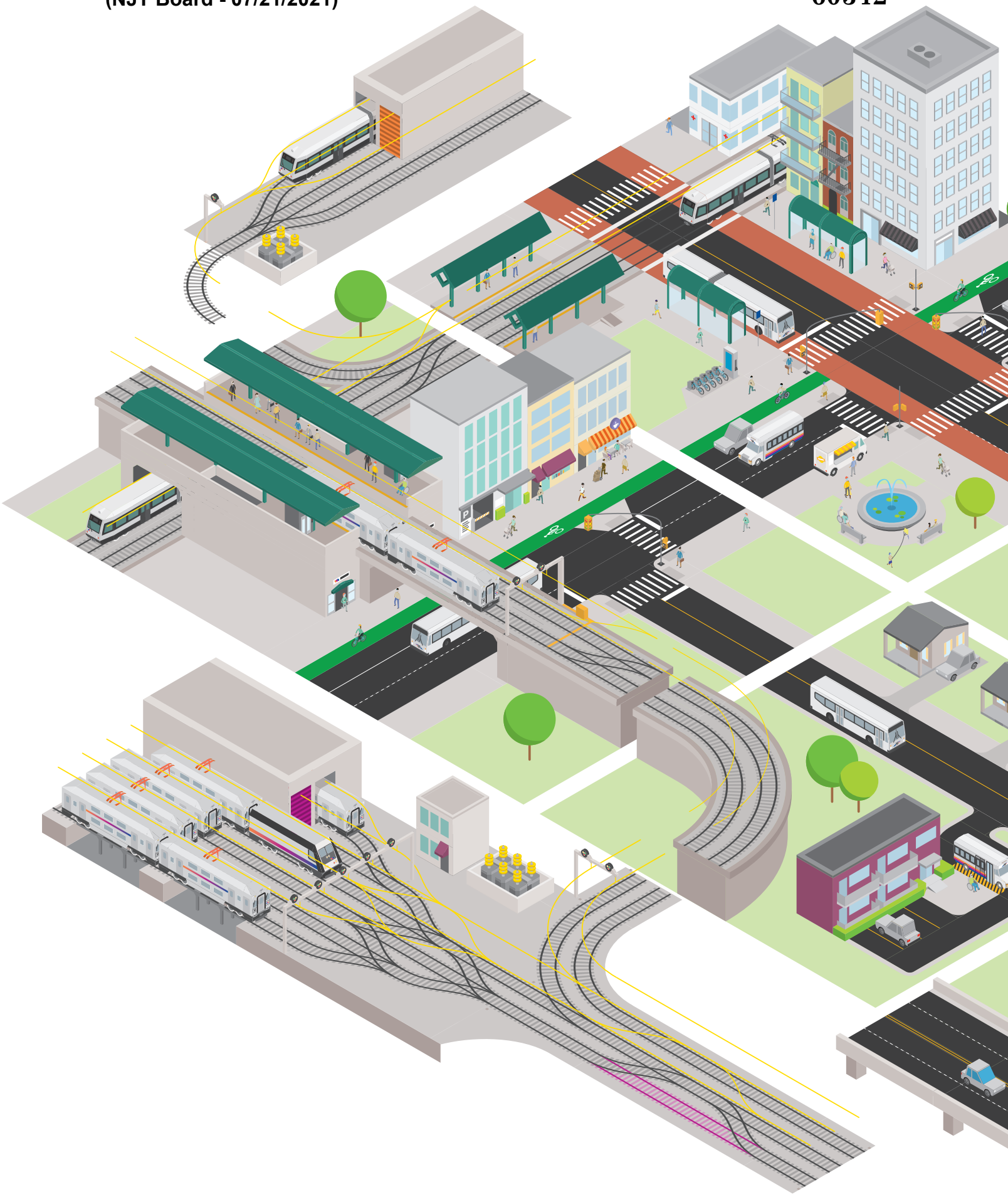
*Promote a more sustainable future for our **planet***

*Build an accountable, innovative and inclusive **organization** that delivers for New Jersey*

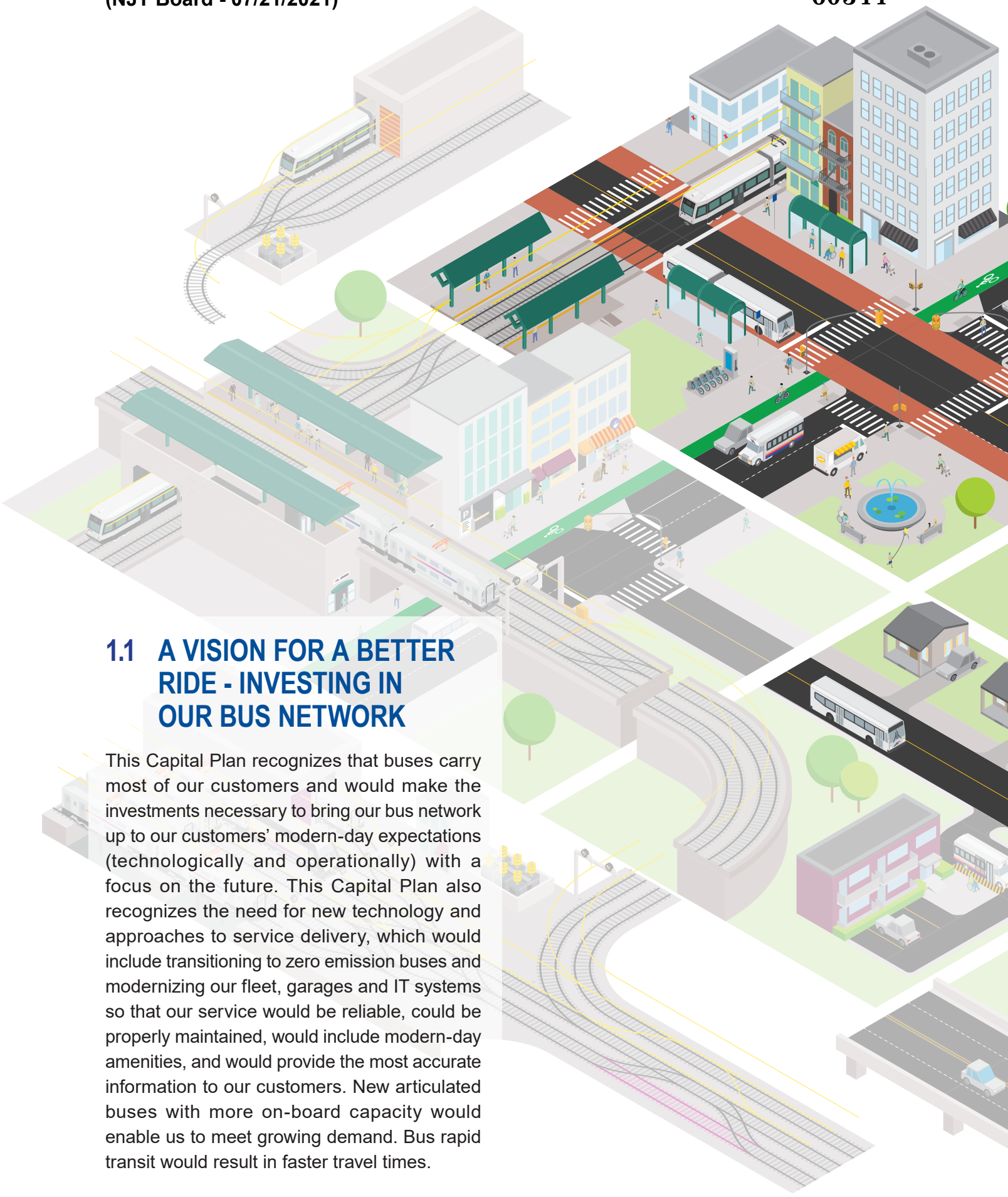
This Capital Plan utilizes these goals as a foundation and roadmap in developing and evaluating targeted capital investments. The proposed projects would enhance system reliability, improve customer experience, connect our communities, promote sustainability, and improve the effectiveness of our workforce. There is a focus to address concerns about equity and environmental justice.

The driving force behind our capital plan is to improve the lives of all New Jersey residents, not only for those who use the transit system, but also for those who benefit from reduced congestion, reduced travel times and enhanced environmental quality. This all begins by improving the experience of our customers, from the moment they start a trip to the time they arrive at their destinations. To deliver for the State, our transit investments must produce results immediately and in the long term, and our changes and progress must be realized over a large and diverse geographic area for all of our services—urban, suburban and exurban.

We are determined to make the most of and leverage the extensive transit system that is in place. Our rail assets are outdated. This Capital Plan would make the investments necessary to modernize and bring our rail fleet, infrastructure, stations and maintenance facilities to a state of good repair. This would mean upgrading and replacing infrastructure where it can no longer serve its intended function due to age, condition, limited capacity, or all of the above; buying new buses and rail cars to upgrade an aging fleet; fixing interlockings at critical train track junctions; replacing obsolete and deteriorated rail bridges; improving rail yards; and making train stations accessible to all. The fleet upgrade, in particular, would provide customers more seats per car, allow for longer train sets, and require much less maintenance. Together, these changes would immediately and significantly improve the reliability of the system, increase on-time performance, and allow us to provide better service to our customers.



The Vision That Can Be Achieved Through Our Capital Investments



1.1 A VISION FOR A BETTER RIDE - INVESTING IN OUR BUS NETWORK

This Capital Plan recognizes that buses carry most of our customers and would make the investments necessary to bring our bus network up to our customers' modern-day expectations (technologically and operationally) with a focus on the future. This Capital Plan also recognizes the need for new technology and approaches to service delivery, which would include transitioning to zero emission buses and modernizing our fleet, garages and IT systems so that our service would be reliable, could be properly maintained, would include modern-day amenities, and would provide the most accurate information to our customers. New articulated buses with more on-board capacity would enable us to meet growing demand. Bus rapid transit would result in faster travel times.

Equity

We intend to focus on improvements that address concerns about equity and environmental justice.

Operations

We intend to invest in better dispatching, monitoring, and arrival information so that you have the most accurate up-to-day information on when to expect the next bus.

Modernizing Garages for Zero Emission Fleet

We intend to Invest in modernizing garage facilities to maintain, store, clean, and dispatch a zero emission bus fleet, so that your rides are more reliable, and clean.

Bus Rapid Transit

We intend to explore Bus Rapid Transit Systems (BRT) and dedicated bus lanes to speed up your service and better connect you to major destinations.

Stations

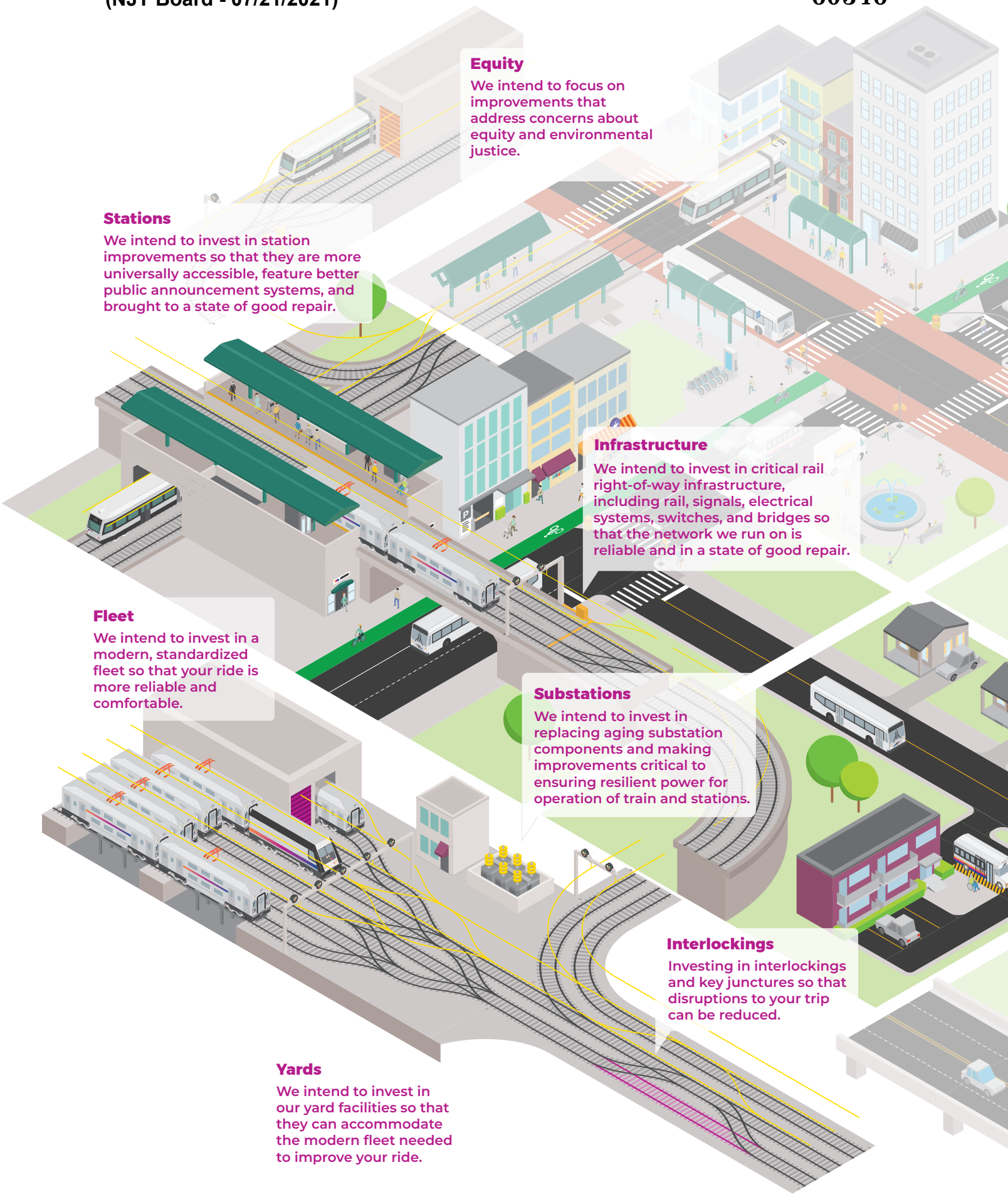
We intend to invest in stations with better protection from the elements and with public announcement systems that will tell you when to expect the next bus.

Zero Emission Buses

We intend to invest in zero emission buses, along with charging and maintenance infrastructure, to advance towards a zero emission bus fleet and meet goals for eliminating greenhouse gas emissions.

New Garages

We intend to invest in new garages so that we can expand our fleet and include more articulated buses that can carry more people.



Equity

We intend to focus on improvements that address concerns about equity and environmental justice.

Stations

We intend to invest in station improvements so that they are more universally accessible, feature better public announcement systems, and brought to a state of good repair.

Infrastructure

We intend to invest in critical rail right-of-way infrastructure, including rail, signals, electrical systems, switches, and bridges so that the network we run on is reliable and in a state of good repair.

Fleet

We intend to invest in a modern, standardized fleet so that your ride is more reliable and comfortable.

Substations

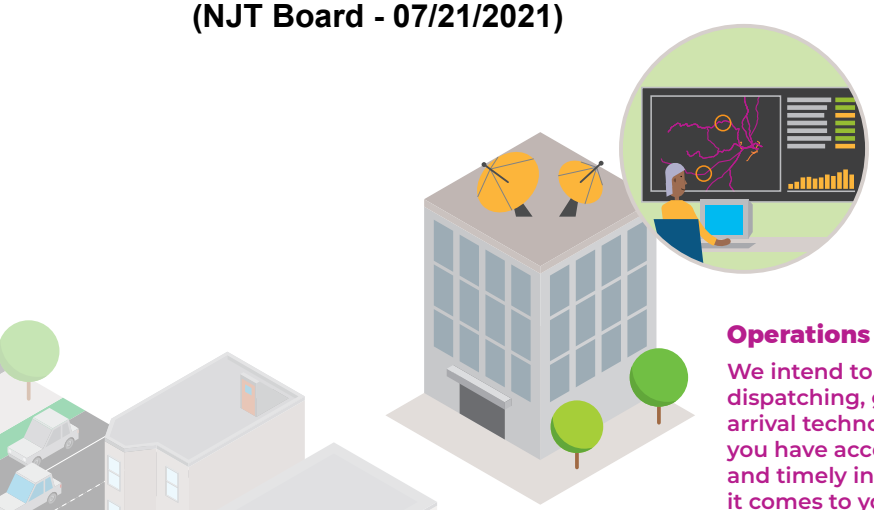
We intend to invest in replacing aging substation components and making improvements critical to ensuring resilient power for operation of train and stations.

Interlockings

Investing in interlockings and key junctures so that disruptions to your trip can be reduced.

Yards

We intend to invest in our yard facilities so that they can accommodate the modern fleet needed to improve your ride.



Operations

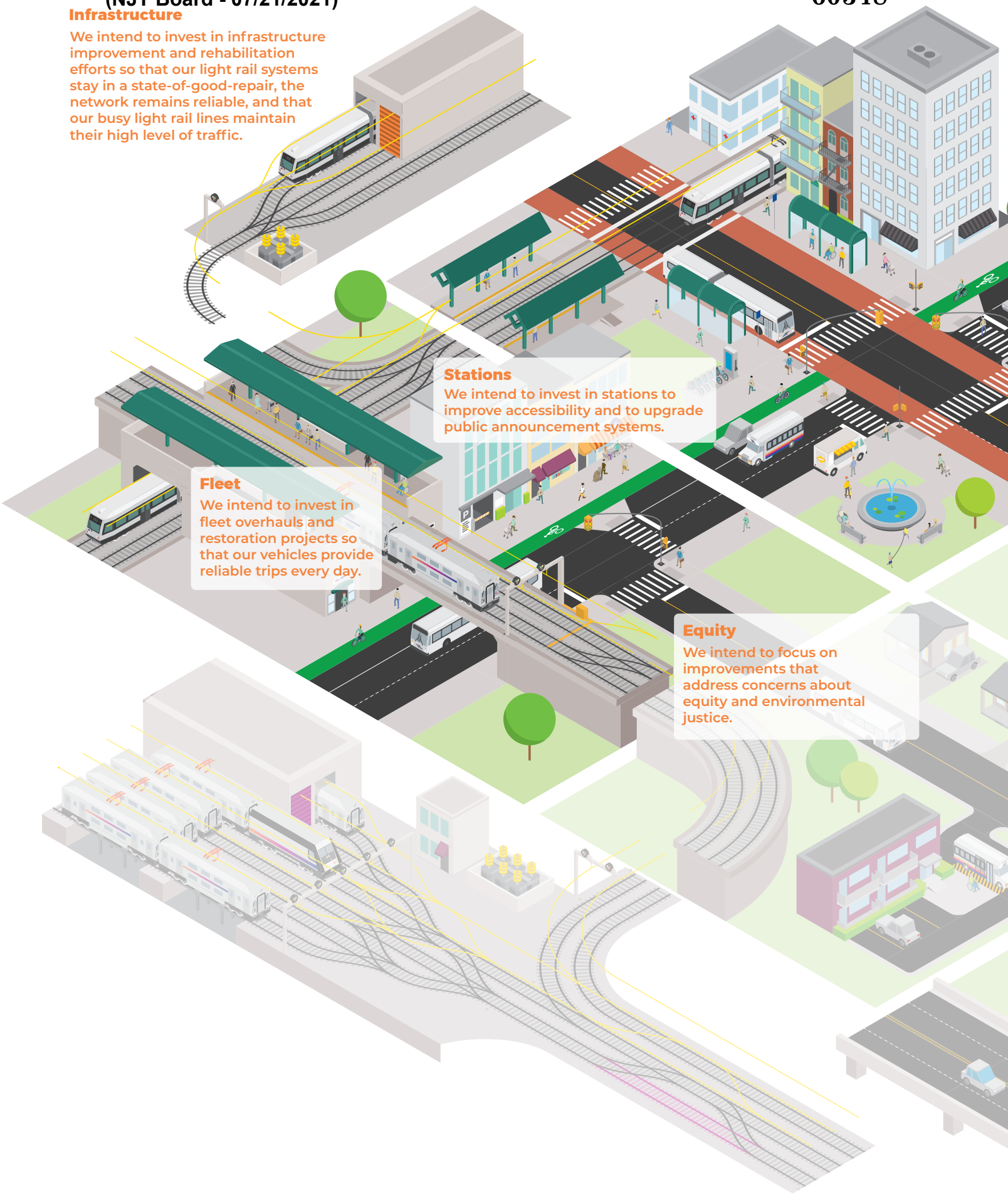
We intend to invest in better dispatching, geolocation, and arrival technologies so that you have access to accurate and timely information when it comes to your next train.

1.2 A VISION FOR A BETTER RIDE - INVESTING IN OUR RAIL NETWORK

Modern technology will maximize the value of these hard infrastructure and rolling stock investments. In combination, these investments will enable NJ TRANSIT to bring to our customers reliable and comfortable rides that make the connections needed to move around the State.

Infrastructure

We intend to invest in infrastructure improvement and rehabilitation efforts so that our light rail systems stay in a state-of-good-repair, the network remains reliable, and that our busy light rail lines maintain their high level of traffic.



Stations

We intend to invest in stations to improve accessibility and to upgrade public announcement systems.

Fleet

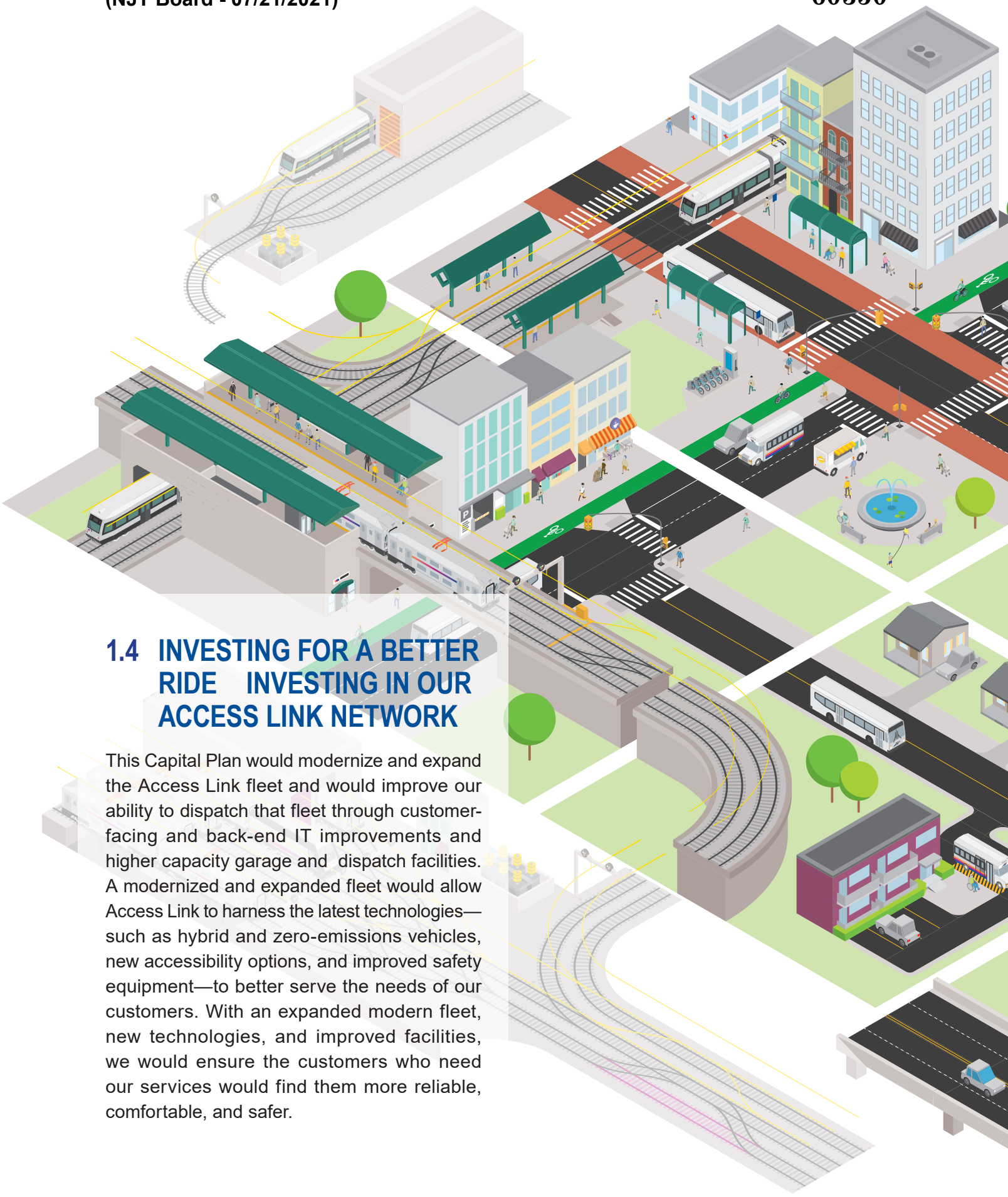
We intend to invest in fleet overhauls and restoration projects so that our vehicles provide reliable trips every day.

Equity

We intend to focus on improvements that address concerns about equity and environmental justice.

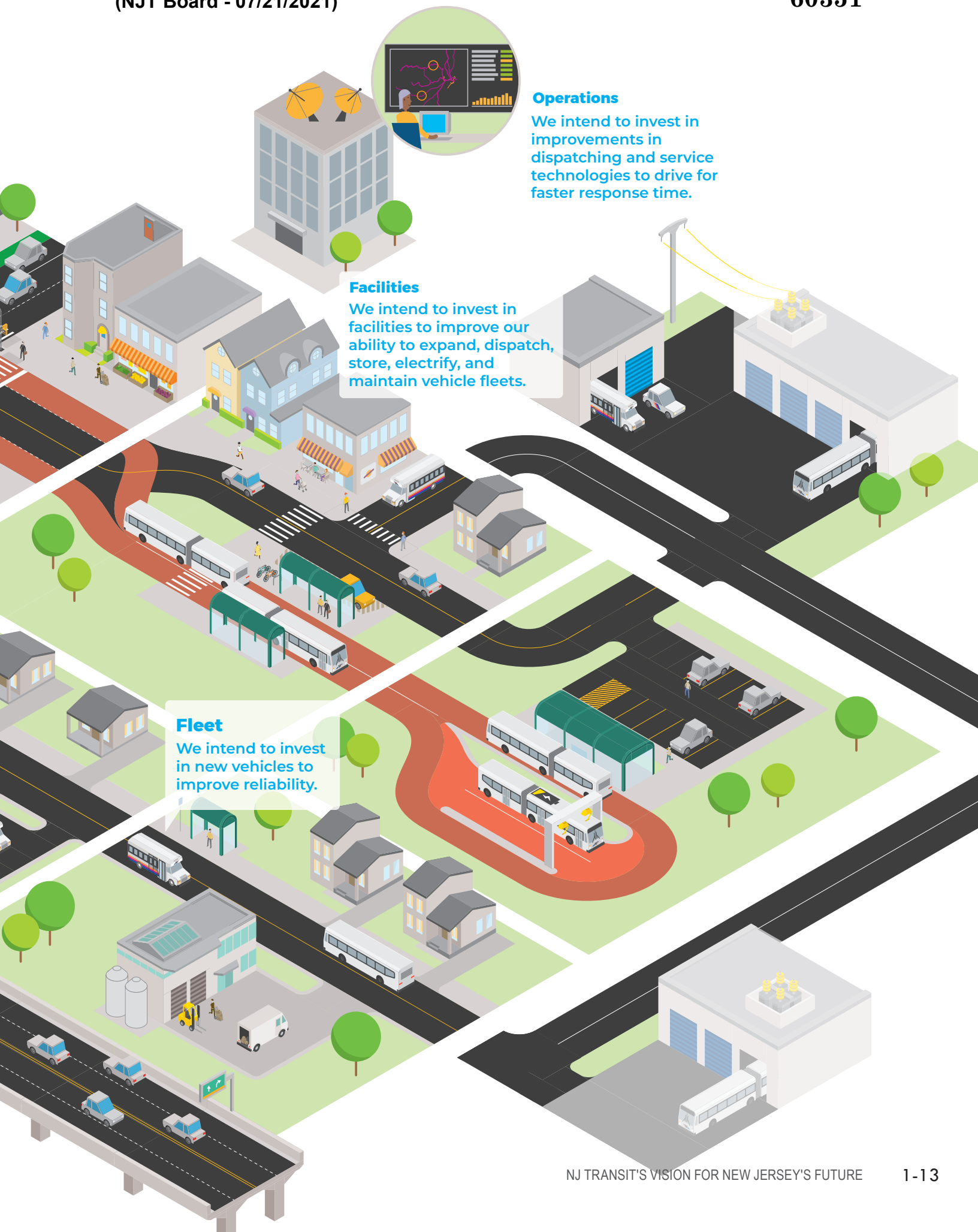
1.3 INVESTING FOR A BETTER RIDE - INVESTING IN OUR LIGHT RAIL NETWORK

This capital plan makes the necessary investments in the existing light rail network and also invests in network expansion. Improvements will be made to light rail fleets, station accessibility, maintenance facilities, track infrastructure, and bridges to ensure that our network is reliable, safe, and inclusive. Ensuring our light rail fleets are well maintained and the right of ways are kept in a state of good repair will allow for the system to continue to run with a high level of on-time-performance. Expansions to the light rail network along specific corridors will complement development patterns and accommodate projected ridership increases. Taken together, this means customers will arrive at their destinations in a comfortable and dependable fashion.



1.4 INVESTING FOR A BETTER RIDE INVESTING IN OUR ACCESS LINK NETWORK

This Capital Plan would modernize and expand the Access Link fleet and would improve our ability to dispatch that fleet through customer-facing and back-end IT improvements and higher capacity garage and dispatch facilities. A modernized and expanded fleet would allow Access Link to harness the latest technologies—such as hybrid and zero-emissions vehicles, new accessibility options, and improved safety equipment—to better serve the needs of our customers. With an expanded modern fleet, new technologies, and improved facilities, we would ensure the customers who need our services would find them more reliable, comfortable, and safer.


Operations
We intend to invest in improvements in dispatching and service technologies to drive for faster response time.
Facilities
We intend to invest in facilities to improve our ability to expand, dispatch, store, electrify, and maintain vehicle fleets.
Fleet
We intend to invest in new vehicles to improve reliability.

1.5 INVESTING IN YOUR TRIP – INVESTMENTS THAT BUILD A MODERN-DAY, CUSTOMER-ORIENTED NETWORK

INVESTMENTS THAT SUPPORT A CUSTOMER-ORIENTED NETWORK

By making these improvements to our public transportation network for bus, rail, light rail, and paratransit, we can ensure our diverse array of customers and the communities they live in will enjoy trips and rides that get them where they need to go, when they need to go, hassle free. Our vision is to improve fleet reliability, comfort and amenities across all modes and to ensure our staff are provided with the facilities, technologies and equipment necessary to maintain, dispatch, and clean our fleet so that it remains reliable and comfortable for future customers.

INVESTMENTS THAT DRIVE SUSTAINABILITY, ECONOMIC GROWTH AND RESILIENCY

As part of the Capital Plan process, NJ TRANSIT has identified investments that drive the sustainability, economic growth and resiliency of communities and the State. For example, by investing in zero-emission bus technologies, NJ TRANSIT intends to become a leader in achieving the State's goals to combat climate change. NJ TRANSIT will make New Jersey's extensive transport network more seamless and inclusive.

By enhancing existing and establishing new connections for residents who use different combinations of sidewalks, cars, buses, and rail during their daily lives, we could expand the reach and ridership of the transit system. This would help drive growth today and in the future. In many situations, strategic investment in the bus system would be the fastest and most cost-effective way to meet already pent up demand. NJ TRANSIT also intends to deliver projects that would position it for future capacity and service expansions so that it can become a robust partner in the economic growth of New Jersey's communities. Finally, by investing in resiliency, NJ TRANSIT intends to be a reliable "quick to respond" transportation network so that it can help communities cope with the future challenges of climate change.

INVESTMENTS THAT WOULD ENABLE NJ TRANSIT TO INNOVATE FOR THE FUTURE

We need to make efficient investments that would have a lasting impact on the environment today and in the future. This would involve taking advantage of new technology that is flexible and adaptable, and making sure that our actions would produce infrastructure that could withstand climate and sea leave changes. New technologies and innovations include zero-emission buses and the equipment to support them, software innovations that allow for the most efficient deployment of resources (such as bus dispatching, traffic signal timing controls, automation, remote diagnostics of mechanical issues, more frequent train service) and applications to directly address customer needs and provide more and better real time information. Investing in innovation would save money, improve safety, enhance air quality, and result in better service.

This Capital Plan would deliver investments that would allow NJ TRANSIT to test and calibrate emerging automation technologies for future adoption, improve the accuracy of arrival and departure information, and provide our dispatchers and maintenance personnel with new fleet management systems to enable better dispatching and service management and maintenance practices. These capital investments would target needed technology adaptations to provide modern and efficient service and to position us for future technological investments that would improve customer experience.

Our vision is a future where NJ TRANSIT enhances the well-being of all of New Jersey's residents. This Capital Plan would drive the transformation of our system into a people-centric, accessible public transportation network that would provide reliable multi-modal service every day. With the necessary funding, this Capital Plan would bring NJ TRANSIT closer to becoming a pillar of community growth and would improve customer livelihood by providing innovative, modern, and reliable service—one trip at a time. Adequate funding would enable NJ TRANSIT to once again lead and drive growth in an integrated and sustainable manner. We would continue to explore innovative approaches to financing that would promote the mix of public and private sources. Without funding, service can only follow growth, which would lead to inefficient and costly investment that would lack the level of connectivity and reliability customers deserve.

We intend to focus on improvements that address concerns about equity and environmental justice. A larger cleaner bus fleet, together with new and upgraded garages and maintenance facilities, provide the tools to address these priorities. Accessibility improvements will improve rail station access, and an improved Access Link system, with more capacity and resources, will broaden the reach of transit service.

Customer Oriented Network

We intend to improve stations and access points to our transportation network so that it is more inclusive and accessible.

We intend to improve stations for rail, bus, and LRT so that our network is more accessible for you and everyone, PA systems upgraded and provide accurate information and transfers at intermodal facilities are more seamless.

We intend to make right-of-way improvements so that we can make improvements to the reliability, speed, or comfort of your ride.

We intend to replace and modernize our fleets so that your trip is more reliable and comfortable.

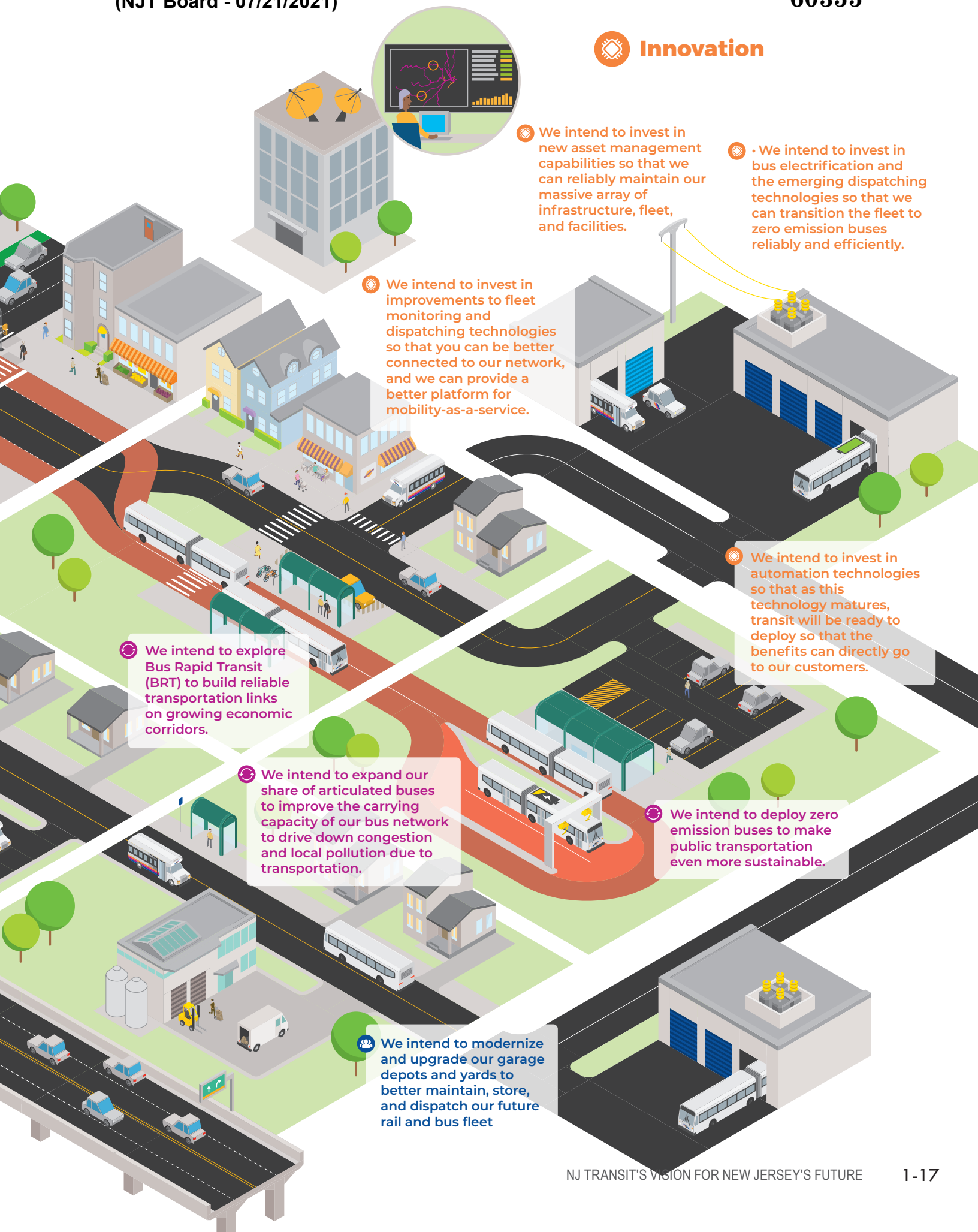
We intend to expand our bus and rail fleet carrying capacity so that there is more room for you on your ride.

Inclusive, sustainable, and resilient

We intend to make targeted investments in our rail network to improve capacity and reliability so that it is best designed to manage future growth and is part of a strategic vision for Gateway so that as we wait for this critical project to advance, we still seek opportunities to improve rail service.

We will focus investments on projects that address equity and advance environmental justice.

Innovation



We intend to invest in new asset management capabilities so that we can reliably maintain our massive array of infrastructure, fleet, and facilities.

• We intend to invest in bus electrification and the emerging dispatching technologies so that we can transition the fleet to zero emission buses reliably and efficiently.

We intend to invest in improvements to fleet monitoring and dispatching technologies so that you can be better connected to our network, and we can provide a better platform for mobility-as-a-service.

We intend to invest in automation technologies so that as this technology matures, transit will be ready to deploy so that the benefits can directly go to our customers.

We intend to explore Bus Rapid Transit (BRT) to build reliable transportation links on growing economic corridors.

We intend to expand our share of articulated buses to improve the carrying capacity of our bus network to drive down congestion and local pollution due to transportation.

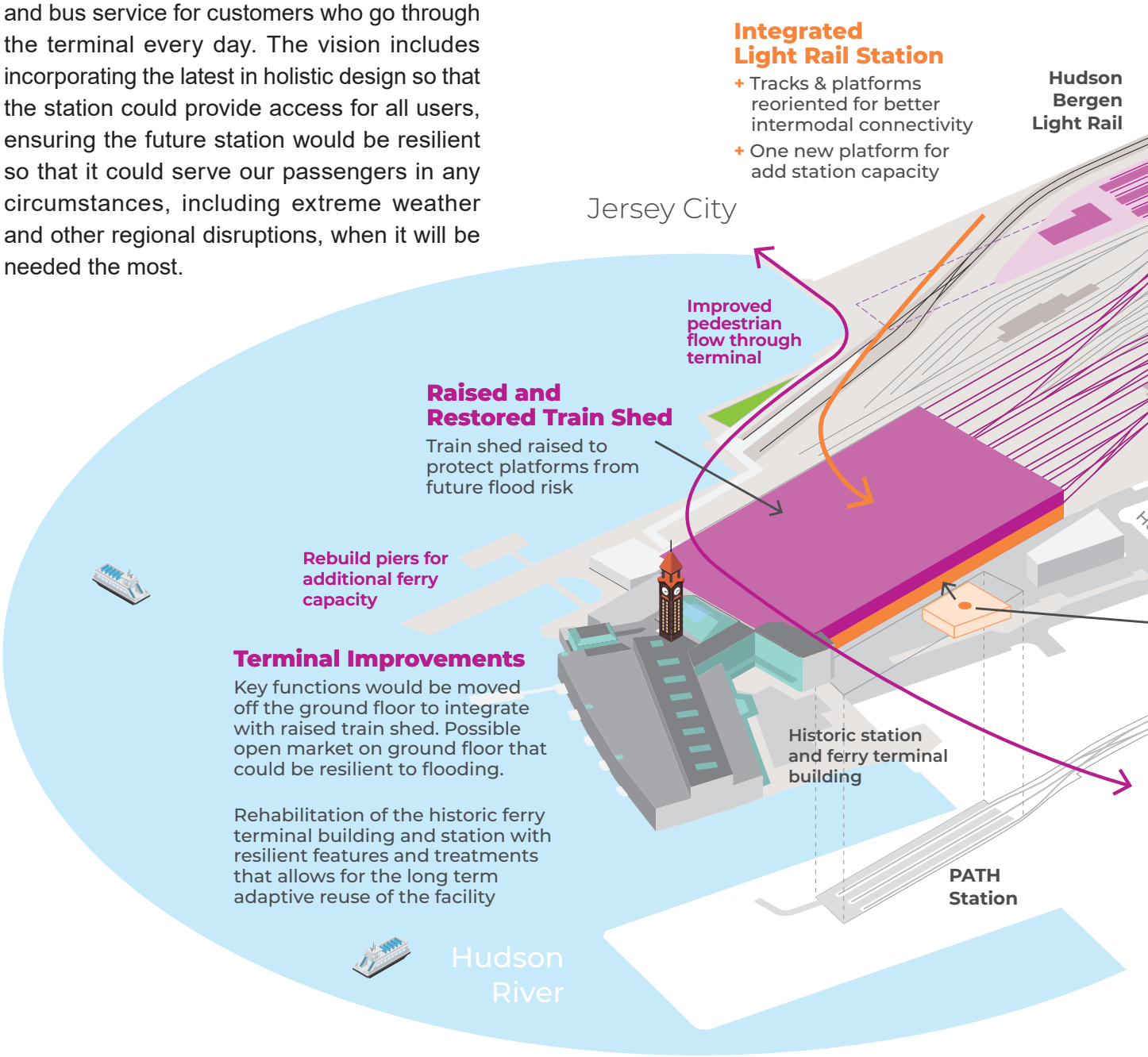
We intend to deploy zero emission buses to make public transportation even more sustainable.

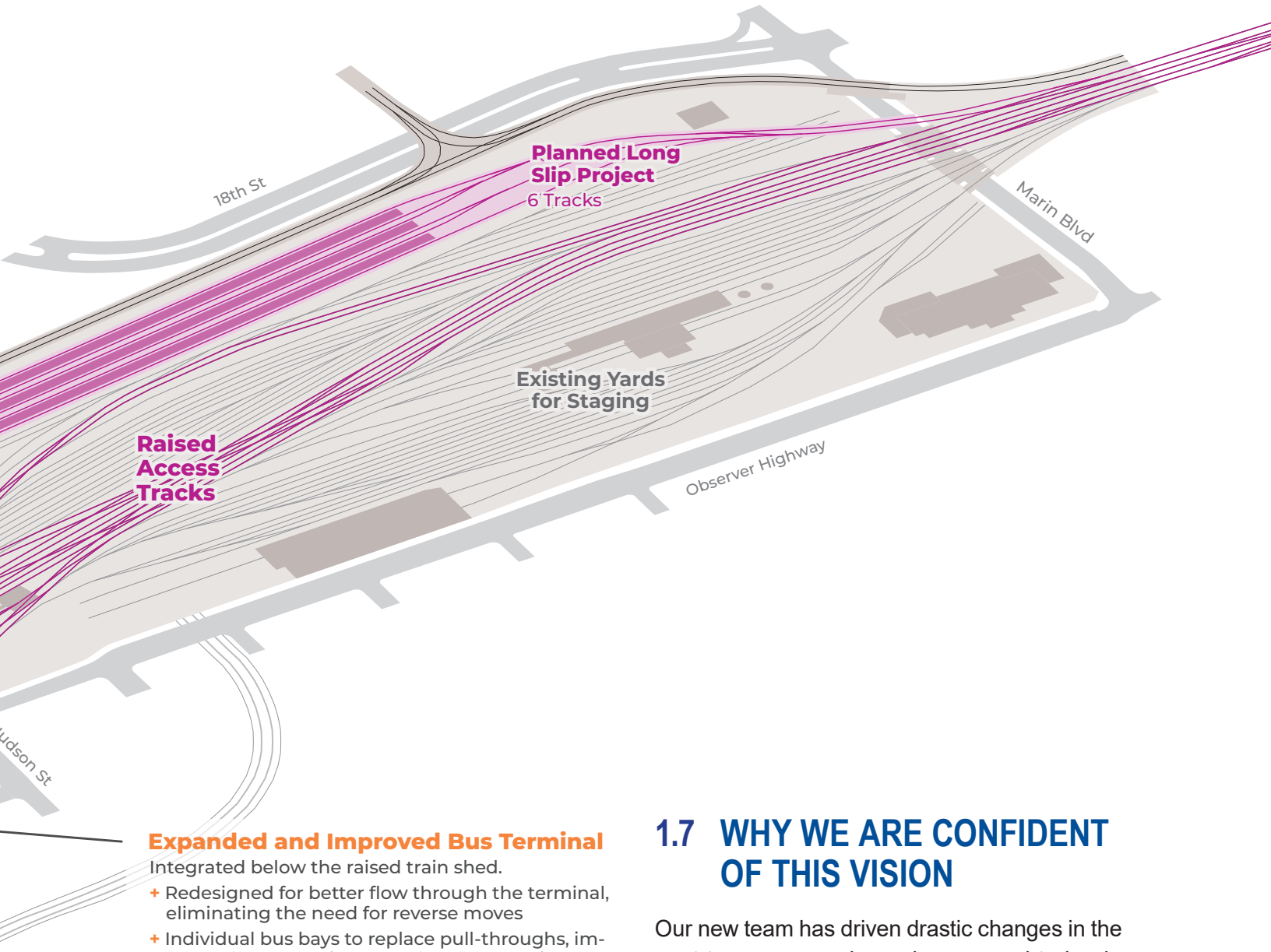
We intend to modernize and upgrade our garage depots and yards to better maintain, store, and dispatch our future rail and bus fleet

1.6 HOBOKEN TERMINAL: A LINCHPIN IN THE NETWORK

This Capital Plan's vision for the historical Hoboken Terminal's role as a critical trans-Hudson link between communities in New Jersey and the job centers of New York City is a prime example of an opportunity to make a comprehensive multifaceted investment that could improve every aspect of our transportation network, including light rail, commuter rail, ferry, and bus service for customers who go through the terminal every day. The vision includes incorporating the latest in holistic design so that the station could provide access for all users, ensuring the future station would be resilient so that it could serve our passengers in any circumstances, including extreme weather and other regional disruptions, when it will be needed the most.

The design would address the ability to seamlessly function during major events and reduce minor disruptions in an age where climate change would make weather events more extreme, frequent, and disruptive.





Expanded and Improved Bus Terminal

Integrated below the raised train shed.

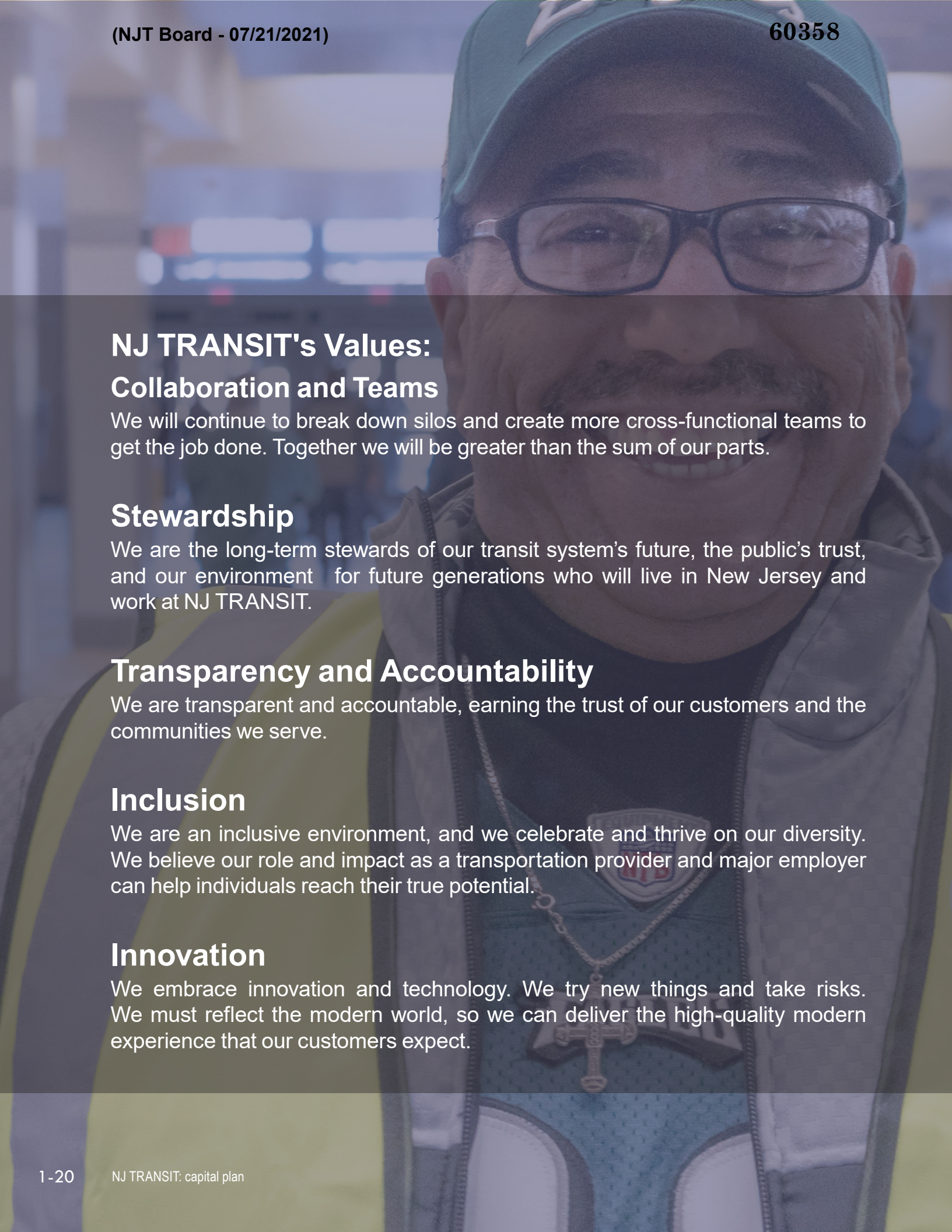
+ Redesigned for better flow through the terminal, eliminating the need for reverse moves
+ Individual bus bays to replace pull-throughs, improves bus operations & makes gates easier to locate for customers

Hoboken

1.7 WHY WE ARE CONFIDENT OF THIS VISION

Our new team has driven drastic changes in the past two years and now is prepared to begin to drive the capital investments necessary to change the transportation paradigm throughout the state.

We've established our mission and values that exemplify our desire to become a world-class public transportation agency.



NJ TRANSIT's Values:

Collaboration and Teams

We will continue to break down silos and create more cross-functional teams to get the job done. Together we will be greater than the sum of our parts.

Stewardship

We are the long-term stewards of our transit system's future, the public's trust, and our environment for future generations who will live in New Jersey and work at NJ TRANSIT.

Transparency and Accountability

We are transparent and accountable, earning the trust of our customers and the communities we serve.

Inclusion

We are an inclusive environment, and we celebrate and thrive on our diversity. We believe our role and impact as a transportation provider and major employer can help individuals reach their true potential.

Innovation

We embrace innovation and technology. We try new things and take risks. We must reflect the modern world, so we can deliver the high-quality modern experience that our customers expect.

2 THE CAPITAL PLAN

NJT Board - 07/21/2021 60360

2 THE CAPITAL PLAN

This Capital Plan is a comprehensive and prioritized list of investments that address current and future needs, ultimately addressing and realizing the goals of the Strategic Plan. The Plan lays out the capital investments in infrastructure, technologies, and fleet necessary to create a vision of a world-class public transportation network. It includes significant investments that would need to begin in the 5-year time frame and provides a road map for future investments that NJ TRANSIT has identified over the next 20 years

This chapter lays out the method by which capital investments would improve the bus network, rail network, light rail network, paratransit service, would establish strong programmatics, would provide improved information technology services, and would support transit-oriented development. This chapter also profiles the regional projects in which NJ TRANSIT is involved, and describes the development of this Capital Plan. In closing, this chapter outlines how NJ TRANSIT would deliver projects.

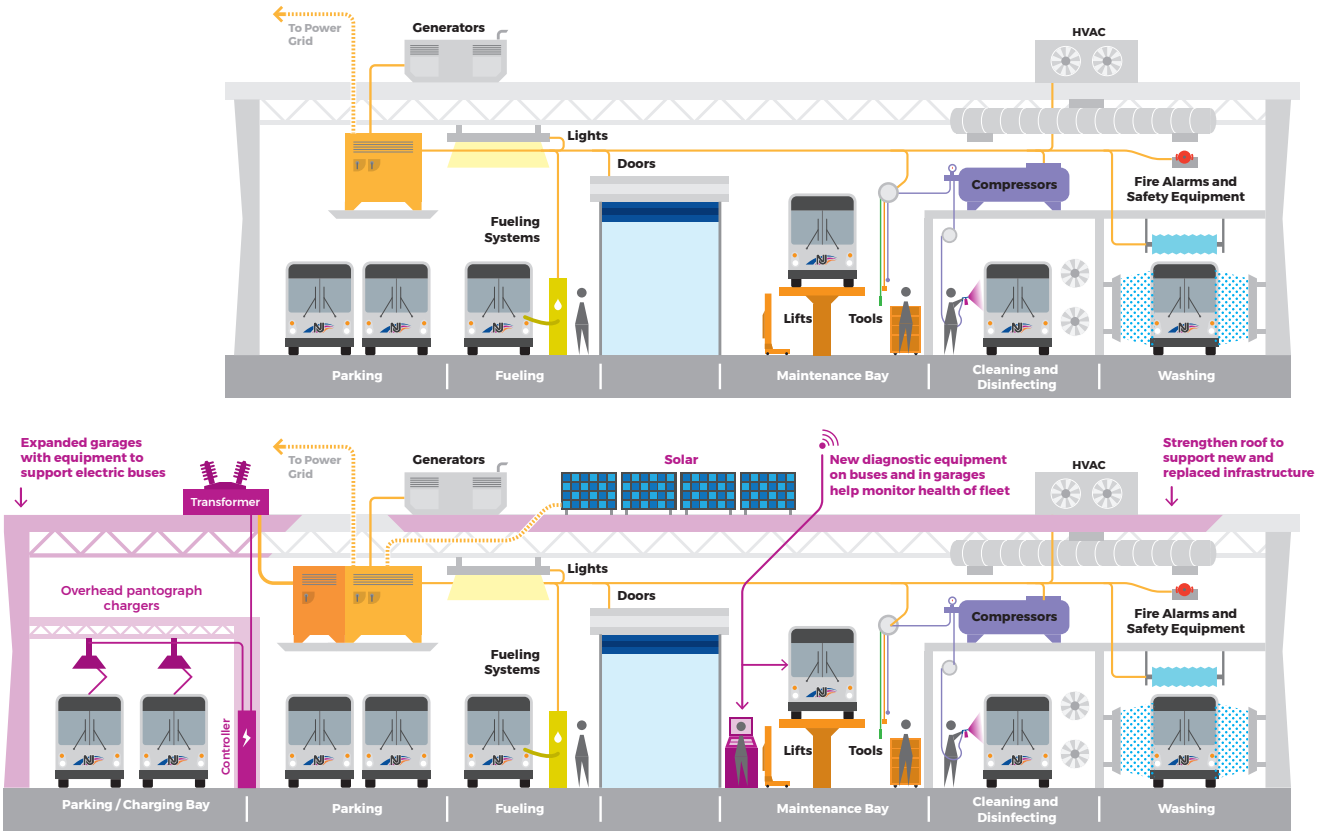
2.1 INVESTING IN OUR BUS NETWORK

Buses are the most flexible and often the most cost-effective way to expand transit services. In New Jersey, they provide service over the largest geographic area because they are not limited by the extent of fixed tracks. Modifying or expanding bus service is often the most rapid way to support the economic growth of newly developed residential communities or commercial centers. This also assists in supporting demographic and economic growth in existing localities, building out new transportation corridors, and supporting state responses to natural disasters.

We are also looking to modernize our systems and facilities so that we can operate a modern fleet and public facilities that meet our customers' modern day expectations. Most modernization involves investing in new technologies and infrastructure to prepare for electrification so that our fleet can become even more sustainable and lead in the fight against climate change.

A larger bus fleet and cleaner, electrified buses, together with new and upgraded garages and maintenance facilities, will provide the tools to address concerns about equity in service delivery and advance environmental justice by meeting the needs of underserved communities, communities that suffer the effects of air pollution and individuals who have not had full access to the transit system. Improving and expanding bus service to meet demand and prepare for a zero-emissions fleet would involve more than simply buying more buses. Investments in bus service would focus on rehabilitating, expanding, and replacing critical system components such as charging stations and electrical service upgrades to enable more reliable and efficient delivery of service to our customers. This would make for a safer, cleaner, faster, and more comfortable trip experience.

FIGURE 2-2: BUS GARAGE MODERNIZATION - BEFORE AND AFTER



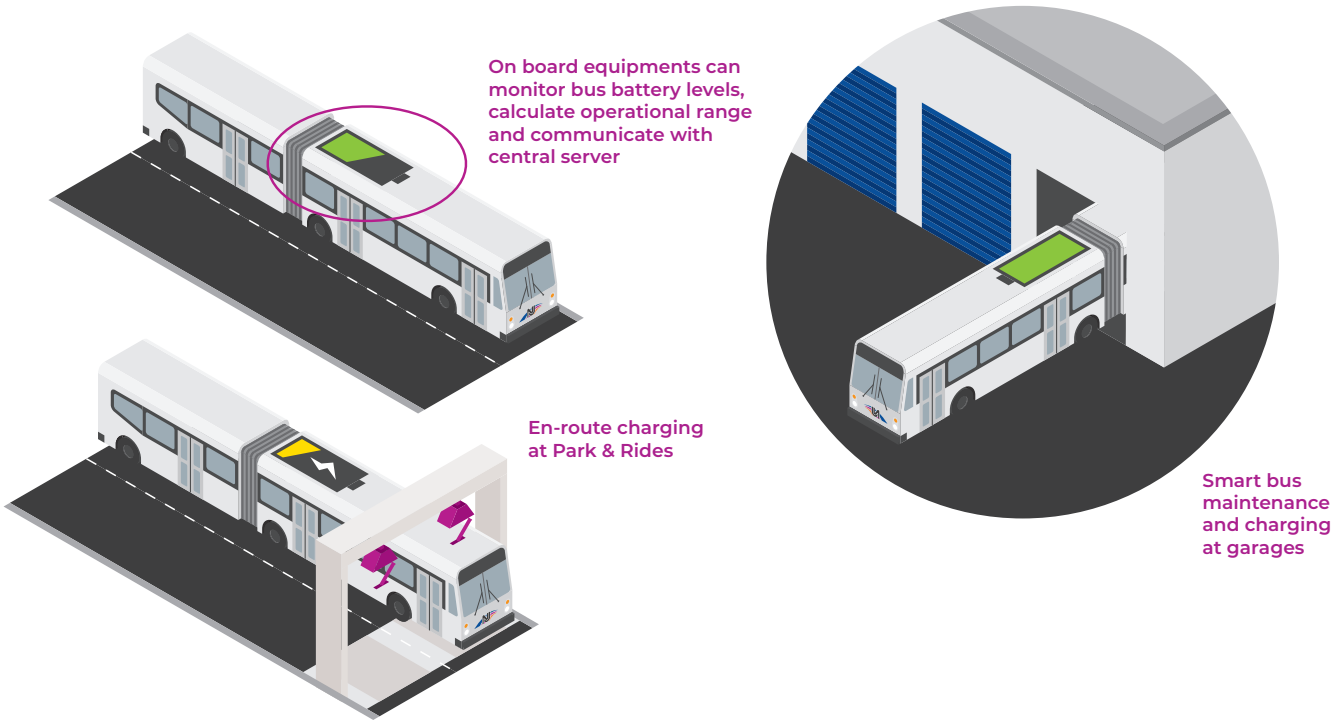
To achieve the goal and state mandate of procuring an entire Zero Emission Vehicles (ZEV) bus fleet by 2040, we will start by converting diesel transit buses (40-foot buses) to 40-foot ZEVs, adding articulated 60-foot ZEV buses, and fully modernizing five bus garages to support ZEV infrastructure needed.

MODERNIZING AND EXPANDING OUR BUS GARAGES

NJ TRANSIT operates 16 bus garages, which house and maintain the 2,300+ bus fleet. Bus garages are the single most important component of the system to maintaining a healthy bus fleet. Garages are where buses are fueled or, in the future, would be charged, washed, cleaned, and repaired, and they also serve as hubs for bus operations where functions such as dispatching, personnel management, and training occur (Figure 2-2). Garages are rarely taken out of service for intensive building upgrades because of the critical role they play every day, and no new garage has been built in the last 20 years, even as bus ridership has increased by approximately 20 percent.In order to comply with state mandates and upgrade to a fully ZEV bus fleet, all the bus garages need to be modernized. During the first phase of modernization, 5 bus garages (Wayne, Hilton, Greenville, Hamilton, and Newton Avenue) will be converted for ZEV operations. To be functionally equivalent, the remaining 11 bus garages will be modernized in later phases to support implementation of a fully ZEV bus fleet. Modernization upgrades include charging stations, electrical service upgrades, and other related equipment, which will increase efficiency, improve reliability, reduce the environmental footprint, and cut operating costs throughout the fleet.

FIGURE 2-3: GARAGE MODERNIZATION PROJECTS THROUGHOUT NEW JERSEY

FIGURE 2-4: ZERO-EMISSION BUS CHARGING: HOW IT WORKS



ZERO-EMISSION BUSES

NJ TRANSIT plans to begin phase one of its ZEV plan by replacing some existing transit buses with ZEV vehicles and fully replacing five bus garages with ZEV infrastructure to support the pilot of the ZEV buses. A zero emissions bus study is also underway to support the ZEV plan. These buses would include standard-size buses and longer articulated buses to test and optimize routes for a future zero-emissions fleet. New bus designs would also address the need to quickly clean and sanitize the vehicle between operations.

By rapidly replacing our aged fleet, NJ TRANSIT intends to make the future bus fleet more reliable and sustainable. In addition, investment in modernizing facilities and building new garages would enable the agency to replace significant portions of our existing fleet with higher-capacity buses and increase the size of the fleet. This would position NJ TRANSIT's bus fleet to respond to the future needs of our customers and of New Jersey residents.

This would fulfill the following goals:

- **Goal 1**: Ensure the reliability and continued safety of our transit system
- **Goal 2**: Deliver a high-quality experience for all our customers, with their entire journey in mind
- **Goal 3**: Power a stronger and fairer New Jersey for all communities in the region
- **Goal 4**: Promote a more sustainable future for our planet

ZERO EMISSION
BATTERY ELECTRIC
sportworks

BUS GARAGE CAPACITY AND EXTENDING SERVICE LIFE

Most of NJ TRANSIT's existing garages operate at or above capacity. In rapidly urbanizing regions, bus garages support fleet sizes that far exceed the square footage for which the garages were originally designed. Major fleet expansions have been minimal due to a lack of additional storage space for buses. This has forced our bus operations teams to creatively maximize the usage of every inch of a garage, which hampers their ability to rapidly respond or redeploy vehicles. In addition, these space constraints have limited our ability to improve service in regions that are urbanizing rapidly with minimal changes to fleet composition.

This Capital Plan addresses these constraints by prioritizing projects and programs that would increase garage capacity in areas that are spatially constrained and would modernize existing facilities so they can meet the needs of a modern bus fleet.

Projects would include building new bus garages, replacing the oldest bus garages, establishing resiliency measures for garages at risk due to climate change, and modernizing the remaining garages to extend their service lives.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

INVESTING IN MODERN FACILITIES TO ACHIEVE ZERO EMISSION BUS OPERATIONS

Our existing 16 bus garages have operated for decades without major reinvestment. As centerpieces of the system's operations and maintenance, these facilities would require significant investment to prepare them for managing a modern fleet and introducing a zero emission bus fleet and introduce a zero emission bus fleet. Many of the systems in our existing garages (including cleaning and sanitizing equipment, as well as maintenance bays) would require replacement due to their age and condition. Improved facilities for cleaning and disinfecting facilities have recently become more of a priority. To create a home for zero-emission buses and a modern fleet, this Capital Plan calls for significant investment to rebuild or reorient the facilities to meet new needs, including power and utility upgrades and charging stations.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

MODERNIZING OUR BUS FLEET AND EXPANDING ON-BOARD CAPACITY

Our bus fleet is tasked with carrying most of our customers and is often simultaneously deployed to support delays and disruptions to rail service. The average age of the buses in NJ TRANSIT's bus fleet are beyond older than the anticipated service life for a typical bus. As buses age, maintenance expenses escalate, and it becomes increasingly difficult to keep the required number of buses in operation. This Capital Plan would prioritize funding to replace buses—scheduled in order of age—until all buses within the fleet are operating within their recommended service lives.

In addition, the Capital Plan recognizes the current bus fleet has been tasked with supporting regions that continue to experience explosive growth and urbanization. In coordination with investments in bus garages, this Capital Plan would replace buses that operate on our most crowded bus routes with longer, higher-capacity buses (known as articulated buses). This replacement strategy would allow NJ TRANSIT to increase the space for passengers on the bus and potentially improve the carrying capacity of the bus fleet without the congestion challenges associated with increasing the number of buses on a route.

go bus
BROAD ST. TRAIN STATION
130 VIA CLIFTON COMMUNITY
9529
08
NJ TRANSIT

RESEARCH AND DEVELOP BUS RAPID TRANSIT SERVICE AND NEW INFRASTRUCTURE

Buses often face challenges when running on corridors where both demand for public transportation is highest and congestion is prevalent. These corridors, which often drive local economic activity, require additional transportation capacity to sustain future growth and face a challenge in managing congestion. New Jersey suffers from having a limited number of bus priority treatments that could help keep our bus fleet on schedule. Our intrastate bus network is also oriented toward providing local service (as opposed to express service); this results in more frequent stops and longer travel times.

This Capital Plan includes a planning study to develop concepts for bus rapid transit (BRT) projects that could introduce a new service designed to increase speed and reliability.

BRT uses a variety of roadway, bus lane, bus stop, and on-board technology improvements to provide buses with more of the attributes associated with rail service, such as dedicated rights-of-way to avoid traffic.

BRT systems typically include less frequent stops and have easier boarding and exiting infrastructure to help improve on-time performance (Figure 2-5). BRT stations and infrastructure can also anchor transit-oriented development. BRT is anticipated to provide NJ TRANSIT customers with express service that links with local bus services so that they can reach their destinations faster and more reliably.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

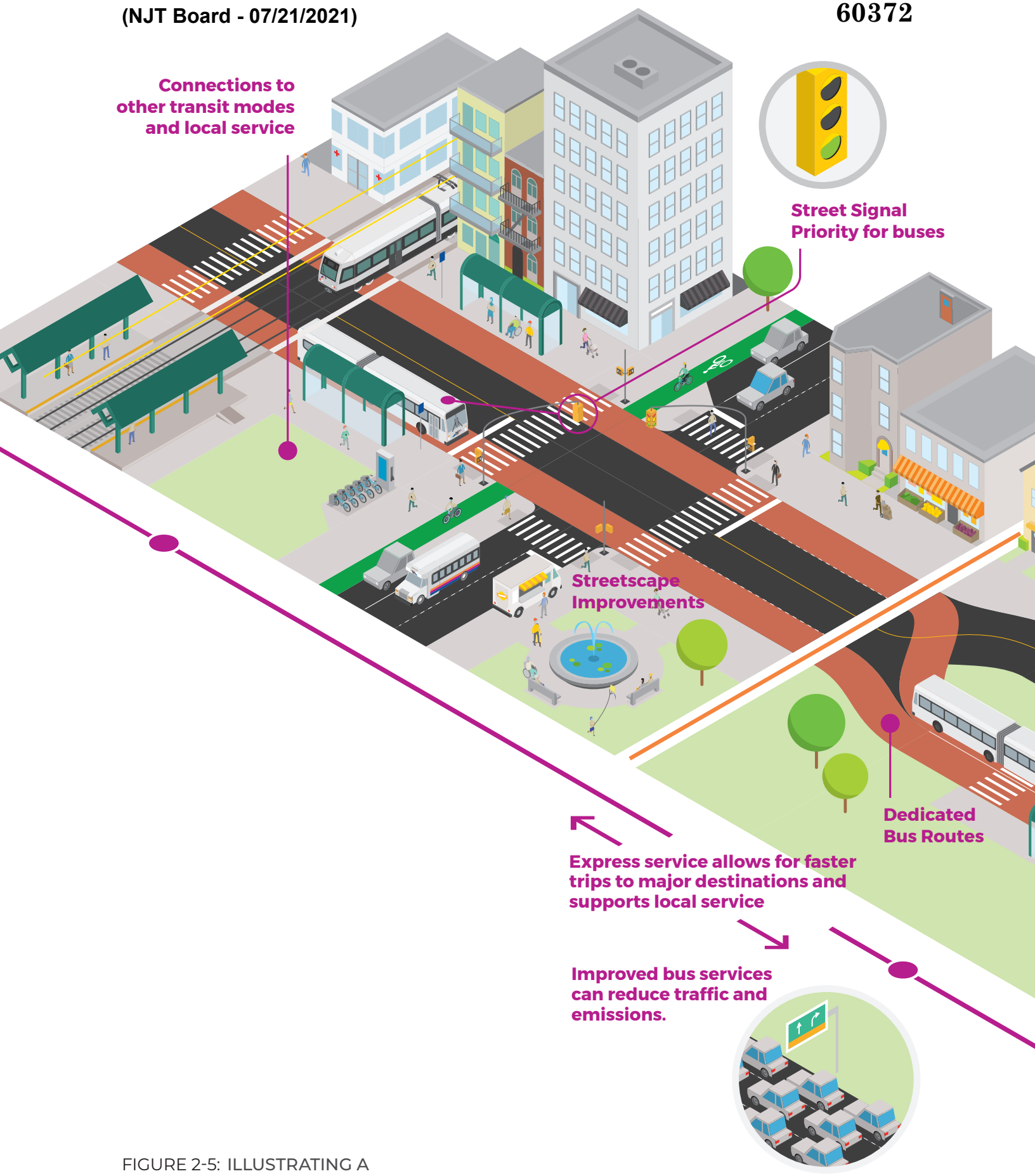


FIGURE 2-5: ILLUSTRATING A BUS RAPID TRANSIT SYSTEM

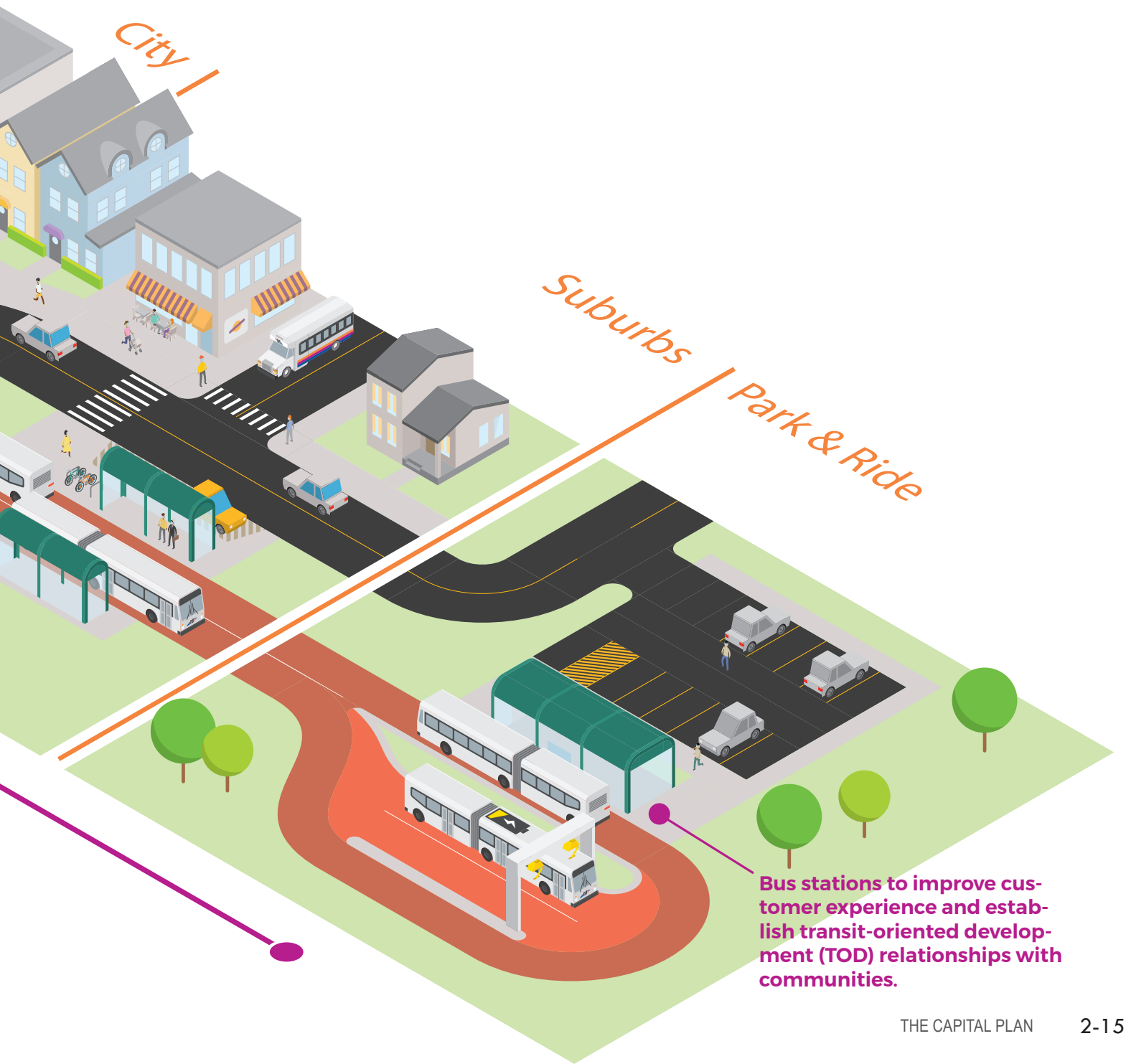
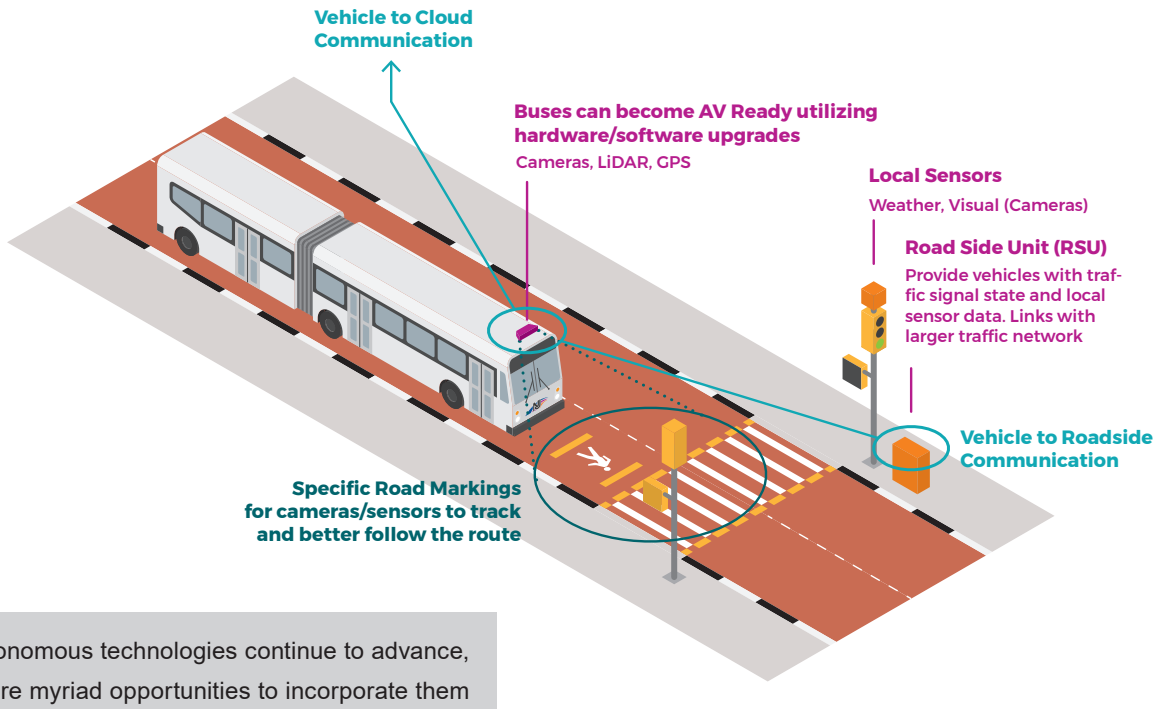

City
Suburbs
Park & Ride
Bus stations to improve customer experience and establish transit-oriented development (TOD) relationships with communities.

FIGURE 2-6: AUTONOMOUS VEHICLE READY TECHNOLOGIES



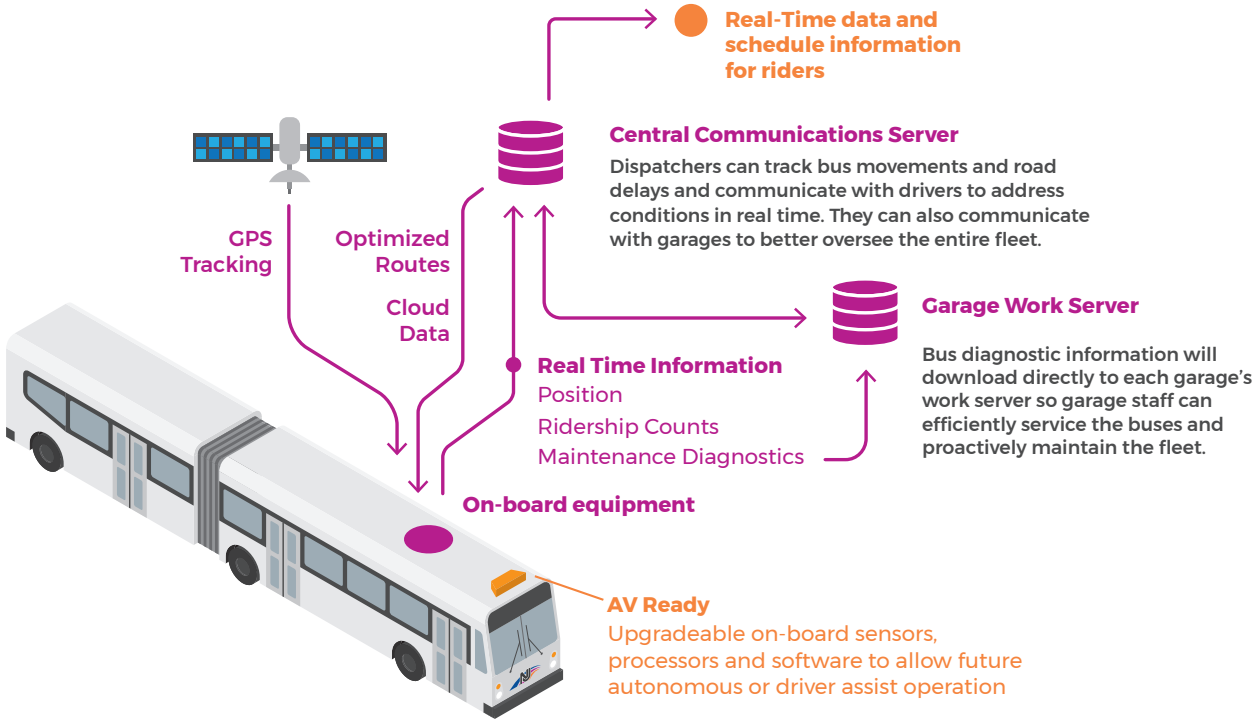
As autonomous technologies continue to advance, there are myriad opportunities to incorporate them into Bus Rapid Transit systems

INCORPORATING NEW TECHNOLOGY TO IMPROVE BUS SERVICE

In the past decade, the transportation industry has seen several surface transportation technologies emerge that improve service planning, dispatching, communications to customers, zero-emission bus fleet management, and asset management. Currently, NJ TRANSIT's bus network operates using software and technologies that are outdated and, in many cases, incompatible with each other. These technology deficiencies compound the challenges of maintaining an aging fleet, responding to the needs of customers, and responsibly deploying electric buses.

This Capital Plan would invest in an array of new on-board technologies that would track ridership counts, route performance, vehicle maintenance diagnostics, and real-time location, and would communicate all this information to a central communications server (Figure 2-7). A critical component would involve acquiring technology that would allow for bus diagnostic information to download directly to each garage's work server so that garage staff could efficiently service the buses and proactively maintain the fleet. With technologies that are flexible and capable of communicating with other systems, dispatchers could track bus movements and road delays and communicate with drivers to address conditions in real time, maintenance staff could use information on a bus's performance to schedule repairs, and future bus drivers operating zero-emission buses could receive updated calculations on their battery range.

FIGURE 2-7: NEW ON BOARD BUS TECHNOLOGY FOR IMPROVED SERVICE



Investments in these components of the bus system would be critical to delivering excellent service to our customers. A shortfall in any part of the system—such as a shortage of bus storage capacity at garages or poor lighting at passenger waiting areas—would compromise service. As New Jersey grows with new residential populations and commercial development, customer demand for modern bus services would continue to increase in some parts of the State, and it is crucial to address these new transit needs as efficiently as possible. Deploying these technologies would position us to become a leader in innovation and would drive future innovations that would further improve our ability to efficiently and reliably deliver service.

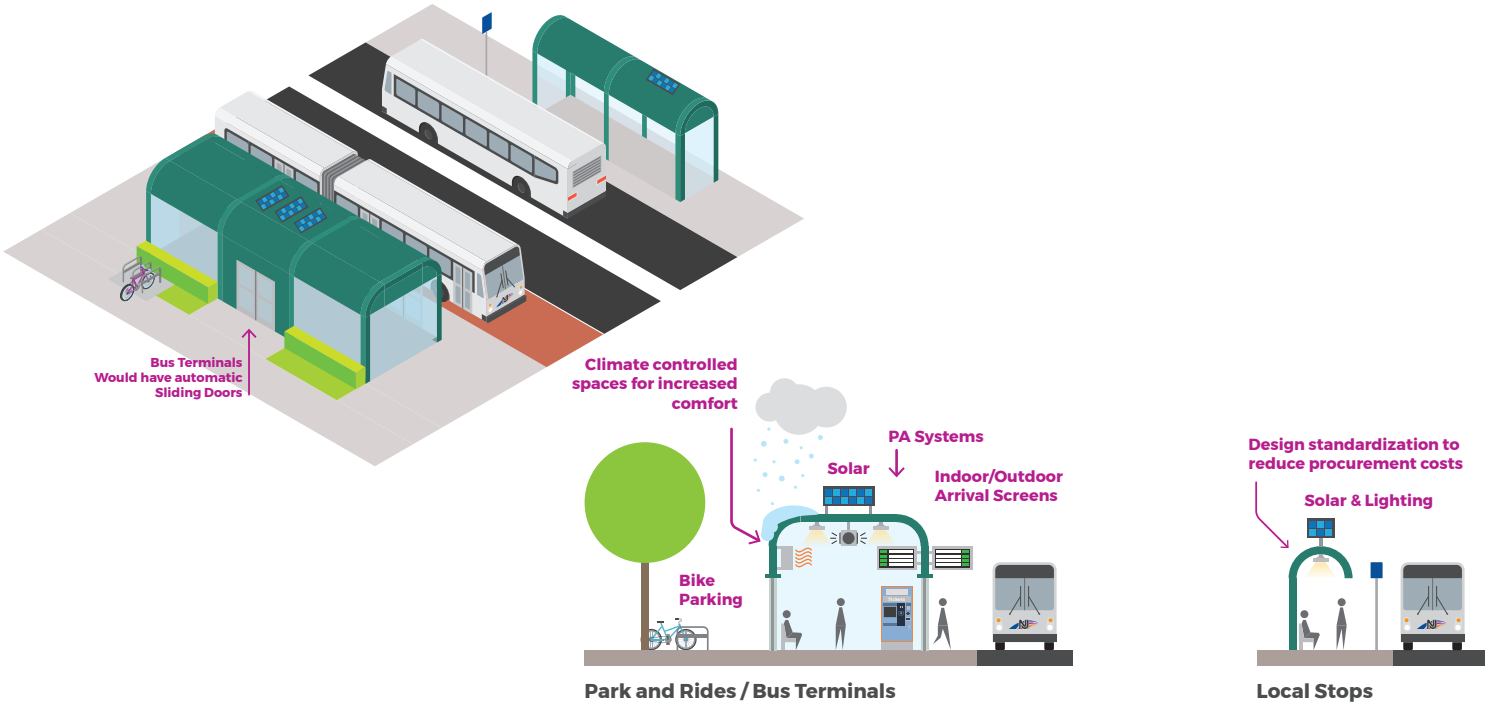
This would fulfill the folllowing goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

FIGURE 2-8: IMPROVED BUS SHELTER DESIGN CONCEPTS



INVESTING IN THE BUS EXPERIENCE

Customers access our bus network either through one of our many bus stops, park & rides, terminals or intermodal centers. Many of these facilities need rehabilitation and upgrades or simply do not afford the basic comforts. NJ TRANSIT is seeking capital investment to improve the public facilities that bus customers rely on every day to access the bus network.

Park & Rides

At each NJ TRANSIT Park & Ride facility, NJ TRANSIT provides shelter structures to protect customers from the elements, but not all shelters are accessible. These park and ride facilities serve over 250 bus routes and are critical transportation nodes for commuters.

NJ TRANSIT plans to develop bus shelters at our park & ride facilities that provide an experience comparable to what we provide rail commuters. These new shelters would incorporate a climate controlled design to make waiting for the bus more comfortable (even during bad weather), meet design standards to become accessible, and have reliable public announcement systems and digital displays so that customers know when the next bus is arriving.

Bus Terminals And Intermodal Transit Centers

NJ TRANSIT operates nine bus terminal facilities, which serve 91 lines with annual ridership of approximately 60 million. Because each facility was built in a different year (most date back over 40 years) and has seen only limited improvements, they all are at different levels of need for rehabilitation and they have a variety of public announcement systems. This Capital Plan seeks to rehabilitate terminals in poor condition and restore them to a state of good repair. This plan also seeks to bring these locations up to the same standard NJ TRANSIT has for its bus station program so that customers can rely on the same level of cleanliness, comfort and information systems throughout the bus network.

For major terminals like Walter Rand Transportation Center, NJ TRANSIT would partner with Camden County and other local governments to advance the terminal redesign and reconstruction.

Bus Shelters

NJ TRANSIT also responds to local government requests to furnish bus stops with bus shelters.

To further standardize the customer experience, NJ TRANSIT would roll out a bus shelter program to introduce new enhanced bus shelters with solar panels to power LED lighting. Shelter designs would be standardized to reduce procurement costs and simplify installation (Figure 2-8). NJ TRANSIT would deploy shelters only where municipalities agree to make “safe streets” treatments and modifications to the streetscape so that the bus stops would be accessible to all.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

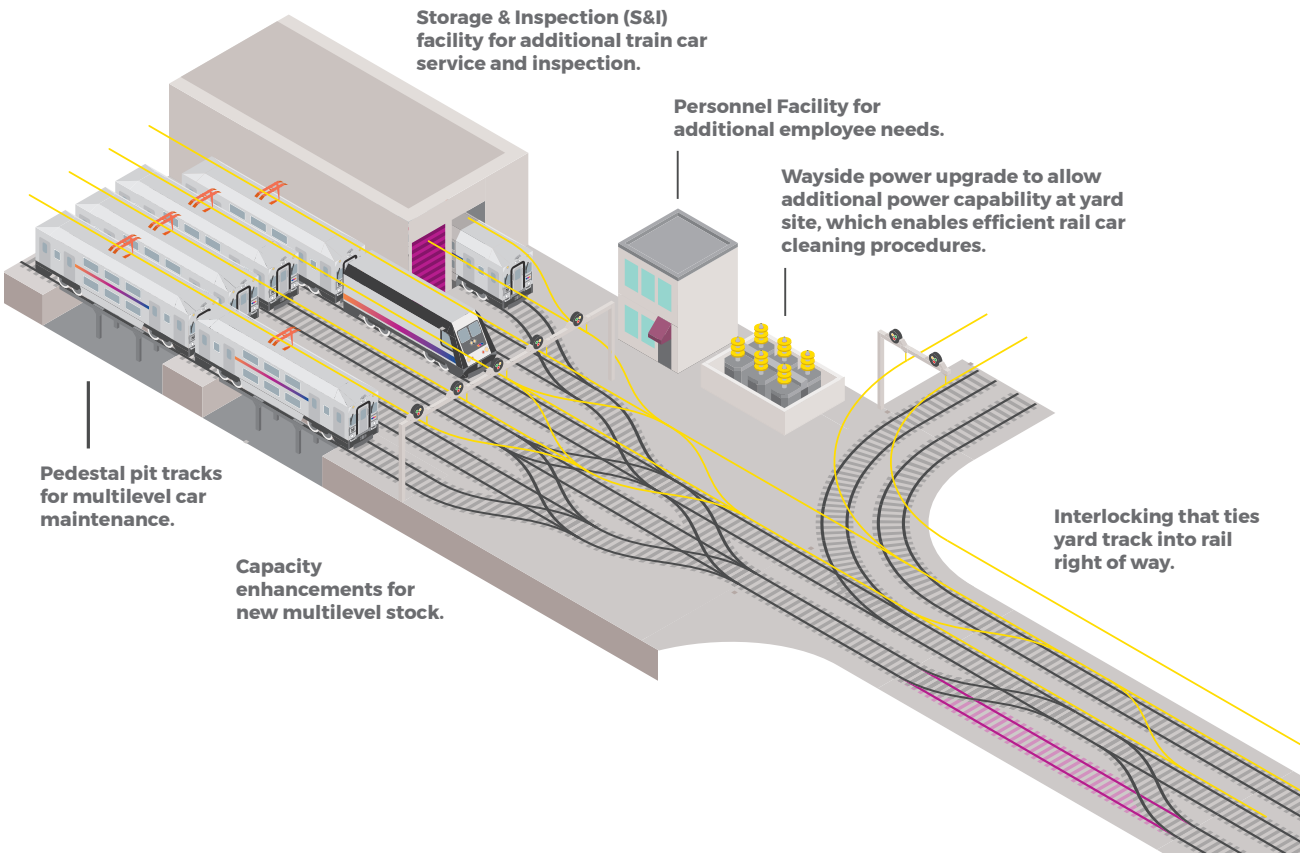
2.2 INVESTING IN RAIL

This Capital Plan calls for investments in rail infrastructure to improve the rail system's flexibility and reliability. This includes improving interlockings, adding additional through tracks in certain junctures, modernizing and building out smaller yards, and, in some cases, building out additional linkages between rail lines. By investing in these projects, rail operations would be able to more flexibly handle service changes, outages and disruptions. In addition, these projects would be aligned with the additional infrastructure needed to fully maximize the potential a new trans-Hudson tunnel would bring or that additional service to Hoboken would require. By making these major infrastructure investments, NJ TRANSIT could modernize the rail network to meet the needs of the State today and in the future.

In tandem with these infrastructure upgrades, this Capital Plan focuses on improving our fleet reliability. As part of this effort, we would replace our aging fleet with new multi-level cars. This plan calls for a full conversion of all single-level passenger cars to multi-level cars, standardizing our rail car fleet so that future maintenance and operations would be simplified. In addition, this Capital Plan would modernize yards and inspection and maintenance facilities to store, maintain and dispatch a modern fleet.

NJ TRANSIT is seeking to make a holistic investment in Hoboken Terminal. New facilities would make the station more resilient against flooding and extreme weather events and would enable the station to better address long-term capacity and growth needs for the State.

FIGURE 2-9: IMPROVED RAIL YARD DESIGN CONCEPTS



This Capital Plan includes proposed major improvements and repairs to stations throughout the network. NJ TRANSIT intends to expand accessibility to the rail network for all customers. NJ TRANSIT also seeks to address our major terminals, and strives for a major investment in the future resilience of Hoboken Terminal.

FLEET AND YARD IMPROVEMENTS

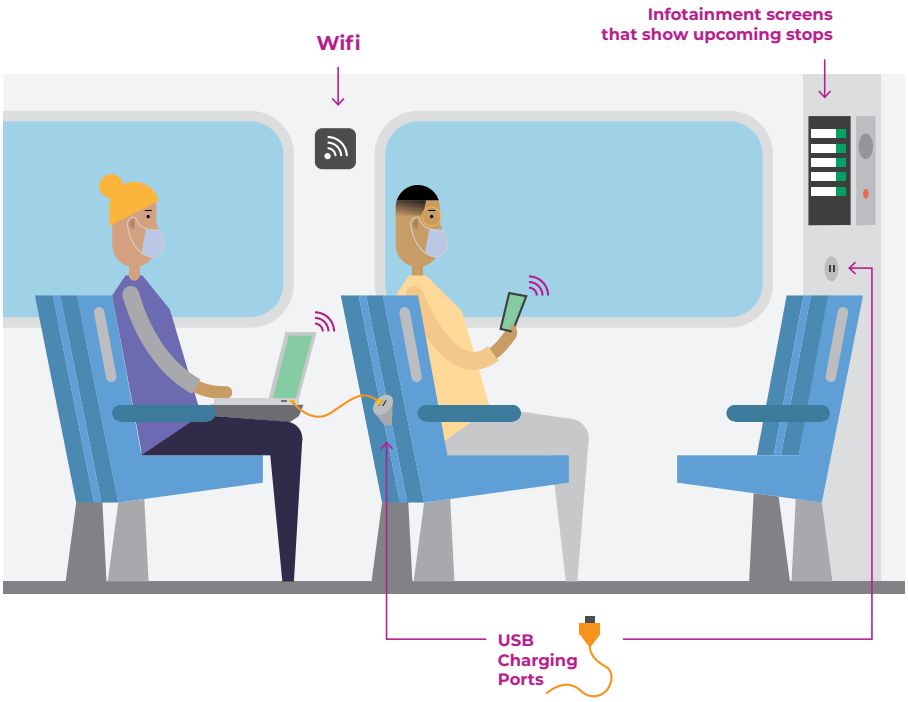
Our rail fleet carries passengers to and from New York City and to many other destinations throughout the State. However, much of the fleet has exceeded its useful life. Of our 1,113 cars, 319 are at least 38 years old; the anticipated service life for a typical rail car is 30 years.[1]

In addition, most of our fleet is made up of single-level cars (all of which are from 2002 or earlier) that feature unpopular two- and three-passenger bench seas. Our multi-level cars are more popular, but a new infusion of multi-level cars is needed to replace existing single-level cars. Significant delays and disruptions have been attributed to mechanical failures, and NJ TRANSIT intends to address this issue by standardizing its fleet and decreasing the average age of the fleet.

1 NJ TRANSIT Multilevel III Presentation, December 2018

4501
NJ TRANSIT
4501
NJ TRANSIT

FIGURE 2-10: PASSENGER TECHNOLOGY IMPROVEMENTS



This Capital Plan calls for an aggressive fleet replacement program, which would soon lead to an all multi-level fleet. It recommends a phased eight-year approach that would allow single-level cars to be gradually phased out of service once new multi-level cars begin to enter the rail fleet in 2023. These new multi-level cars would enhance customer experience, would be easier to clean and sanitize, would reduce operating costs, and would help better prevent against delays associated with mechanical problems. By the end of this process in 2029, NJ TRANSIT would have an all multi-level fleet of 1,149 cars, and the average rail car would be 10 years old (a significant upgrade over the current average age of 22.25 years). Existing multi-level cars would also be overhauled with new parts and equipment to improve their performance and reliability.

This plan is intended to work in tandem with yard modernization programs, through which pedestal pit tracks (needed to maintain and inspect any multi-level vehicle) would be installed and additional capacity for rail equipment storage would be created.

A phased approach to renovating multiple yards throughout the system to accommodate the new fleet would parallel the multi-level fleet acquisition, which would enable the new cars to be serviced efficiently. By prioritizing these new investments in the rail fleet, we could provide customers with a more reliable, clean, and pleasant riding experience as they travel to their final destinations. All these improvements would significantly modernize our rail fleet and allow it to respond effectively to customer needs throughout New Jersey.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

RAIL INFRASTRUCTURE CAPACITY ENHANCEMENTS AND REPLACEMENTS.

Our rail system relies on many different infrastructure pieces to run effectively and smoothly. However, there are several key locations where specific pieces of infrastructure present operational challenges. These location-specific issues—which are present throughout the whole system—can lead to regular delays and inefficient service. Obsolete and now undersized river crossings negatively affect service throughout the rail system. Multiple bridges throughout the agency's system have long exceeded their useful lives. Problems on these bridges can, at times, lead to speed limit restrictions and subsequent delays. Drawbridges that remain stuck in the "up" position can also lead to service stoppages on lines throughout the system.

Significant investments need to be made to ensure these problems are fixed so the rail system could effectively serve customers. Without these investments, infrastructure issues throughout the system would only get worse. Delays would increase, and the system would not be able to accommodate needed service expansions to match our ridership increases. This means the system would never realize its full potential and would never be able to serve customers as reliably as it should.

This Capital Plan has identified key areas where infrastructure upgrades could mitigate some of these pain points. Interlockings, retaining walls, bridges, signals, and other significant pieces of rail infrastructure would be upgraded and enhanced throughout the system. These capacity enhancements and replacements would help us provide more reliable service to customers—a critical piece of this Capital Plan's work.

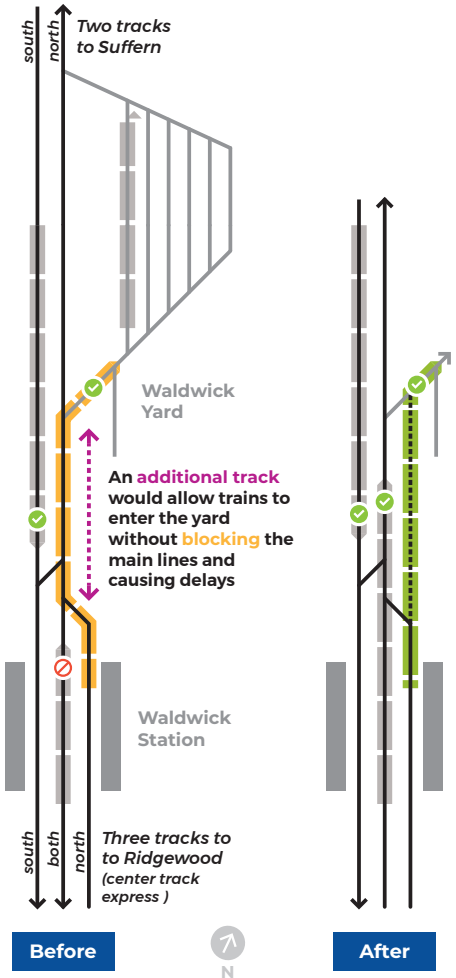
A key piece of this work would involve prioritizing any upgrades to poorly configured interlockings that cause delays. Improvements to these problem interlockings would allow trains to move unimpeded through the system and enable greater service flexibility and service enhancements throughout the system. A drainage improvement program would mitigate flooding issues at key locations and, thereby, improve service, as drainage issues often lead to false signal indications resulting in delays. Finally, flyover tracks would be installed at key locations to reduce current train conflicts and ease scheduling pressures. Trains that are forced to merge onto existing high-speed rail lines from yards or from other rail lines must often wait for trains traveling at high speeds to pass, which means they cannot travel freely and are often delayed. These flyovers would mitigate that problem.

Bridge improvements are also a significant part of our infrastructure improvement plan. In other instances, new bridges would incorporate additional tracks where choke points currently inhibit ideal service. This would allow trains to move more efficiently through bridges where delays commonly occur.

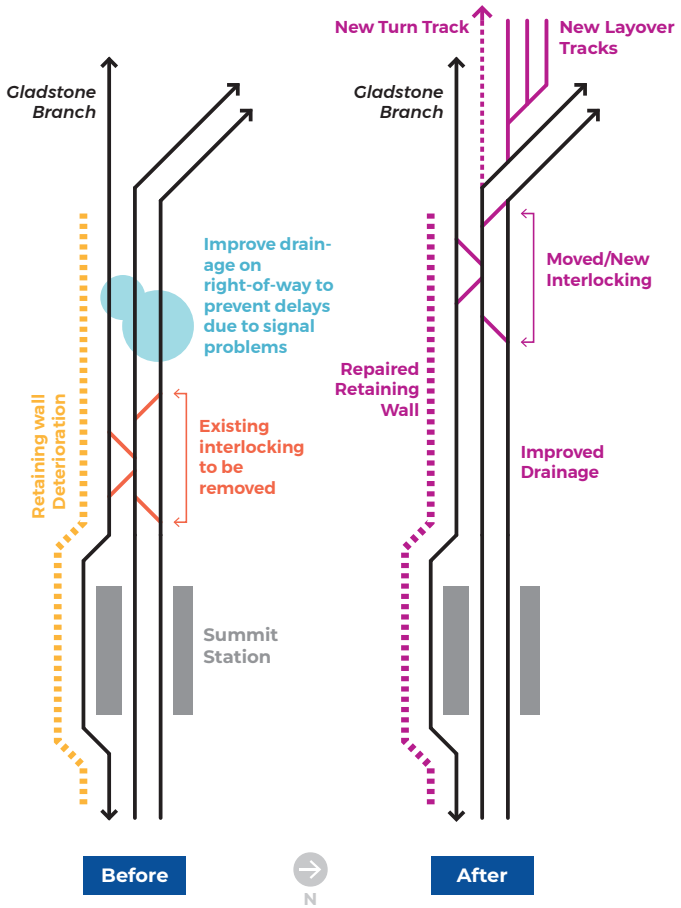
Our train schedule currently is built around avoiding these existing infrastructure problems. This creates inefficiencies and prevents the system from meeting its full potential. This Capital Plan's recommended solutions would allow the rail system to grow in a logical way, would increase capacity, and would allow our rail system to provide more reliable and robust service.

FIGURE 2-11: INTERLOCKING IMPROVEMENTS CONCEPT DIAGRAMS

WC INTERLOCKING



WEST SUMMIT INTERLOCKING



This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

FIGURE 2-12: MORRIS & ESSEX LINE IMPROVEMENTS – HOLISTIC INVESTMENTS ACROSS A LINE

Port Morris Yard

Dover Yard and Interlocking

Yards

Yards updated with pedestal pit tracks for multilevel car maintenance.

Interlockings

Drainage

Improved drainage along track prevents signal problems that result in delays.

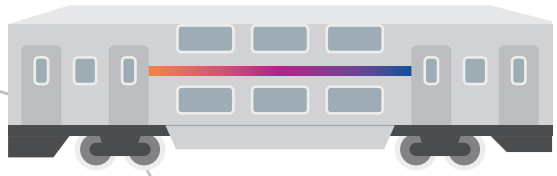
Gladstone Yard

Station Accessibility Improvements

Add High Level Platforms (HLPs) along with access ramps and evelvators. In addtion to providing ADA accessibility, high level platfroms allow for safer and faster boarding for all riders.

Address any unsafe conditions or necessary repairs

Additional ADA Parking will also be addressed at stations.



Multilevel Fleet (Systemwide)

Replacing the older passenger fleet with new Multilevel cars results in added comfort and reliability

Problems that need to be addressed along a single line compound to create bigger delays and become expensive to continually repair.

Roseville Cut

A new fence and lighting here will improve safety and improved drainage will reduce delays due to signal problems.

Orange
Brick Church

Summit
Interlocking

Maplewood

New Providence

Millburn
Interlocking

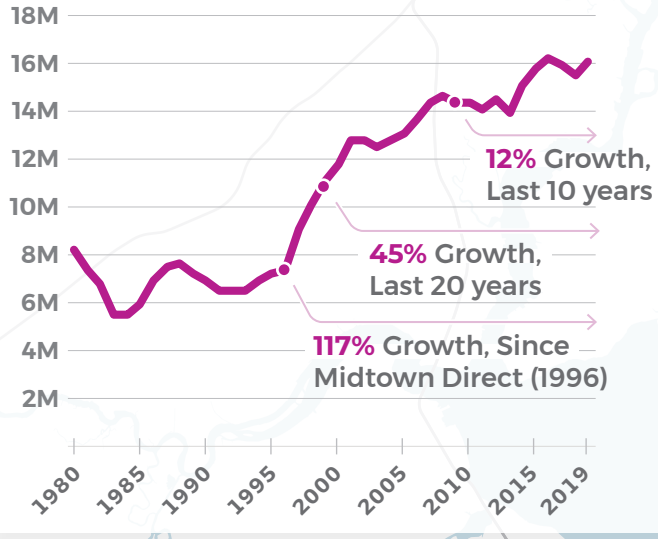
Murray Hill

Berkeley Heights

Newark
Drawbridge

Hoboken
Terminal

RIDERSHIP GROWTH



Add High Level Platforms along with access ramps and elevators. In addition to providing accessible boarding, high level platforms allow for safer and faster boarding for all customers.

Address any unsafe conditions or necessary repairs.

Additional accessible parking would be provided at stations.

HOBOKEN

Hoboken Terminal is a critical linchpin for NJ TRANSIT's system. The station's 17 tracks are the terminus for our Pascack Valley, Main/ Bergen, and Gladstone Branch lines. A variety of rail infrastructure at or near the terminal site assists with daily operations. A rail yard, a fueling facility, and other similar infrastructure pieces are nearby to help ensure service runs efficiently and smoothly. The station also has significant bus service; buses from Hoboken travel throughout Hudson County and into New York City. The Hudson Bergen Light Rail stops at the terminal. PATH and ferry service are also present.

Superstorm Sandy showed, in stark detail, the vulnerability the station faces. The storm surge flooded the terminal with 5 feet of stormwater, and the station was closed for more than two months as repairs and restorations were made.

The station remains vulnerable to similar threats. This Capital Plan would make the station more resilient by elevating the station building to mitigate threats from storm surge, extreme weather events, and seasonal flooding. We would do this in a way that is sensitive to the existing historic character of the station terminal building and to the surrounding area.

LACKAWANNA CUT-OFF

Restoration of passenger service on the Lackawanna Cut-Off is one example of how service may increase at Hoboken Terminal. The next phase of this project involves restoration of the Roseville Tunnel and construction of a new station in Andover.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

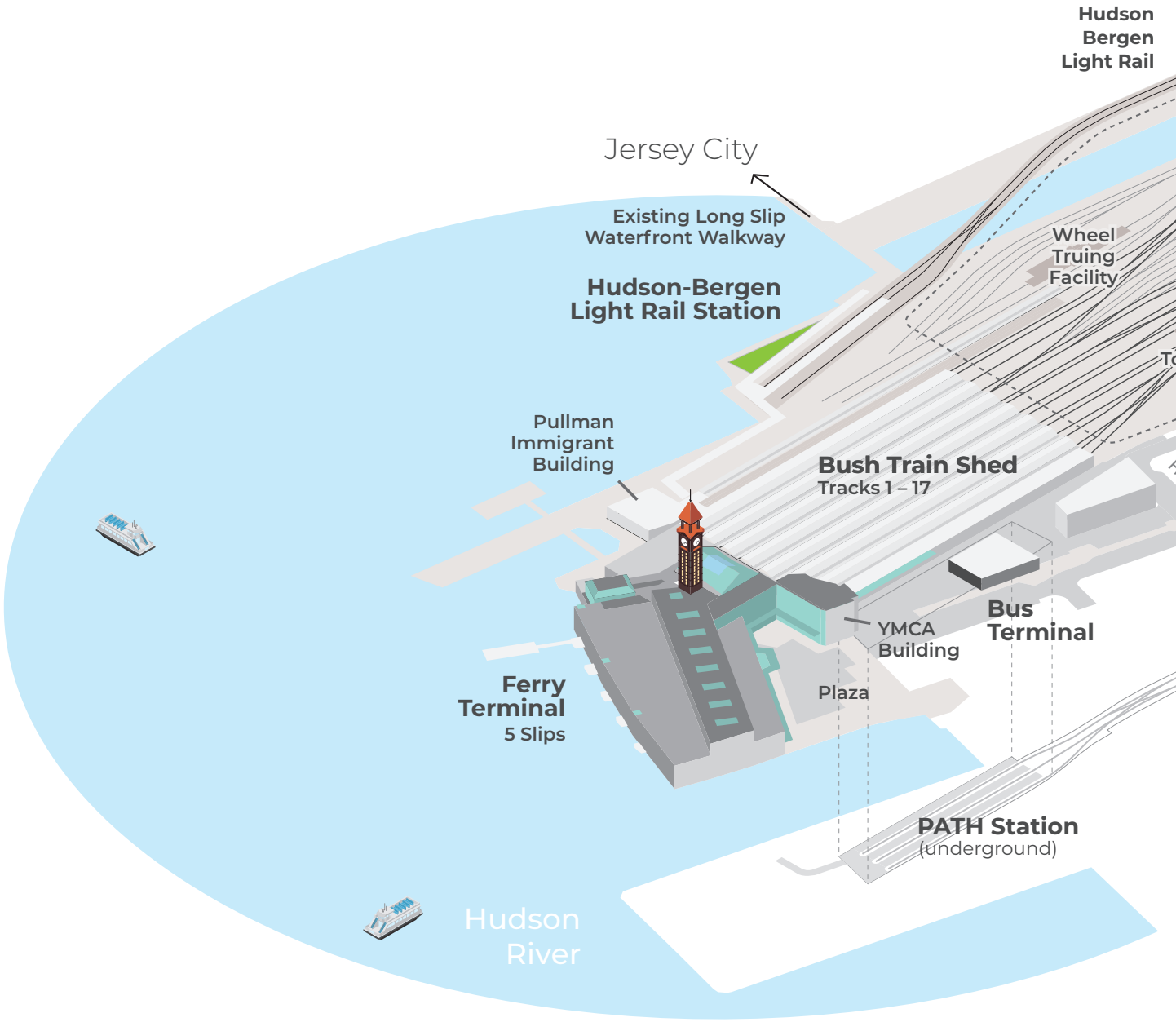
Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

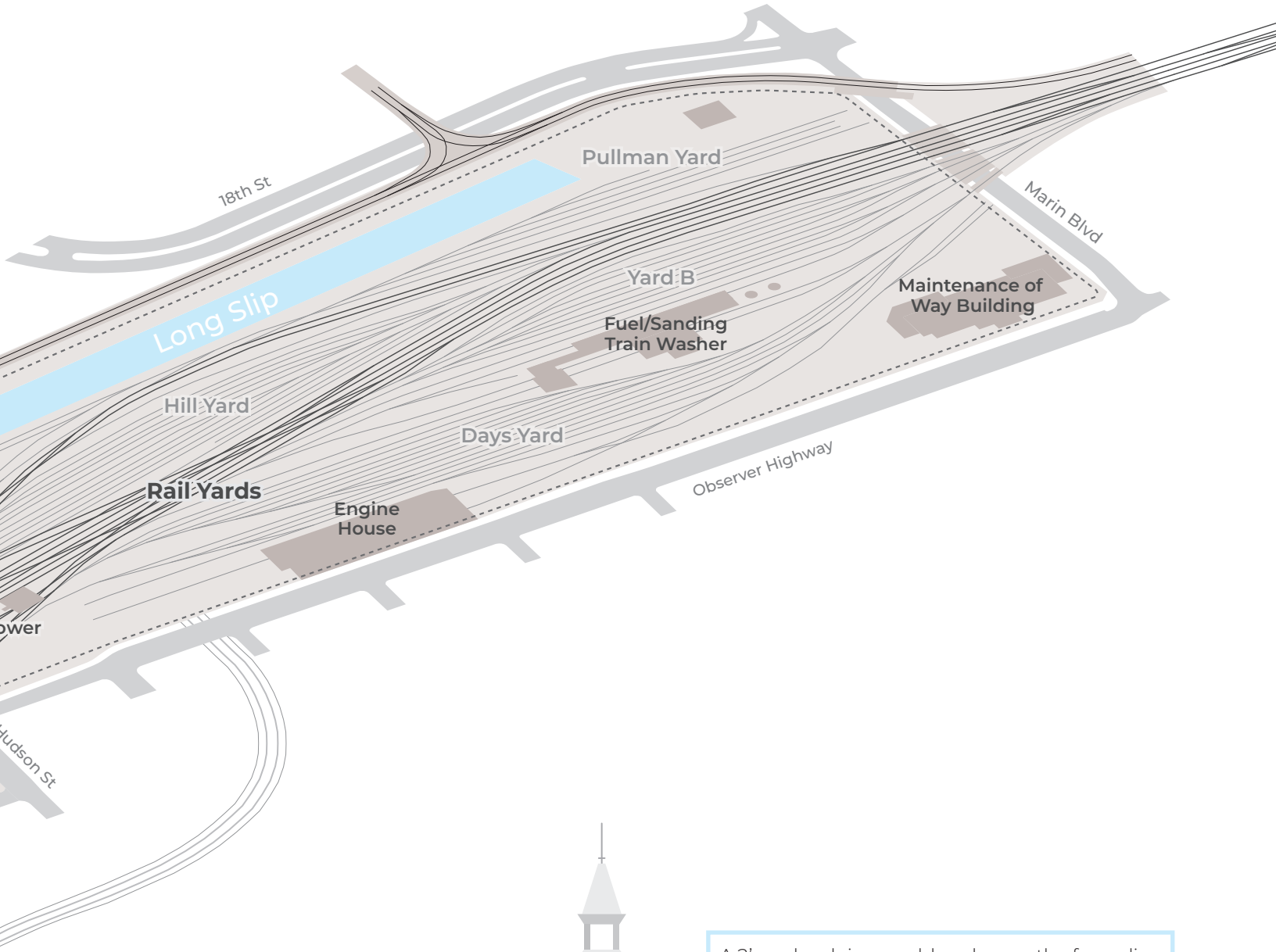
Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

FIGURE 2-13: THE CHALLENGES FACING HOBOKEN TERMINAL





A 2' sea level rise would endanger the ferry slips and flood the main waiting room concourse

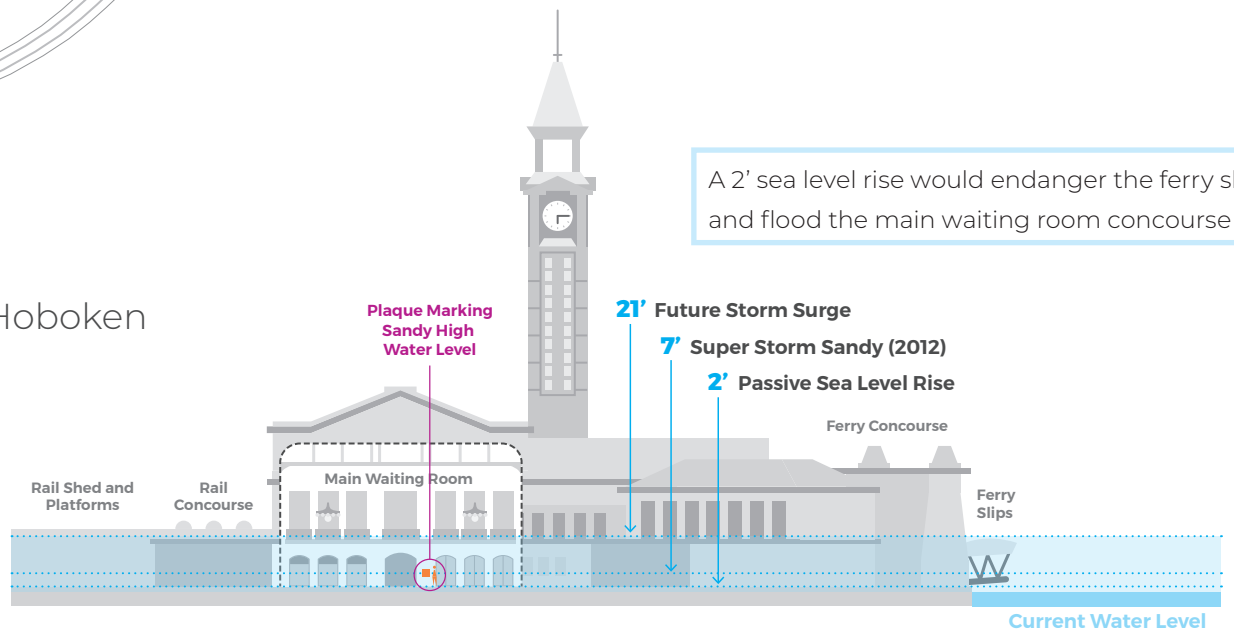
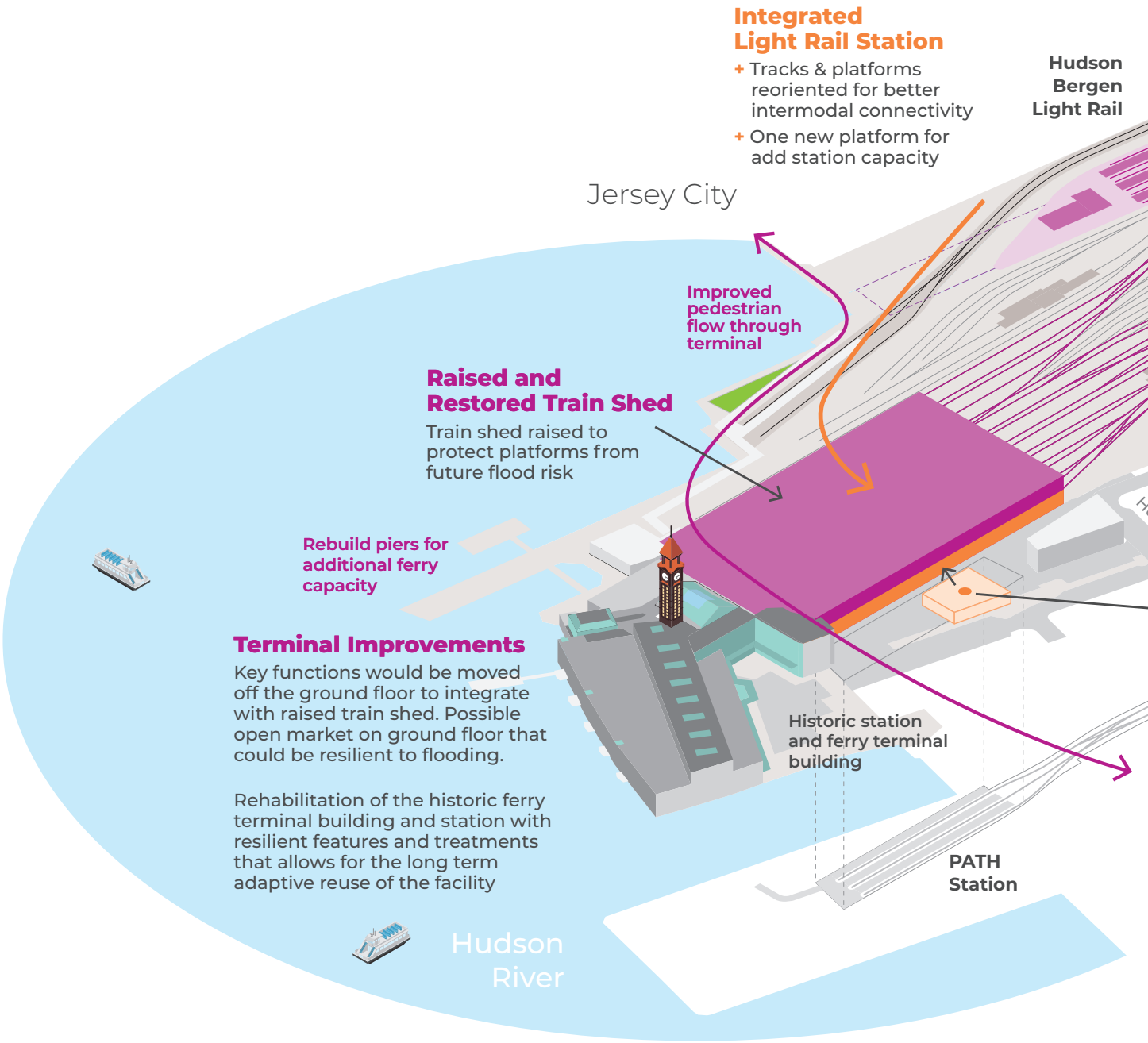
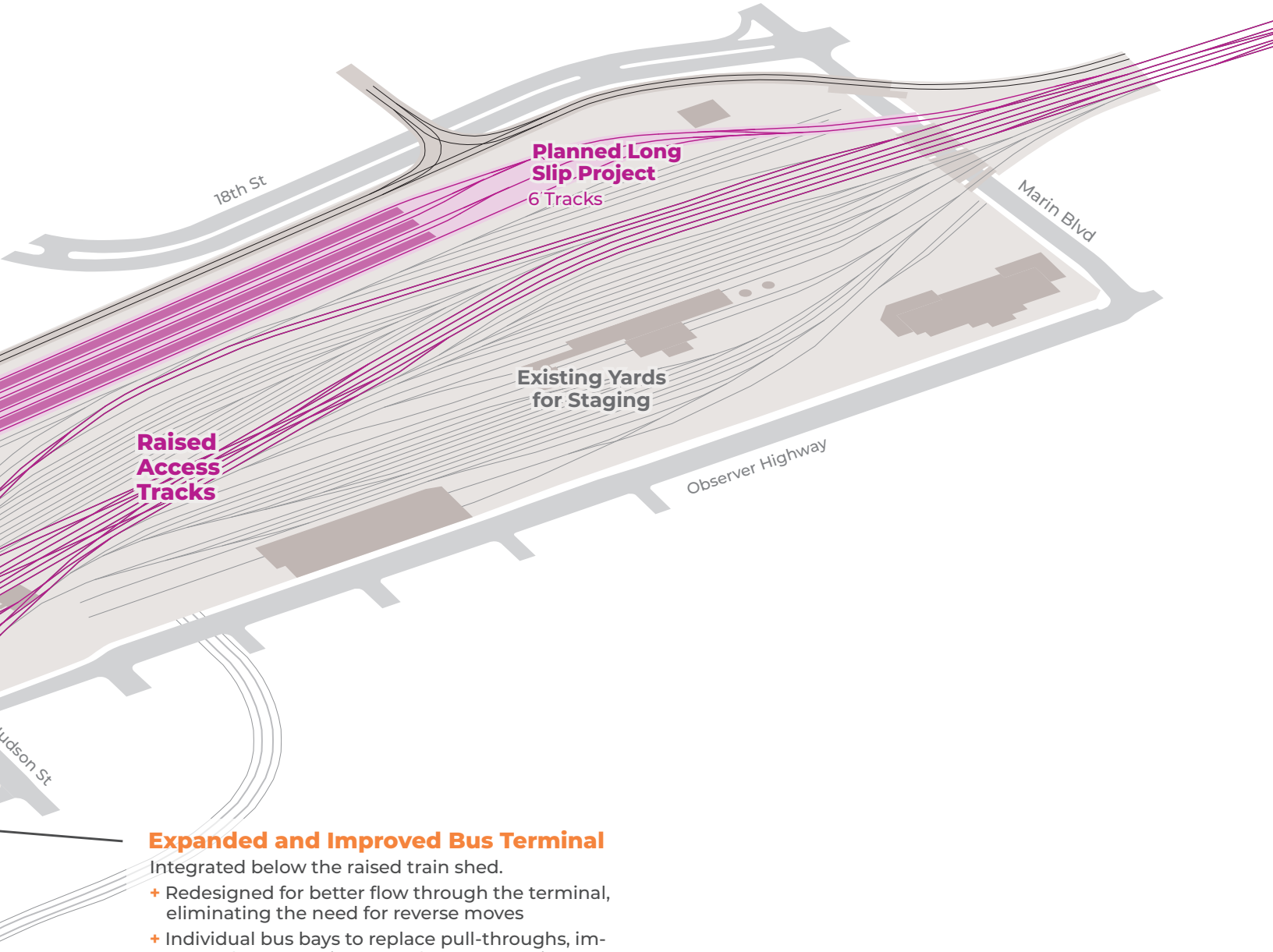


FIGURE 2-14: THE VISION FOR AN IMPROVED HOBOKEN TERMINAL





Expanded and Improved Bus Terminal

Integrated below the raised train shed.

+ Redesigned for better flow through the terminal, eliminating the need for reverse moves
+ Individual bus bays to replace pull-throughs, improves bus operations & makes gates easier to locate for customers

Hoboken

RAIL STATIONS

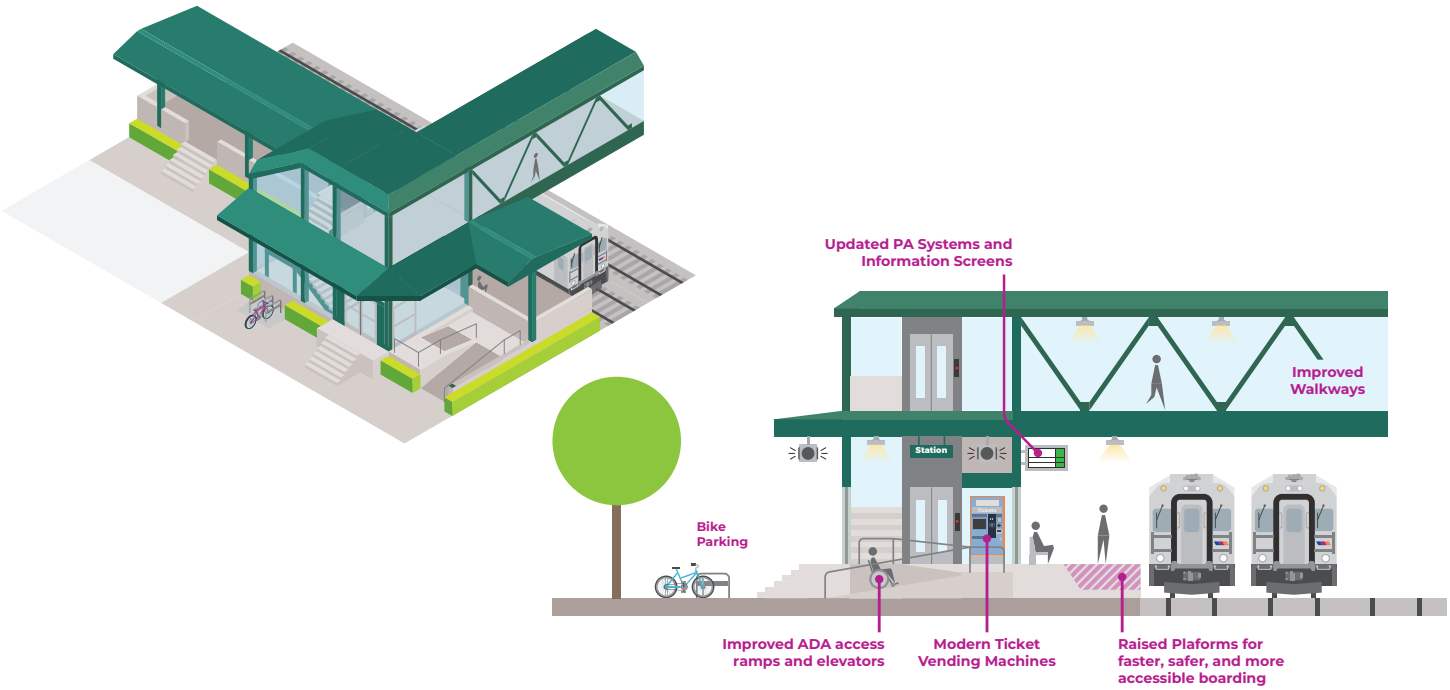
NJ TRANSIT's rail stations are a diverse array of structures and buildings built in different eras by different companies with differing design philosophies. This has created a challenge for NJ TRANSIT to manage the unique needs of these structures and the communities they serve. A lack of funding has meant that many stations have been neglected over the years. Platforms have not received needed attention. This means that limited funds have allowed for only the most basic functions to be performed, and complete state of good repair work has been deferred.

This Capital Plan's station State of Good Repair Program would ensure that stations remain functional, safe, clean and attractive places for customers. This plan would invest in regular cleaning procedures, as well as in repairs of critical station features such as platforms, canopies, elevators, escalators, and station buildings.

This work would bring the stations up to a basic state of good repair and would provide our customers with clean, comfortable, and reliable station infrastructure as they travel through our system.

Stations chosen were subject to a metrics-based prioritization process. Stations were selected based on need for improvements and which would be best equipped to handle the work needed. Multiple stations along the Northeast Corridor that sorely need platform work were chosen as part of this process. Other stations were picked for larger-scale full rebuilds and relocations in order to improve station accessibility (in some cases) and to allow trains to travel through the area in a more efficient manner (in others). Every station scheduled for improvement as part of this plan would see significant state of good repair upgrades that would allow the station to stay in good condition for many years to come.

FIGURE 2-15: RAIL STATION IMPROVEMENT DESIGN CONCEPTS



We are also working to improve access to stations. Of those stations in need of improved accessibility, 30 were chosen to receive upgrades as part of this plan. We would work to eliminate or alter features that might be difficult to navigate so it is would be easy for anyone to comfortably and safely use the stations. We plan to also install pedestrian- and bicycle-friendly infrastructure at stations throughout the system; this would include bicycle racks, crosswalks, and repainted parking lots. We intend to work with surrounding municipalities so we can best achieve this goal.

Information technology is also a key element of our station work. We would roll out a new, networked standardized public announcement system that would better connect to our communications systems. Better digital signage would allow for our communications teams to easily update information and provide the latest train arrival time.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

RESILIENCY

NJ TRANSIT relies on a wide variety of rail-related infrastructure—rail fleet, bridges, interlockings and more—on a day-to-day basis. Climate change complicates the future of day-to -day operations because it alters the frequency and severity of weather events that cause disruptions. A large portion of the system relies on catenary power to power trains; if that power is disabled, trains would not be able to run. Certain bridges with low vertical profiles (that are close to water) are at high risk during challenging weather events. Drainage problems would only get worse if a severe weather event hits the region. As an agency, it is also important for us to address issues associated with rising seas that could wreak havoc on our infrastructure, particularly at Hoboken, where potential flooding could cause significant issues at one of our major rail and bus hubs.

It is important for us to address these issues before they worsen. We have identified specific ways to make our infrastructure more resilient against some of these threats. Doing so would enable us to provide more reliable service to customers in the event of challenging events and would provide our customers with peace of mind that their service would not be significantly disrupted as seas rise and when extreme weather events occur.

These critical vulnerabilities to climate change are present systemwide and would be addressed in a variety of ways. Work at Hoboken Station (outlined above) is a crucial part of this Capital Plan's work to address the rail network's overall resiliency. We have provided for additional rail yard space to provide safe equipment storage during major flooding events.

A power resiliency project would generate power for NJ TRANSIT's electrified lines, which means our rail service on specific lines would have the ability to keep running even if the power it typically relies on goes out.

We also need to account for employee needs if a challenging event were to occur. Backup and new employee facilities would improve working conditions and provide redundancy for key rail functions in case of emergency. This would ensure that employees could serve our customers during an extreme weather event and would allow customers to rely on uninterrupted service.

This would fulfill the following goals:

- **Goal 1**: Ensure the reliability and continued safety of our transit system
- **Goal 2**: Deliver a high-quality experience for all our customers, with their entire journey in mind
- **Goal 3**: Power a stronger and fairer New Jersey for all communities in the region
- **Goal 4**: Promote a more sustainable future for our planet

2.3 INVESTING IN LIGHT RAIL

NJ TRANSIT has planned investments for all three light rail lines. The work planned for each line is based on each lines' age, geography and operating conditions. All all planned work falls under these general categories:

STATIONS

The oldest line, Newark Light Rail, needs general station improvements to provide a better and safer customer experience. Four stations need improvements to make them accessible, and the remaining stations need work to improve their operational efficiency and general appearance. The age of the system means that these stations need the most intensive amount of work compared to the other light rail lines.

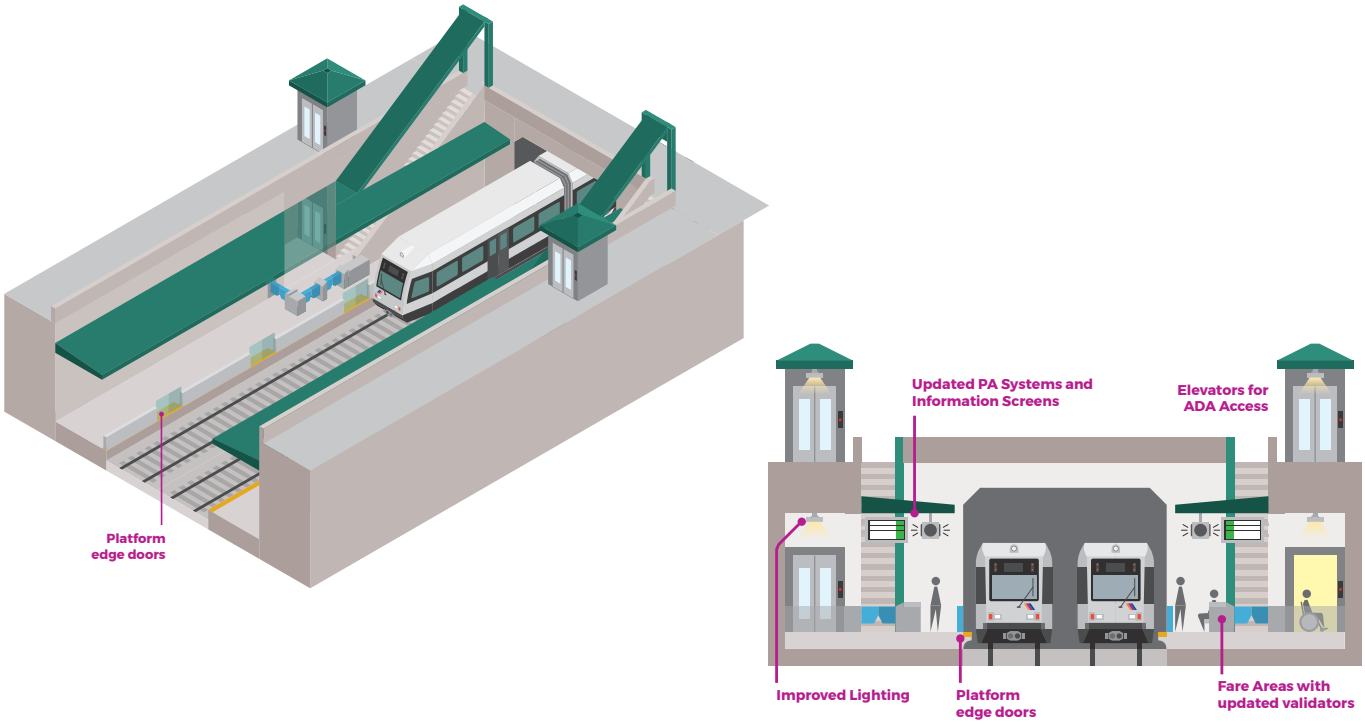
This Capital Plan includes proposed station improvements to modernize old stations and redesign station access for four stations that are not accessible.

LIGHT RAIL FLEET

The River LINE, with the longest right-of-way (34.5 miles), runs more vehicle miles per day than the other light rail lines. This amount of usage puts excessive wear on the engines, which now must be rebuilt to continue running service. The vehicles are also past their anticipated service and due for a mid-life overhaul, which would refurbish the body of the rail cars.

This Capital Plan includes a mid-life overhaul for all River LINE vehicles, which would include refurbishing both the interior and exterior of the vehicle body, including exterior finishes, windows, and seating.

FIGURE 2-16: LIGHT-RAIL IMPROVEMENTS



EXPANDING THE LIGHT RAIL NETWORK

The Hudson-Bergen Light Rail, with connections to New York City crossing points at Hoboken Terminal and Exchange Place, has the highest ridership demand of the three light-rail lines and is poised to grow. To address this and improve service, this Capital Plan would invest in new rolling stock to expand core capacity and then in two expansions to extend the Hudson-Bergen Light Rail north into Bergen County and west to the west shore of Jersey City.

These expansions in light-rail service will provide transit to communities that have been underserved and help address concerns about equity.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

2.4 INVESTING IN PARATRANSIT

Access Link, NJ TRANSIT's paratransit service, provides over 6,500 daily trips with a fleet of 500 minibuses and sedans, but faces several challenges that affect service delivery:

- The size of the fleet has not kept up with ridership demand, resulting in increasing wait and ride times.
- Greater ridership demand also requires more staff to take reservations and dispatch rides. Access Link's current operations hub is too small to house the staff needed.
- Access Link currently leases its fleet maintenance facilities. To make the purchase of equipment and building customizations more cost effective, NJ TRANSIT is exploring a buy-and-build model for Access Link maintenance facilities.
- The planned deployment of zero-emission vehicles requires an investment in charging equipment to introduce the new fleet.

To address these issues and improve service, the Capital Plan has identified the following investments for Access Link.

ACCESS LINK FLEET MODERNIZATION & EXPANSION

This program would expand the current Access Link fleet, reducing both wait and trip times, and would replace vehicles when they age beyond their recommended service life.

Access Link is a critical service that customers across the State rely on to get them to and from their destinations. The investments highlighted in this Capital Plan would enable us to provide customers with service that is reliable, high quality, and efficient.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 3: Power a stronger and fairer New Jersey for all communities in the region

Goal 4: Promote a more sustainable future for our planet

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

2.5 PROGRAMMATICS: INVESTING IN A STATE OF GOOD REPAIR

To ensure that the transit system is maintained in a state of good repair and enhanced to meet evolving customer needs, standards and specifications, NJ TRANSIT has developed for each of the three modes—bus, rail and light rail—an annual budget for packages of recurrent smaller projects, which we call "programmatics." Programmatics are our way of verifying that these smaller but critical projects that are essential to the efficiency and reliability of the system are funded on a consistent ongoing basis, and maintain a priority position as part of the plan.

For the rail system, there are programmatics for elements of rail operations, such as electric traction, bridge repair and inspection, track and rail right-of-way rehabilitation, Meadowlands Maintenance Center modernization, and rail yard work.

The programmatics for light rail address similar categories of investment, including rail ties, ballast stone and routine station repairs of elevators, fencing and lighting.

For the bus system, programmatics address needs for garage roof and mechanical system replacements, vehicle overhaul programs and other equipment replacement. In many cases, the programmatic work would be executed by dedicated NJ TRANSIT staff experienced with these small recurring types of work. This approach would allow for expedited and efficient project delivery using in-house expertise.

This would fulfill the following goals:

Goal 1: Ensure the reliability and continued safety of our transit system

Goal 2: Deliver a high-quality experience for all our customers, with their entire journey in mind

Goal 5: Build an accountable, innovative and inclusive organization that delivers for New Jersey

FIGURE 2-17: KEY MOBILITY INNOVATION AREAS

Multi-mode Trip Planner	Smart Train & Bus	Video Analytics	Micropositioning
Combine all statewide transportation resources	Resilient communications - Multi-carriers	Make use of vast camera networks at stations and on vehicles	Indoor IoT positioning for garages, yards, and stations
Single App to plan, book and pay for a trip	Integrate all systems onboard	Real-time edge processing onboard	10cm accuracy real-time locations
Door to door trip plans	Expanded functionality for operations and WiFi for Passengers	Cloud portal for vendor analytics	Many new cell phone applications

2.6 INFORMATION TECHNOLOGY

NJ TRANSIT is investing in internal, business unit, and customer-facing Information Technology (IT) infrastructure to become a leader in the digital revolution in public transportation over the next five years. A set of projects to modernize our IT security, support, monitoring, and project management infrastructure will replace outdated systems, enhance the safety and security of our technology assets, and make our internal processes more efficient.

To reinforce the backbone of NJ TRANSIT operations, the IT program is focused on revolutionizing infrastructure and network capabilities that improve the customer and staff experiences. These projects will focus on disaster recovery to prevent data loss and minimize impacts on the organization and our customers. Providing infrastructure resiliency will ensure that there is no disruption at NJ TRANSIT's offices, rail/light rail stations and maintenance yards, bus terminals, garages and Access Link offices. We continue to implement top notch security solutions to protect business, personal information, work safety, website protection and spyware/adware protection. This will enable NJ TRANSIT to mitigate the risk of losing sensitive data, money and the trust of our customers. We are focused on building a vigorous project/program management office (PMO) and increasing business agility to monitor, manage and deliver projects on scope, on time and on budget. By adapting the best project/program portfolio management methodologies, rollout of PMO will unite our business units and keep everyone on track.

IT will support our business units in eradicating manual processes and implementing automation to develop operational efficiencies and increase productivity. Providing our staff with the latest tools will improve our customer service. Deploying enterprise asset management systems will enable critical assets to perform at maximum efficiency. An agency-wide data strategy will serve as a building block to comprehensively support data management across the organization and advance our business goals, objectives, and mission. Automation in vendor management, coupled with artificial intelligence, will improve contract oversight, mitigate risks and identify opportunities. Upgrading and enhancing our current human resources systems will allow us to automate the employee lifecycle and provide employees with self-service functionality. This will also allow our business partners to better serve NJ TRANSIT by automating workflows, collecting better data, eliminating paper processes, and increasing overall efficiencies.

FIGURE 2-18: IMPROVED NJ TRANSIT MOBILE APPLICATION

The IT program will continue to focus on customer-facing projects including enhancements to the NJ TRANSIT mobile application and a comprehensive trip planner database and App, which will make it easier for customers to plan, schedule and purchase tickets. Passenger facilities will have upgraded public announcement systems and ADA compatibility. A variety of technologies will increase reliability, improve safety and enhance rider experience with true-time arrival/departure information. Cashless payment, touchless ticketing, a reward program and smart train initiative delivering wi-fi and better cell service will elevate the customer experience.

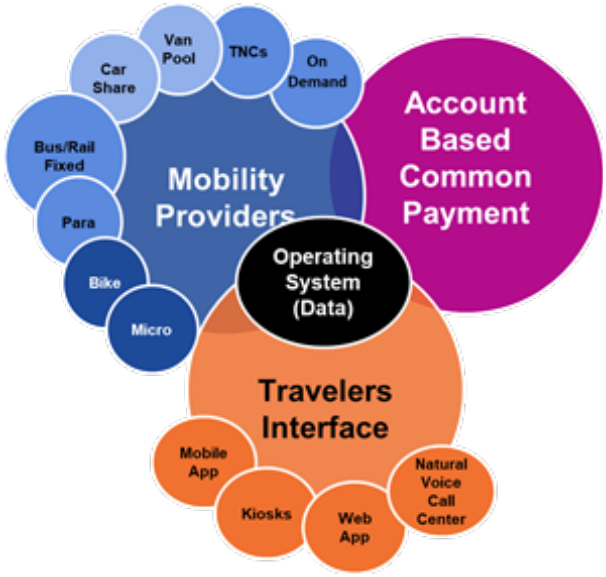
MULTI-MODE TRIP PLANNER AND COMMON PAYMENT SYSTEM

Mobility as a Service (MaaS) can debut in New Jersey with a smart-phone and website application providing round-the-clock access to door-to-door transportation. By collecting data on all mobility providers from bike-share, ride-hailing services, paratransit, and county services up to NJ Transit rail, light rail and bus, New Jersey residents can plan excursions without the need for a car, toll money and parking.

Unlike current planners, (e.g. Google) the proposed Statewide Multimode application will allow the customer to book and pay for end-to-end transport. The multimode trip planner will be an upgraded version of the current NJ Transit application. The Access Link App will be connected, but not subsumed, into the Multimode application during the early phase of development.

Multimode trip planning can be expected to increase ridership by eliminating last-mile/first-mile customer concerns. Day or night, there is no risk of being stranded. Costs are communicated up-front, reducing financial uncertainty. For some customers needing paratransit, the long lead-time required for Access Link transportation can be reduced to same-day service.

FIGURE 2-19: MULTI-MODE TRIP PLANNER



Access Link operating costs can be reduced by servicing ambulatory customers with lower cost third party services.

Sea-level rise will be affecting the coastlines of New Jersey before other areas of the east coast. From time to time, NJ Transit will need to adjust routes at high-tide and bad weather. This will be particularly acute in areas such as Atlantic City, Cape May, and Pennsville. The ability of the multimode trip planner to account for the temporary detours of routes will be highly valued.

SMART TRAIN/BUS – RESILIENT COMMUNICATIONS AND SAFETY

Project will use a public private partnership to fill the holes in the cellular coverage along the right of way. The private partner will act as a broker to generate revenue for new cellular deployments along the rail right-of-way and provide broadband 5G/WiFi infrastructure at stations. This will provide more bandwidth on board the trains, while approaching the stations and at the stations. It will allow automatic failover for onboard equipment from one carrier to another to avoid loss in communications with just one carrier.

The system will allow new broadband applications like video processing and Passenger WiFi onboard NJ Transit trains as has been a long-standing desire. NJTRANSIT developed a new business model to make the costs of deploying these systems to be not only affordable, but profitable for the state. We also rebranded the project to meet operational needs with the deployment by providing resilient communications onboard the vehicles and enhanced safety applications.

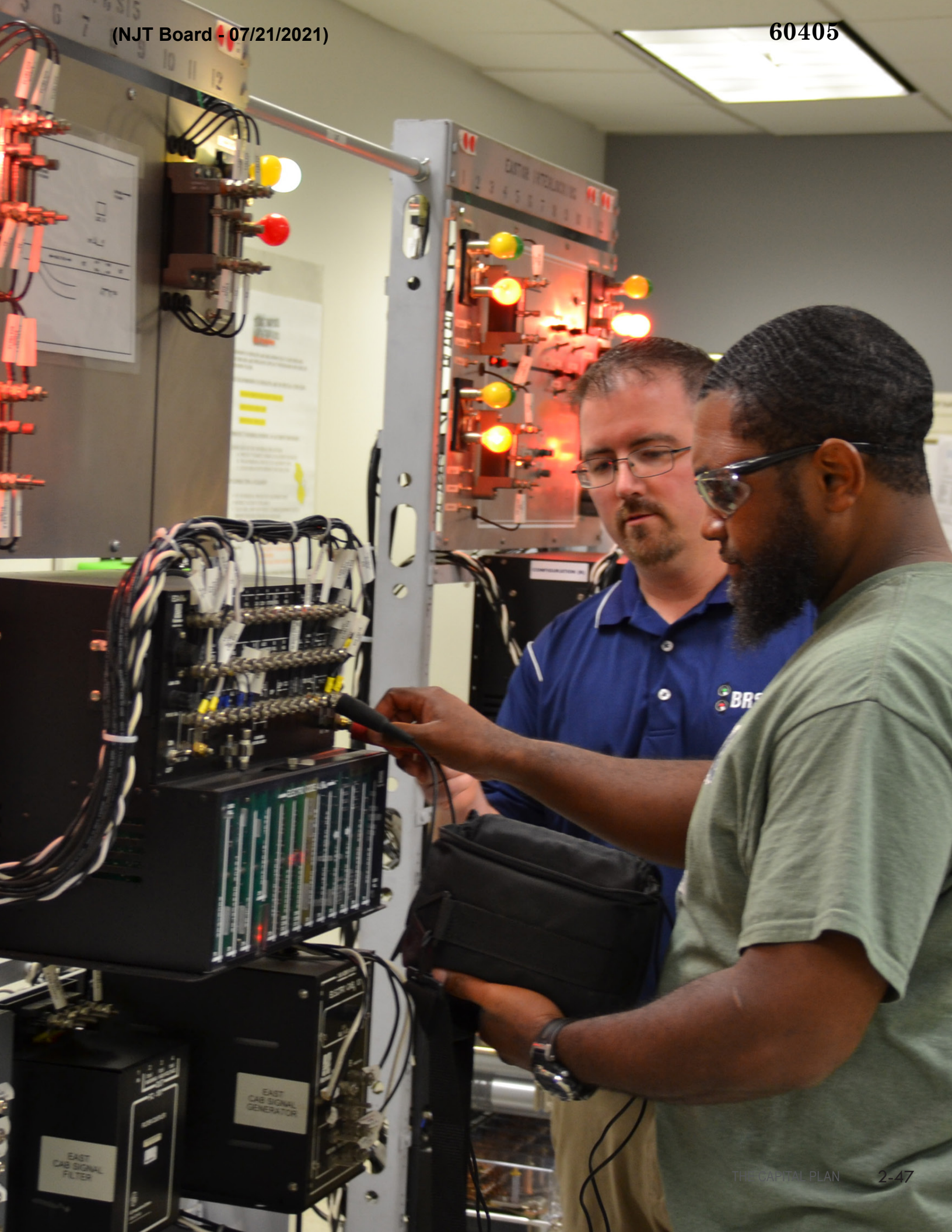
We will also be able to communicate directly to the customers on board in real time through the existing displays and, the public address system on board from the central MultiStation system will allow unprecedented levels of customer service through consistent real-time messaging.

A common communication system for resilient communications on our trains will utilize a new set of industry standards called ITxPT, i.e. Information Technology for Public Transit, that has standard specifications for all the IT systems on board the trains.

VIDEO ANALYTICS

NJTRANSIT has deployed thousands of cameras statewide at stations and onboard vehicles for homeland security initiatives. These cameras offer a wide range of applications that can take advantage of this installed infrastructure to deliver the latest in Artificial Intelligence (AI) applications in a wide range of areas along all the business lines. We were awarded a grant in 2020 to use video analytics to provide COVID Mask detection and vehicle occupancy for social distancing. We have also seen lower cloud storage costs open the ability to store longer periods of data to help with claims, police investigations and bus and rail operations.

We will be building a development portal to invite industry and academia to test new video analytic algorithms and concepts with actual transit data from stations and onboard vehicles.


EAST CAB SIGNAL GENERATOR
EAST CAB SIGNAL FILTER

2.7 TRANSIT-ORIENTED DEVELOPMENT

NJ TRANSIT is committed to working with local governments to advance transit-oriented development (TOD). Integrating transit improvements with street and sidewalk projects, parking improvements, and retail/housing/office developments would produce the best results for our communities. NJ TRANSIT would prioritize investments where we could leverage coordinated investments by private companies, not-for-profits, and cities and towns to achieve improved transit service and a stronger local economy and overall quality of life. We want to build on the success of the Transit Villages program. We also want to introduce techniques used in other cities that have enabled transit agencies, mayors and developers to combine efforts to link development with new rail stations and bus facilities. In New York City, Boston, suburban Virginia and Denver, for example, the compact development enabled by transit improvements has generated increased profits, land values and tax revenues. A share of these increments has been contributed to the cost of the transit infrastructure.

Successful implementation of TOD requires coordination between NJ TRANSIT and local governments, property owners and developers. The more that stakeholders are fully engaged, the more likely the success in addressing overall community needs. Working together can take several forms:

- If NJ TRANSIT owns parking lots or other undeveloped land, the land could be leased to developers and could serve as a sustainable revenue source. If parking is required, a garage could be integrated into new buildings.
- In other cases, zoning changes adopted by local government could allow for greater density in proximity to transit, providing an incentive to locate more housing and commercial uses near the station. Our project prioritization process would explicitly advance station rehabilitation and expansion projects where the host municipality would promote TOD with sustainable funding. Coordinating local zoning policy with local businesses and residents as well as property owners and developers would be particularly effective.
- We would explore opportunities to enter into deals with developers to pay for station improvements and maintenance in return for enhanced transit service.

In some cases, the development associated with the transit improvement would be focused on developing better pedestrian and other connections to a major institution, such as a hospital, university or sports venue. In other cases, the land use policy could focus on an extended corridor that would benefit from new BRT service.

Liberty State Park

FIGURE 2-20: PORT AUTHORITY BUS TERMINAL IN NEW YORK CITY
Source: google images

2.8 NJ TRANSIT'S INVOLVEMENT IN LARGE REGIONAL TRANSPORTATION PROJECTS

NJ TRANSIT is actively participating in the planning, development, and implementation of large transportation programs in the region that involve Amtrak, the Port Authority of New York and New Jersey (PANYNJ) and the Metropolitan Transportation Authority (MTA). These programs would expand the capacity of the regional transportation system to meet the needs of the growing region and would directly benefit our customers by accommodating our buses and trains, even though these projects generally involve facilities that are not owned or operated by NJ TRANSIT. Much of the funding for these programs of regional and national significance comes from sources other than the NJ TRANSIT capital program, but all users contribute to the capital costs. Because these programs are in the early stages of development, are not assets owned by NJ TRANSIT and, in some cases, are not expected to advance to construction in a five-year timeframe, they are not identified in the current Five-Year Capital Plan. Amtrak's Gateway Program includes a series of improvements to the nation's busiest 10-mile stretch of railroad tracks running south from New York City to Newark. These tracks provide 200,000 Amtrak and NJ TRANSIT trips every workday and carry 450 scheduled trains through the corridor. The program strives to increase the capacity and reliability of aging infrastructure that cannot meet growing demand and would enable trains to perform on schedule. The Gateway Program is a collaborative effort involving NJ TRANSIT, the PANYNJ, and the U.S. Department of Transportation. The program has many different elements. The Sawtooth Bridges and the Portal Bridge would be replaced, and a new Portal South Bridge and a new rail yard would be built.

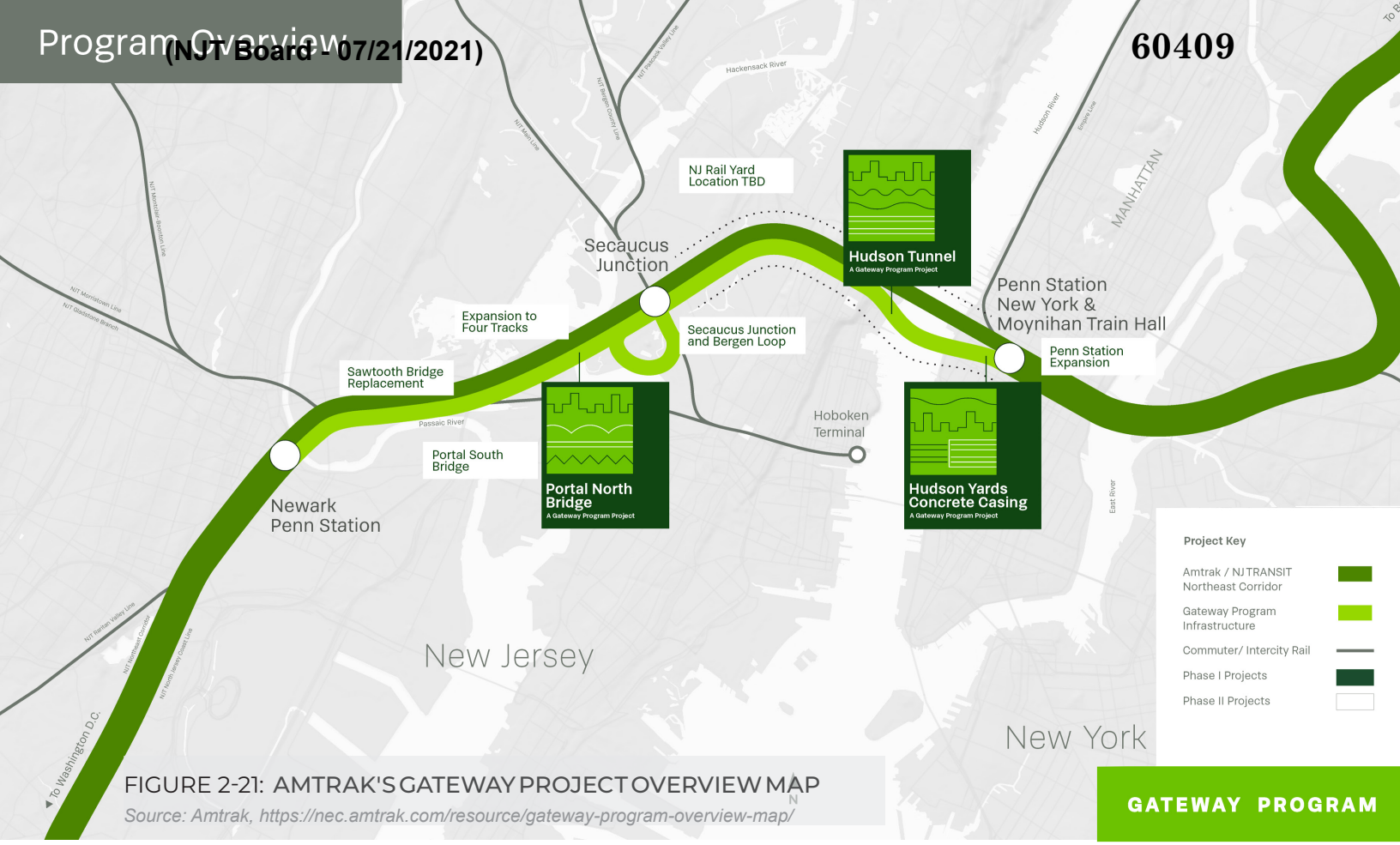


FIGURE 2-21: AMTRAK'S GATEWAY PROJECT OVERVIEW MAP

Source: Amtrak, https://nec.amtrak.com/resource/gateway-program-overview-map/

GATEWAY PROGRAM

A new track between Newark and New York City would create a continuous four-track right-of-way with increased capacity. Construction of a new tunnel under the Hudson River with two tracks connecting to New York Penn Station would allow for the rehabilitation of the existing 100-year-old North River Tunnels under the Hudson River that connect to New York Penn Station. Expansion of New York Penn Station would provide additional tracks and platforms and increase capacity. Finally, a new loop track at Secaucus Station connecting the Bergen, Main, Pascack Valley and Port Jervis rail lines to the Northeast Corridor would provide commuters with a one-seat ride to New York Penn Station.

NJ TRANSIT's investments in projects, such as the Portal Bridge, Newark Penn Station Circulation Improvements, the Westbound Waterfront Connection and the Hunter Avenue Flyover, would lay the groundwork for the Gateway Program. The program would double rail capacity into New York Penn Station. NJ TRANSIT customers would benefit from more-frequent service, less-crowded trains, more-reliable schedules, and new platform and concourse space at New York Penn Station. Empire State Development is scheduled to complete Moynihan Station in late 2020. At that time, Amtrak would relocate its New York Penn Station operations into Moynihan Station, which is in the Farley Post Office Building directly to the west of New York Penn Station over the existing station platforms and tracks. Space at New York Penn Station vacated by Amtrak would become available for use by NJ TRANSIT and would provide an opportunity to ease congestion, speed train loading and unloading, and would provide improved waiting areas for NJ TRANSIT passengers.

FIGURE 2-22: NJ TRANSIT WAITING AREA AT NEW YORK PENN STATION

The PANYNJ is advancing the design and environmental review of a new Port Authority Bus Terminal to replace the existing facility on West 42nd Street in Manhattan. The new terminal would dramatically increase the ability to accommodate NJ TRANSIT's projected growth in bus service to meet growing demand, reduce crowding and waiting time for buses, and provide bus storage and staging areas to improve the efficiency and scale of commuter bus operations. Our customers would benefit from a new state-of-the-art facility that would have vastly improved public spaces and amenities.

Amtrak's rehabilitation of the East River Tunnels that connect New York Penn Station to Sunnyside Yard in Queens would ensure that NJ TRANSIT can continue to use the tunnels to access the rail yard and store trains during the day to allow for timely service back to New Jersey during the evening peak period.

2.9 DEVELOPMENT OF THE CAPITAL PLAN

For the NJT2030 Strategic Plan, a set of goals were developed to define agency direction (see Figure 2-23). The goals were focused on NJ TRANSIT as an agency and organization, to provide direction for institutional change. For the Capital Plan, Capital Performance Indicators were established to drive the evaluation and implementation of infrastructure programs and projects for the next 5-20 years in furtherance of the NJT2030 goals.

Each project in this Capital Plan was assessed using the Capital Performance Indicators. The Capital Performance Indicators guide our planning process and provide structure to the qualitative and quantitative analysis conducted to prioritize projects included in the Capital Plan.

These Capital Performance Indicators flow from NJ TRANSIT's Strategic Goals—but focus on evaluation and delivery of projects:

State of Good Repair

Repair or rehabilitate facilities so that they can operate at a safe and satisfactory level of performance or modernize facilities to meet current industry standards.

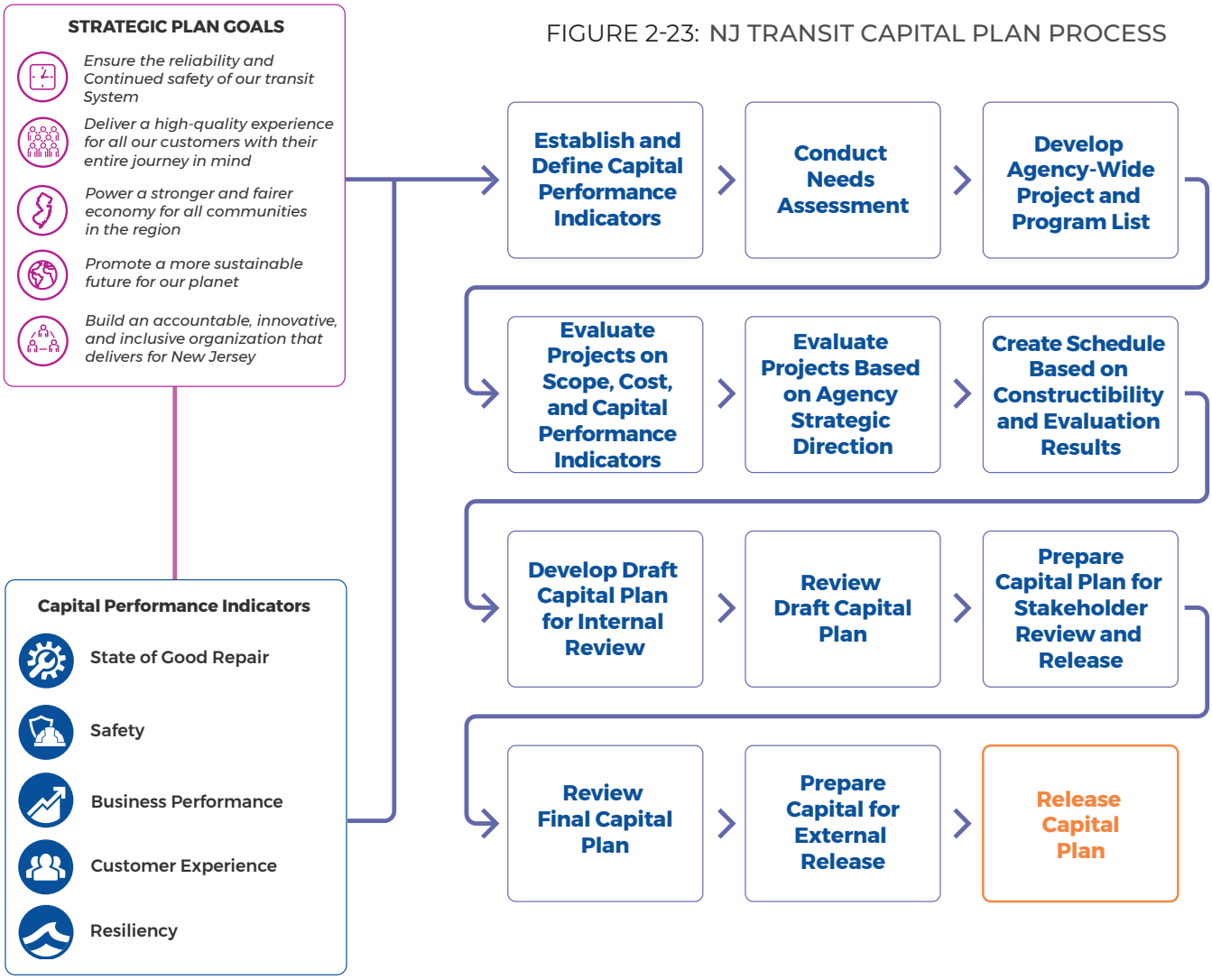
Safety

Provide a safe environment for customers and employees by incorporating industry best practices for safety and security at transit facilities and on-board transit vehicles.

Resiliency

Ensure NJ TRANSIT is a dependable and resilient transportation network by investing in adaptable solutions for the evolving profile of natural and man-made risks and protecting existing infrastructure.

FIGURE 2-23: NJ TRANSIT CAPITAL PLAN PROCESS



Customer Experience

Provide customers with a positive transit experience by being responsive to the ever-changing needs and expectations of customers.

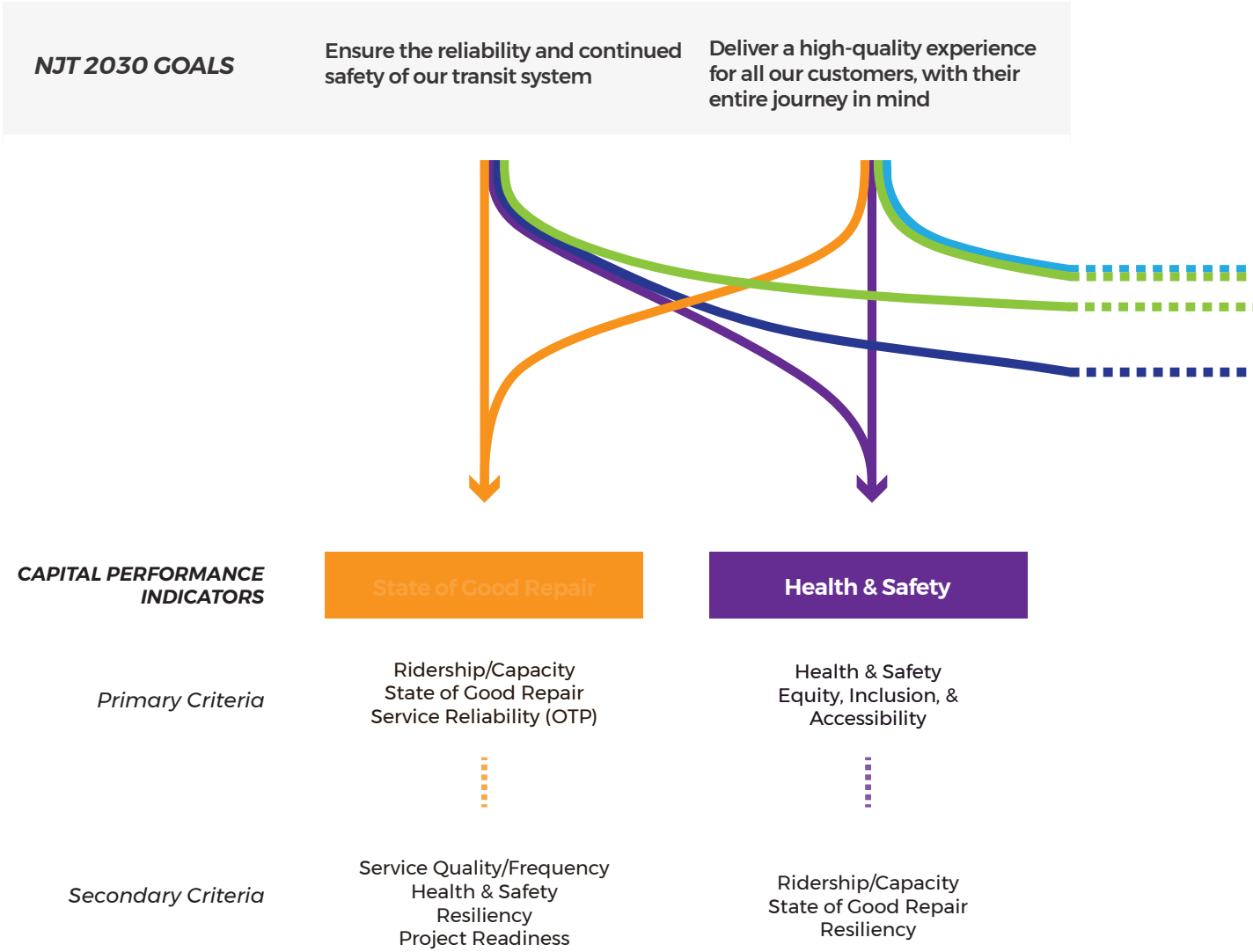
Business Performance

Ensure NJ TRANSIT's ability to provide service into the future by investing in opportunities to improve financial sustainability. These could include real estate and value capture opportunities, reducing operating costs or increasing ridership revenue.

PROJECT PRIORITIZATION PROCESS

After establishing the Strategic Goals, NJ TRANSIT developed a needs assessment with staff at all levels of each of the operating groups. This assessment was supported by a team of engineers, planners, and economists that reviewed these needs and assisted in using them to identify a comprehensive list of projects and programs designed to enable NJ TRANSIT to achieve its goals and satisfy the Capital Performance Indicators.

FIGURE 2-24: THE RELATIONSHIP BETWEEN THE STRATEGIC GOALS AND CAPITAL PERFORMANCE INDICATORS AND THEIR CRITERIA



This process included an assessment of each project and program's significance in the larger scope of NJ TRANSIT's goals and operations, with a particular focus on how each would benefit our customers, based in part on customer surveys.

The NJ TRANSIT team identified 13 criteria for evaluating the benefits of the projects and programs in order to rank the projects and programs to determine which are most effective at advancing NJ TRANSIT's goals and Capital Performance Indicators. Figure 2-24 illustrates the relationship between the Strategic Goals and the criteria.

The criteria are as follows:

State of Good Repair

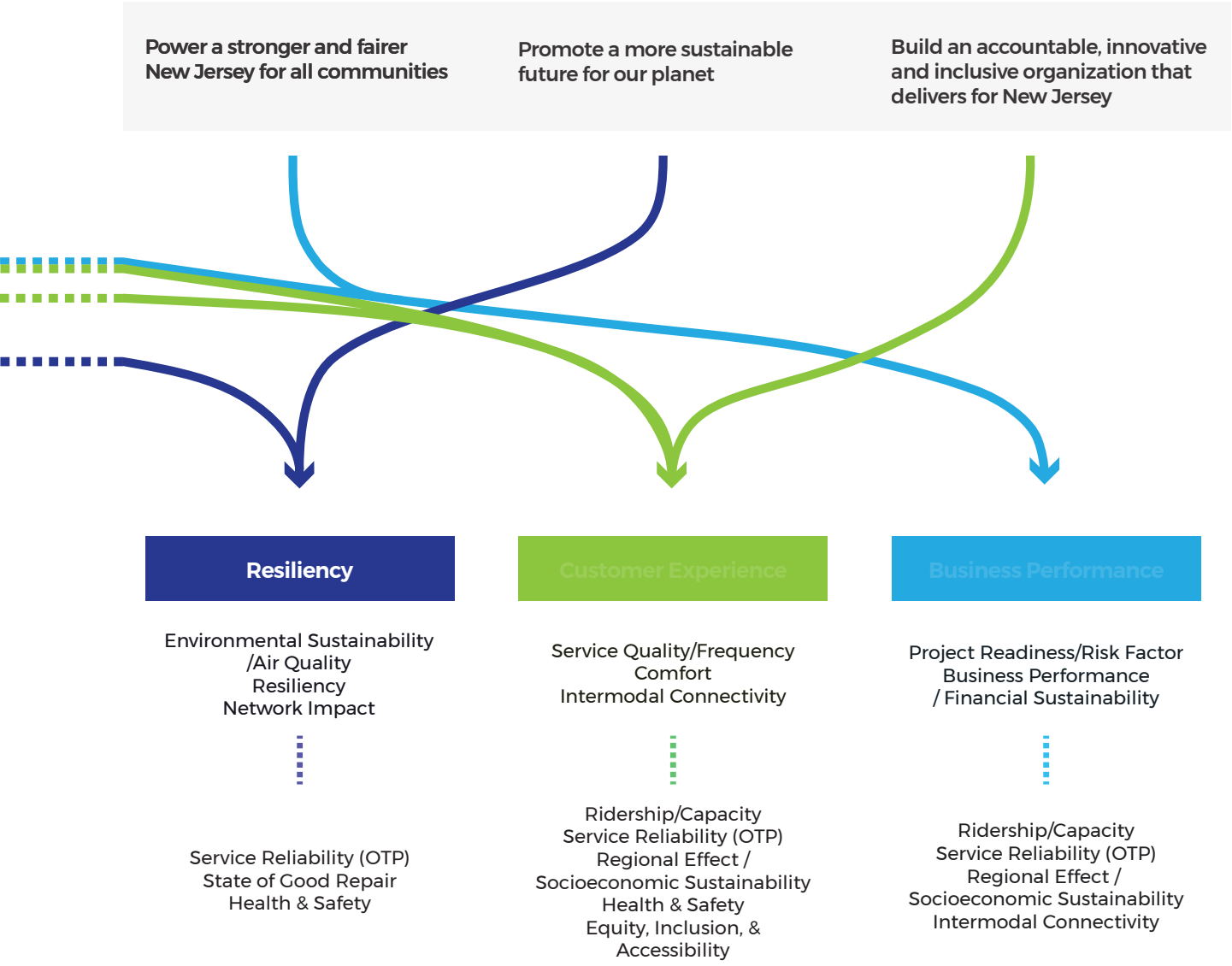
Would the project repair or replace an asset that is past its useful life? Is it obsolete or in a state of disrepair?

Health & Safety

Would the project improve the safety of our customers and/or employees?

Service Reliability/On-Time Performance

Would the project improve the reliability of the transit system, in particular, on-time performance?



Business Performance/Financial Sustainability

Would the project enable NJ TRANSIT to operate more efficiently by reducing costs or enhancing revenue generation?

Service Quality/Frequency

Would the project result in an increase in service frequency?

Equity, Inclusion, & Accessibility

Would the project improve accessibility to the transit system? This includes improving not only for people with disabilities, but also improving access for low-income populations, seniors, and the young—people who are transit dependent because they do not have access to a car or choose otherwise not to have one.

Ridership/Capacity

Would the project produce an increase in transit ridership or transit capacity?

Regional Effect/Socioeconomic Sustainability

Would the project have a broad impact on a line or on the entire system, or would its impact be limited to its immediate area?

Resiliency

Would the project mitigate risks, enhance the ability of the transit system to continue to operate in extreme weather conditions, floods, black-outs or other disasters?

Environmental Sustainability/Air Quality

Would the project result in an improvement in air quality by promoting the use of cleaner fuels, providing convenient and attractive alternatives to private automobiles, or otherwise reducing greenhouse gas and particulate emissions?

Comfort

Would the project make transit service more comfortable and therefore more attractive for current and new customers?

Intermodal Integration

Would the project help integrate differing modes of transportation to enhance transit service?

Project Readiness/Risk Factor

How quickly could the project be delivered? Is it in the planning phase, in design or in construction?

After all projects were scored, they were ranked, and the overall ranking of their benefits were compared to their capital costs to provide an understanding of the value created for the dollars spent. It is important to note that this ranking is designed to inform decision-making by NJ TRANSIT, not to replace judgments that take into account the complexity of the State of New Jersey, the transit system and the needs of its customers (none of which can be reduced to a series of numbers).

NJ TRANSIT used the results, together with project specific information about constructability and schedule, to inform its recommendations about how to prioritize projects in the five-year capital program.

This recommendation was based not only on the specific merits of individual projects and programs, but on the overall needs of the system, the value for the dollar invested in each project, how quickly the most valuable projects can be delivered, and on an understanding how the projects and programs work together to produce the best value for the transit system, for our customers, and for the state as a whole. With the understanding that it is impossible to construct all the projects in the program at once, NJ TRANSIT arrayed the projects and programs by expected expenditure per year. Projects that had the highest scores were promoted for early action.

Projects that addressed the most dire need for state of good repair attention were given highest priority. Simpler projects and projects already in development that could be enacted quickly and had demonstrated value in improving the performance and reliability of the transit system were identified and, in some cases, are already in progress. Lastly, large scale projects that can take years of planning and development were programmed for the first steps in the long road to realize their benefits.

All these projects were then subjected to a high-level scheduling evaluation to balance the need to quickly deliver projects that have impact and the limits implicit when working on highly active and overburdened infrastructure. The plan that emerged from this process is intended to be the first of a series of five-year Capital Plans that would be renewed every year. Since some of the larger projects or programs may take more than five years to execute, it is expected that these projects may take as long as a decade to complete. For some programs, certain projects are interdependent and must proceed in sequence. For this reason, even though the Capital Plan is based on a five-year schedule, a longer term outlook has been organized so that major projects and programs can be interwoven with projects that can be delivered in a shorter time frame.

ITEM 2107-48: NJ TRANSIT FISCAL YEAR 2022 GRANT PROGRAMS: LOCAL TRANSPORTATION FOR SENIOR CITIZENS, PERSONS WITH DISABILITIES, RURAL AND LOW-INCOME RESIDENTS

WHEREAS, NJ TRANSIT administers a variety of Federal and State grant programs dedicated to maintenance and development of coordinated community-based transportation services that benefit senior citizens, persons with disabilities, rural and small urban area residents; and

WHEREAS, the services funded through these grants provide non-emergency medical, employment, food shopping, education, and other life-enhancing transportation that include, but are not limited to, demand-responsive, route deviation services, and community shuttles; and

WHEREAS, NJ TRANSIT requires that grant subrecipients make every effort to coordinate services in order to maximize efficiency, and feed existing bus and rail services when possible; and

WHEREAS, NJ TRANSIT also monitors subrecipients for compliance with relevant Federal and State laws and regulations; and

WHEREAS, these programs assist a variety of private non-profit organizations, counties, municipalities, county improvement authorities, and NJ TRANSIT in meeting the mobility needs of New Jersey's senior citizens, person with disabilities, low-income and rural residents; and

WHEREAS, the New Jersey Senior Citizen and Disabled Resident Transportation Assistance Act provides funding derived from the Casino Revenue Fund for the counties or their designees to provide community-based transportation services, as well as for NJ TRANSIT to administer the program, to provide technical assistance to the counties, and accessible enhancement services or accessible improvements to fixed route systems; and

WHEREAS, the Federal Transit Administration (FTA) makes available, under the Section 5311 Rural and Small Urban Areas program, 80 percent of the non-operating assistance and 50 percent of the operating assistance to improve public transit services in rural areas, with NJ TRANSIT providing one-half of the local match; and

WHEREAS, the FTA requires 15 percent of a State's allocation of Section 5311 Rural Program to be spent for the development and support of rural intercity bus transportation unless the State certifies that such intercity bus needs of the State are adequately met; and

WHEREAS, the FTA makes available, under Section 5311(b)(3) Rural Transit Assistance Program (RTAP), funding without a matching fund requirement, for training and technical assistance to FTA Section 5311, FTA Section 5310, and Casino Revenue Fund sub-recipients; and

WHEREAS, the FTA makes available, under Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program, 80 percent of funding for capital purchases for private non-profit organizations and/or designated public bodies to transport seniors and individuals with disabilities which includes vehicles and/ or mobility management projects, with NJ TRANSIT providing the 20 percent match, for vehicles and/or equipment; and

WHEREAS, up to 35 percent of the funds FTA makes available under Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program may be used for operating assistance, with 50 percent local match to be provided by the sub-recipient; and

WHEREAS, the New Jersey Department of Human Services has provided funding to address the needs of low-income customers transitioning from welfare and/or seeking employment and this funding supplements NJ TRANSIT's New Jersey Job Access and Reverse Commute (NJ-JARC) program that has succeeded the Federal JARC program; and

WHEREAS, the FTA makes funds available under specially-dedicated Congressional appropriations, Congestion Mitigation Air Quality (CMAQ), Section 5307 Small Urban Cities, and Section 5309 Major Capital Investments, for the provision of operating, planning assistance and/or capital assistance with various matches provided by state, local agencies or toll credit for capital projects or equipment and/or local transit services that address the needs of community transit services; and

WHEREAS, the Senior Citizen and Disabled Resident Transportation Assistance Program Funding Distribution for the year 2022 is shown in Exhibit A; and

WHEREAS, the Section 5311 Rural and Small Urban Areas Program projected for the year 2022 is shown in Exhibit B; and

WHEREAS, the Grant Program totals for the year 2022 is shown in Exhibit C; and

WHEREAS, the Funding Sources for the year 2022 is shown in Exhibit D;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is hereby authorized to execute, extend or modify contracts to implement the FY2022 Senior Citizen and Disabled Resident Transportation Assistance Program as set forth in Exhibit A for a total program amount of $22,310,000, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 FTA Section 5311 Rural and Small Urban Areas program, as set forth in Exhibit B, in the amount of $5,534,844 which includes $3,534,844 in Federal funds and $2,000,000 as the NJ TRANSIT share of the local match, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to execute all appropriate agreements and contracts and to take all other steps necessary to implement the FY2022 Section 5311 Rural Intercity Program for a total program amount of $666,969, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 FTA Section 5311(b)(3) Rural Transit Assistance Program in an amount up to $132,157 Federal funds at no cost to NJ TRANSIT, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and leases to implement the FY2022 FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program for $9,600,000 which includes $7,850,000 in Federal funds and $1,750,000 as the NJ TRANSIT share of the local match, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and contracts and to take all other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for $4,500,000 in NJ TRANSIT funds, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and contracts and to take other steps to implement the FY2022 New Jersey Jobs Access and Reverse Commute (NJ-JARC) program for up to $1,000,000 in additional funds from the State of New Jersey for a total NJ-JARC program cost of $5,500,000, subject to the availability of funds; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and contracts and to take other steps to implement the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 and the American Rescue Plan Act of 2021, in amounts to be determined at no cost to NJ TRANSIT; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is hereby authorized to execute all appropriate agreements and contracts and to take all other steps to implement any specially-dedicated Congressional appropriations, FTA Section 5307 Small Urban Cities, FTA Section 5309 Major Capital Investments, Congestion Mitigation Air Quality (CMAQ), and other local projects including funds which will be flexed into ongoing FTA programs under the FY2022 budget for $6,000,000, subject to the availability of funds.

Exhibit A
SENIOR CITIZEN AND DISABLED RESIDENT TRANSPORTATION ASSITANCE PROGRAM FUNDING DISTRIBUTION, 2022

COUNTY	2021 BUDGET	2022 BUDGET
Atlantic	$620,823	**$612,729.00**
Bergen	$1,685,543	**$1,657,504.00**
Burlington	$999,446	**$986,417.00**
Camden	$1,061,856	**$1,048,013.00**
Cape May	$421,664	**$414,649.00**
Cumberland	$421,664	**$414,649.00**
Essex	$1,466,353	**$1,447,237.00**
Gloucester	$583,833	**$576,221.00**
Hudson	$1,068,140	**$1,054,216.00**
Hunterdon	$421,664	**$414,649.00**
Mercer	$744,531	**$734,825.00**
Middlesex	$1,590,333	**$1,569,602.00**
Monmouth	$1,404,385	**$1,386,078.00**
Morris	$1,096,419	**$1,082,125.00**
Ocean	$1,685,543	**$1,657,504.00**
Passaic	$972,347	**$959,671.00**
Salem	$421,664	**$414,649.00**
Somerset	$647,150	**$638,714.00**
Sussex	$421,664	**$414,649.00**
Union	$1,078,814	**$1,064,750.00**
Warren	$421,664	**$414,649.00**
NJ TRANSIT	**$3,394,500**	**$3,346,500**
TOTAL	**$22,630,000**	**$22,310,000**

100% State funds from the Casino Revenue Tax funds.

EXHIBIT B
Section 5311 Rural and Small Urban Areas Program
Projected FY 2022

	FEDERAL (A)	STATE (B)*	Total Budget (A+B)	LOCAL (C)**	TOTAL Program(A+B+C)
NORTHERN REGION					
Morris County	$269,193	$153,203	**$422,396**	$153,203	$575,598
Passaic County 1 (West Milford)	$0	$0	**$0**	$0	$0
Sussex County	$579,908	$327,911	**$907,819**	$327,911	$1,235,729
Warren County	$431,261	$243,540	**$674,801**	$243,540	$918,341
CENTRAL REGION					
Hunterdon County 2	$462,023	$259,921	**$721,944**	$259,921	$981,865
Mercer County	$66,165	$37,153	**$103,318**	$37,153	$140,470
Middlesex County 1	$0	$0	**$0**	$0	$0
Monmouth County	$122,609	$68,840	**$191,449**	$68,840	$260,289
Ocean County 1	$0	$0	**$0**	$0	$0
Somerset County	$97,121	$54,538	**$151,659**	$54,538	$206,197
SOUTHERN REGION					
Atlantic County 2	$348,728	$197,622	**$546,350**	$197,622	$743,972
Burlington County	$306,568	$174,216	**$480,784**	$174,216	$655,000
Camden County	$43,450	$24,144	**$67,594**	$24,144	$91,738
Cape May County	$88,003	$50,979	**$138,982**	$50,979	$189,961
Cumberland County	$388,501	$219,020	**$607,521**	$219,020	$826,541
Gloucester County	$124,719	$71,663	**$196,382**	$71,663	$268,044
Salem County	$206,595	$117,252	**$323,847**	$117,252	$441,099
TOTAL	**$3,534,844**	**$2,000,000**	**$5,534,844**	**$2,000,000**	**$7,534,844**

CATEGORY	FEDERAL	STATE *	LOCAL **	TOTAL
Operating	**$3,297,370**	**$1,900,000**	**$1,900,000**	**$7,097,370**
Non-Operating				
Administation	**$237,474**	**$100,000**	**$100,000**	**$437,474**
Capital	**$0**	**$0**	**$0**	**$0**
Total 2022 program	**$3,534,844**	**$2,000,000**	**$2,000,000**	**$7,534,844**

*** Provided by NJ Transit Capital and operating budgets**
**** Provided by local recipient.**

1. Middlesex, Passaic and Ocean Counties are currently inactive projects.
2. Atlantic and Hunterdon additional funds for innovation project

Exhibit C
2022 GRANT PROGRAM TOTALS

	FY2020 AUTHORIZATION	FY2021 AUTHORIZATION	FY2022 REQUESTED AUTHORIZATION
SCDRTAP	$ 18,508,000	$ 22,630,000	$ 22,310,000
Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program	$ 9,400,000	$ 9,500,000	$ 9,600,000
Section 5311 Rural and Small Urban Area Program	$ 5,488,315	$ 5,541,261	$ 5,534,844
Section 5311 Intercity Program	$ 657,663	$ 668,252	$ 666,969
Section 5311(b)(3) Rural Transit Assistance Program	$ 130,339	$ 132,157	$ 132,157
NJ-JARC	$ 5,300,000	$ 5,500,000	$ 5,500,000
Other (Small Urban, CMAQ) [1]	$ 6,000,000	$ 6,000,000	$ 6,000,000
TOTAL	**$ 45,484,317**	**$ 49,971,670**	**$ 49,743,970**

[1] Other includes CMAQ funding for both operating and capital expenditures, which is allocated by MPOs. For example, NJTPA has allocated funding for a “last mile shuttle” program that provides local entities with three years of operating assistance for shuttle service that connects with main line transit. Also included in this category is Section 5307 funding for on-going services in Cumberland County, and operating match for continuation of WHEELS route by Somerset County and East Windsor train shuttle.

Exhibit D
FY2022 FUNDING SOURCES

PROGRAM	FEDERAL	NJ TRANSIT MATCH – CAPITAL	NJ TRANSIT MATCH – OPERATING	OTHER FUNDING	CASINO REVENUE FUND	TOTAL
Senior Citizen and Disabled Resident Program					$ 22,310,000	**$ 22,310,000**
Section 5310 (projected)	$ 7,850,000	$ 1,750,000				**$ 9,600,000**
Section 5311 Counties	$ 3,534,844	$ 100,000	$ 1,900,000			**$ 5,534,844**
Section 5311 Intercity	$ 666,969					**$ 666,969**
Section 5311(b)	$ 132,157					**$ 132,157**
NJ JARC			$ 4,500,000	$ 1,000,000		**$ 5,500,000**
Other	$ 5,350,000		$ 650,000			**$ 6,000,000**
TOTAL	**$17,533,970**	**$ 1,850,000**	**$ 7,050,000**	**$ 1,000,000**	**$ 22,310,000**	**$ 49,743,970**

ITEM 2107-49
COMMUNITY MOBILITY AND LOCAL PROGRAMS BUS PURCHASE

The Community Mobility and Local Programs Bus Purchase will provide mobility access vehicles (accessible minivans) to subrecipients for transportation for senior citizens and people with disabilities in New Jersey.

- Staff seeks authorization to enter into NJ TRANSIT Contract No. 20-008 with Rohrer Enterprises, Inc. DBA Rohrer Bus Sales of Trenton, New Jersey, for the purchase of seventy-five (75) mobility access (accessible minivans) vehicles in an amount not to exceed **$3,518,399.00**, plus five percent for contingencies, for a total authorization of **$3,694,319.00**, subject to the availability of funds.

ITEM 2107-49
COMMUNITY MOBILITY AND LOCAL PROGRAMS BUS PURCHASE

- NJ TRANSIT purchases vehicles on behalf of subrecipients awarded vehicles in pass-through FTA programs, including:
  - Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities yearly competitive program. These vehicles are used in services designed to meet the needs of senior citizens and people with disabilities.
  - Congestion Mitigation and Air Quality (CMAQ) Flex. Awarded by MPOs in their Local Initiatives program. These CMAQ awarded vehicles are flexed to the Section 5310 program and will be used to meet the needs of senior citizens and people with disabilities.
  - Next slide is photo of the mobility access (accessible minivans) vehicles to be purchased on behalf of subrecipients in this procurement.

ITEM 2107-49
COMMUNITY MOBILITY AND LOCAL PROGRAMS BUS PURCHASE

ITEM 2107-49: COMMUNITY MOBILITY AND LOCAL PROGRAMS PURCHASE OF SEVENTY-FIVE (75) MOBILITY ACCESS VEHICLES

WHEREAS, the State of New Jersey has applied for and funded local transit services throughout the state through a variety of Federal Transit Administration (FTA) grant programs; and

WHEREAS, funding is available to purchase vehicles for local transportation programs under FTA Section 5310, and CMAQ Flex; and

WHEREAS, NJ TRANSIT'S Technical Evaluation Committee has reviewed the vendor proposals received for the provision of purchase of Seventy-Five (75) Mobility Access Vehicles; and

WHEREAS, upon completion of the competitive procurement process, it has been determined that Rohrer Enterprises, Inc. DBA Rohrer Bus Sales of Trenton, New Jersey, submitted the proposal that provides the best value and is in the best interest of NJ TRANSIT;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to enter into NJ TRANSIT Contract No. 20-008 with Rohrer Enterprises, Inc. DBA Rohrer Bus Sales of Trenton, New Jersey, for the purchase of thirty-five (35) mobility access vehicles at a cost of $1,556,000.00, plus five percent contingencies, subject to the availability of funds and Board approval of the Local Programs annual Board item; and

BE IT FURTHER RESOLVED that the Chair or President & CEO is authorized to exercise the options to extend NJ TRANSIT Contract No. 20-008 to purchase the remaining forty (40) vehicles over the four-year option period in accordance with the Request for Proposal and the vendor's proposal, at a cost not to exceed $508,900.00 for each additional 12-month period, plus five percent for contingencies, subject to the approval of funds and Board approval of the Local Programs annual Board item.

TRANS-HUDSON INTERSTATE BUS SURVEY

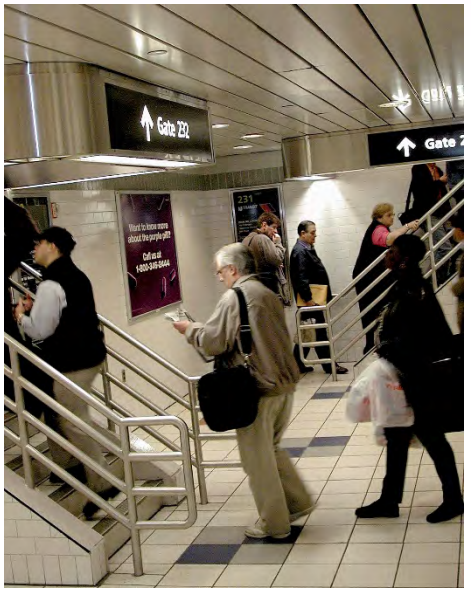
Business Analysis and Research

July 2021

NJTRANSIT
The Way To Go.

TRANS-HUDSON INTERSTATE BUS SURVEY

- Travel survey of interstate NJ TRANSIT & private bus carrier customers
  - Travel flow data (origins & destinations, access & egress modes, trip frequency, trip purpose, etc.)
  - Socio-economic characteristics
  - Essential data for future service & capital planning
- Last survey conducted about 10 years ago
- Survey to be funded by:
  - NJ TRANSIT - $748,789 plus five (5) percent contingency
  - North Jersey Transportation Planning Authority (NJTPA) - $750,000
  - Port Authority of NY & NJ (PANYNJ) - $500,000



TRANS-HUDSON INTERSTATE BUS SURVEY

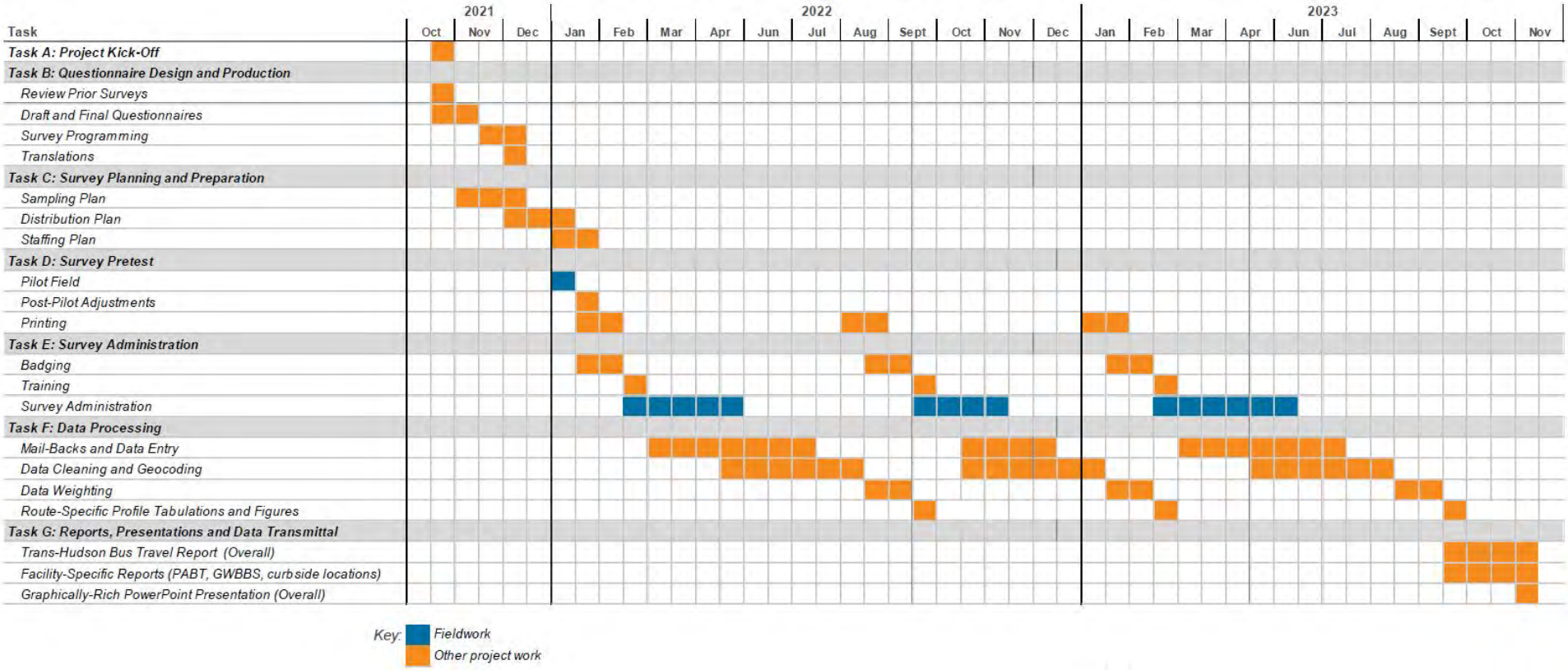
- Scope of work follows a best-practice, origin-destination survey approach
  - Printed questionnaires
  - Distributed by Consultant survey agents to customers
  - Customers can complete the survey onboard, return the survey by mail, or complete it online

- Start with logistics planning, survey preparation, field visits, etc.
- Surveys conducted in spring and fall of 2022 and 2023
- Schedule is flexible and allows for post-COVID ridership recovery

NJTRANSIT The Way To Go

TRANS-HUDSON INTERSTATE BUS SURVEY

DRAFT SCHEDULE – Subject to Change



Deliverables include Trans-Hudson Travel report (overall),facility specific reports a presentation of the findings, the full clean dataset for our transportation model and other regional models, and travel profiles by bus route.

NJTRANSIT The Way To Go

TRANS-HUDSON INTERSTATE BUS SURVEY

- Project supports several programs including:
  - Validating/updating forecasting models
  - PABT, GWBBS, & Trans-Hudson bus system improvements
  - Advancing bus operations and regional capital projects
  - Bus fleet planning
  - Title VI analysis and demographic market research data
  - Documenting private carrier ridership
- 42.23 percent DBE utilization commitment set by RSG

NJTRANSIT The Way To Go

ITEM 2107-50: TRANS-HUDSON INTERSTATE BUS SURVEY

WHEREAS, NJ TRANSIT surveys its customers that use interstate bus routes on an approximate 10-year cycle to understand the characteristics of the customers and their travel patterns; and

WHEREAS, NJ TRANSIT and its study partners in The Port Authority of New York and New Jersey and North Jersey Transportation Planning Authority use such information to discern improved mobility options to customers traveling throughout the public transit network, including the Trans-Hudson market; and

WHEREAS, NJ TRANSIT uses such information to provide options to its customers that will improve NJ TRANSIT's ability to address customer preference and demand while also improving reliability and service delivery; and

WHEREAS, authorization of funds for this Professional Services Contract at this time will provide NJ TRANSIT with the necessary information as may be used to develop new mobility options and reorient service strategies to align with pandemic and post-pandemic travel changes; and

WHEREAS, upon completion of a competitive procurement process, it was determined that Resource System Group, Inc. of White River Junction (RSG), Vermont, submitted the most qualified, responsive, and responsible proposal; and

WHEREAS, The NJ TRANSIT Office of Business Development (OBD) assigned a Disadvantaged Business Enterprise (DBE) goal of 25 percent for this project. OBD reviewed and approved the 42.23 percent DBE utilization commitment set by RSG; and

WHEREAS, the State of New Jersey Transportation Trust Fund is the anticipated source of funding for this project; and

WHEREAS, NJ TRANSIT has secured financial commitments from The Port Authority of New York and New Jersey in the amount of $500,000 to reimburse NJ TRANSIT in part for the study expense; and

WHEREAS, NJ TRANSIT has secured financial commitments from the North Jersey Transportation Planning Authority in the amount of $750,000 to reimburse NJ TRANSIT in part for the study expense; and

WHEREAS, should travel patterns remain sluggish, or unforeseen public health emergencies reoccur, the project schedule contains flexibility to adjust the pace of the project accordingly; and

WHEREAS, funding is available;

NOW, THEREFORE, BE IT RESOLVED, that the Chair or President & CEO is authorized to enter into a NJ TRANSIT Contract No. 20-054 with Resource Systems Group, Inc., of White River Junction, Vermont, for the Trans-Hudson Interstate Bus Survey, subject to the availability of funds.

ITEM 2107-51: EXECUTION OF CONTRACT 20-084 FOR THE PROVISION OF ACCESS LINK SERVICE IN REGION 4 (MERCER, MIDDLESEX, MONMOUTH, AND NORTH OCEAN COUNTIES)

WHEREAS, in July 1990, the Americans with Disabilities Act (ADA) was signed into law requiring public entities operating fixed route transportation systems to provide paratransit services for individuals with disabilities; and

WHEREAS, a Request for proposal, RFP 20-084, was issued to seek competitive proposals from paratransit carriers to provide these services; and

WHEREAS, the NJ TRANSIT Office of Business Development established a three percent SBE Category 6 goal for this contract; and

WHEREAS, NJ TRANSIT'S Technical Evaluation Committee has reviewed the vendor proposals received for the provision of Access Link service in Region 4; and

WHEREAS, upon completion of the competitive procurement process, it has been determined that First Transit, Inc. submitted the proposal that provides the best value and is in the best interest of NJ TRANSIT; and

WHEREAS, First Transit, Inc. has been operating the service under contract with NJ TRANSIT since February 9, 2009; and

WHEREAS, providing uninterrupted Access Link service for the provision of ADA paratransit is a requirement of the ADA and Federal Government; and

WHEREAS, the procurement included two option periods required to be priced by the proposers and to be exercised at NJ TRANSIT's sole discretion. Staff will seek further authorization, at a later date, should NJ TRANSIT decide to exercise these options with First Transit, Inc. of Cincinnati, Ohio, to operate Access Link Region 4 service for two separate 24-month option periods for Fiscal Year 2026 through Fiscal Year 2027 and Fiscal Year 2028 through Fiscal Year 2029;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to enter into NJ TRANSIT Contract No. 20-084 with First Transit, Inc. of Cincinnati, Ohio, to operate Access Link service in Region 4 (Mercer, Middlesex, Monmouth, and North Ocean Counties) for a 36-month base contract period for Fiscal Year 2022 through Fiscal Year 2025 at a cost not to exceed $45,930,576, plus five percent contingencies, for a total contract authorization of $48,227,105, subject to the availability of funds and Board approval of NJ TRANSIT's Operating Budget.

ITEM 2107-52: INFORMATION TECHNOLOGY: AWARD OF CONTRACT FOR ORACLE SOFTWARE MAINTENANCE AND SUPPORT TO MYTHICS FOR DATABASE INFRASTRUCTURE AND APPLICATIONS

WHEREAS, NJ TRANSIT implemented the Oracle Database over a decade ago and the Oracle Enterprise Business Suite (EBS) Procure to Pay system in October 2017 to support business operations including general ledger, inventory, procurement, accounts payable, and other enterprise applications; and

WHEREAS, many NJ TRANSIT applications run on the Oracle database infrastructure; and

WHEREAS, as proprietary software, Oracle requires payments for software maintenance and support on an annual basis; and

WHEREAS, NJ TRANSIT staff solicited competitive bids for Oracle software maintenance using approved vendors on the National IPA/CPN COOP;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to enter into a software maintenance contract for Oracle EBS with Mythics of Virginia Beach, Virginia, for the period of June 21, 2021 through June 20, 2022, in an amount not to exceed $2,081,157.12, plus five percent for contingencies, subject to the availability of funds.

ITEM 2107-53: PROCUREMENT BY EXCEPTION TO PURCHASE TWO ENGINE DYNAMOMETERS, DATA ACQUISITION AND CONTROL, AND WATER SYSTEMS FOR THE BUS CENTRAL MAINTENANCE FACILITY

WHEREAS, the NJ TRANSIT Bus Operations Central Maintenance Facility rebuilds engines for the agency's motorbus fleet in order to maintain warranty assurance and adhere to original equipment manufacturer requirements;

WHEREAS, all engines must be tested on an Engine Dynamometer (DYNO) prior to installation to provide a controlled break-in and prevent installation of defective engine assemblies; and

WHEREAS, the two existing DYNOs purchased in 1999 have exhausted their useful lives and must be replaced to ensure the safe and reliable operation of NJ TRANSIT's motorbus fleet; and

WHEREAS, NJ TRANSIT Bus Operations is currently outsourcing DYNO testing to a third-party vendor to continue this critical process at a significant cost; and

WHEREAS, the replacement of major technical components in one purchase will assure the standardization of equipment and interchangeability of parts across NJ TRANSIT's motorbus fleet, and will enable Bus Operations employees to be trained and familiar with the operation, maintenance, and installation of the components, benefiting the public interest by reducing bus cancellations or annulments, and improving bus availability issues be accelerating rebuilt engines and repairs; and

WHEREAS, NJ TRANSIT advertised an Expression of Interest to solicit competitive pricing for two Dynamometers, Data Acquisition and Control, and Water Systems, including the purchase of equipment, installation, startup, and training for a complete turnkey operation and did not receive a proposal or formal quote from other interested vendors aside from Taylor Dynamometer; and

WHEREAS, Taylor Dynamometer can provide the product, which will be customized and built specifically to the needs of NJ TRANSIT Bus Operations, and has been deemed competent to do so by the Bus Operations Technical Service Department; and

WHEREAS, pursuant to N.J.S.A. 27:25-11 (g)(3)(e), NJ TRANSIT has the authority to enter into contracts without advertising to acquire major equipment used in support of transit operations; and additionally, under N.J.A.C. 16:72-1.5(e) 14, NJ TRANSIT has the authority to enter into contracts without advertising to overhaul motorbuses; and furthermore under N.J.S.A. 27:25-11 g(3)(c), N.J.S.A. 52:34-1 O(g), and N.J.A.C. 16:72-1.5(e)12, NJ TRANSIT is authorized to enter into contracts without advertising when the equipment to be purchased is of a technical nature and the

procurement thereof without advertising is necessary in order to assure standardization of equipment and interchangeability of parts in the public interest;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to enter into a procurement-by-exception contract (EOI Contract No. 20-342) for the purchase of two Engine Dynamometers, Data Acquisition and Control, and Water Systems with Taylor Dynamometer of Milwaukee, Wisconsin, for installation, commissioning, startup testing, and related training in an amount not to exceed $499,001.55, plus ten percent for contingencies, for a total authorization of $548,901.00, subject to the availability of funds.

ITEM 2107-54: SUPERSTORM SANDY AND OTHER PROPERTY INSURANCE CLAIMS/ RECOVERY ASSISTANCE

WHEREAS, during Fiscal Year 2013, NJ TRANSIT maintained a $400,000,000 property insurance program; and

WHEREAS, the costs to repair damage to NJ TRANSIT's insurable assets as a result of Superstorm Sandy are reimbursable from the agency's property insurance program; and

WHEREAS, NJ TRANSIT is required to submit detailed information in support of its property damage insurance claim; and

WHEREAS, upon completion of a competitive procurement process and subsequent Board approval, pursuant to NJ TRANSIT Contract 10-046, Marsh USA was authorized to perform forensic accounting services in support of NJ TRANSIT's property insurance claim and to assist with the agency's federal grant applications; and

WHEREAS, due to the extent of the damage and the amount of detailed information needed to prepare and justify the claim and federal grant applications, additional authorization is sought to continue to utilize Marsh USA to perform forensic accounting services;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to increase the amount for NJ TRANSIT Contract No. 10-046 with Marsh USA by $2,500,000, plus five percent for contingency, for a total contract authorization of $8,896,270, subject to the availability of funds.

ITEM 2107-55: PERSONAL INJURY CLAIM OF KILIEK ANTHONY

WHEREAS, Article VI, Section II of the By-Laws requires Board Authorization for settlement of claims in excess of $500,000; and

WHEREAS, Kiliek Anthony has presented a claim with a probable settlement cost greater than $500,000; and

WHEREAS, staff has reviewed the claim and recommends settling this case out of court;

NOW, THEREFORE, BE IT RESOLVED that the Chair or President & CEO is authorized to settle the claim of Kiliek Anthony through his attorney, at an amount discussed in Executive Session. The Attorney General has approved the proposed settlement, subject to the availability of funds.

EXECUTIVE SESSION AUTHORIZATION

BE IT HEREBY RESOLVED pursuant to N.J.S.A. 10:4-12 and N.J.S.A. 10:4-13 that the Board of Directors of the New Jersey Transit Corporation hold an executive session to discuss personnel matters, contract negotiations, the status of pending and anticipated litigation, and matters falling within the attorney-client privilege, including, but not limited to the Personal Injury Claim of Pierre Chehade and the Personal Injury Claim of Viandy Morales; and

BE IT FURTHER RESOLVED that it is expected that discussions undertaken at this executive session could be made public at the conclusion of these matters as appropriate.