



A Vital Transportation Link

CONNECTING COMMUNITIES

Preliminary Engineering Informational Update | Spring 2023



WHAT IS THE GCL?

- Glassboro-Camden Line – aka GCL
 - 18-mile passenger rail line between Glassboro & Camden in South Jersey.
 - The line restores passenger rail service along an existing rail line traversing Gloucester and Camden counties.
 - Station stop communities: Glassboro, Pitman, Sewell, Mantua Township, Woodbury Heights, Woodbury, Westville, Gloucester City, Camden.



CONNECTING COMMUNITIES

- GCL's purpose:

- To improve transit service along the Glassboro-to-Camden corridor.
- To increase mobility.
- To improve links between people, communities, jobs, and activity centers.



CONNECTING:



Culture



Recreation



Education



Business



Health & Science

CONNECTING COMMUNITIES

- GCL's goals:
 - Provide more transit choices and improved quality of service.
 - Develop a transit network that improves links between people and activity centers.
 - Reduce highway congestion with competitive transit investment.
 - Reduced reliance on personal vehicles.
 - Maximize existing transportation assets and minimize impacts to the environment.
 - Support planned state and local growth initiatives.
 - Promote economic development and improve quality of life.

CONNECTING COMMUNITIES

- **PATCO**
 - Connection to Center City (Philadelphia)
- **SEPTA**
 - Market-Frankford Line & Broad Street Line
 - Trolley Lines
 - Regional Rail Lines
 - Amtrak @ 30th Street Station
 - Philadelphia International Airport (PHL)
- **Camden and Gloucester counties**
- **NJ TRANSIT**
 - Atlantic City Line
 - Trenton via the River Line
 - New York City via the Northeast Corridor
 - Bus network



ROUTE SELECTION

- How was the GCL route selected?

- The restoration of passenger rail service using light rail technology was the alternative preferred by the local communities and selected at the end of the Alternatives Analysis (AA) study.

- Criteria

- Highest new transit trip potential
- Lowest capital cost
- Lowest operating cost
- Maximizes use of existing infrastructure



ROUTE SELECTION (continued)

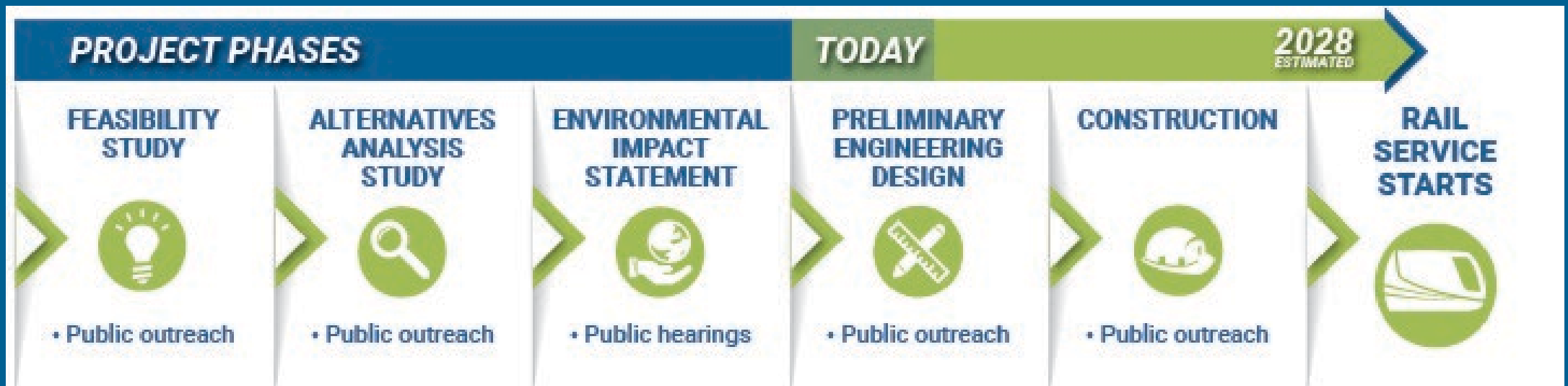
■ Criteria

- Links communities, universities, activity centers, and cities.
- Supports intra-NJ trips.
- Encourages economic redevelopment and Transit-Oriented Development (TOD) within surrounding communities.
- Creates footprint consistent with surrounding area.
- Consistent with state's smart growth initiatives.
- Supported by local and state elected officials.
- Received the most public comment support.



ADVANCEMENTS

- Achieving Success through Careful Planning & Outreach
 - 2021 ~ Environmental Impact Statement (EIS) completed.
 - 2022 ~ Preliminary Engineering Design phase started.



TRAIN TYPE

- The GCL Team is evaluating the latest and alternative technologies and working with vehicle suppliers as part of the preliminary design phase.
- Under consideration:
 - Self-powered, zero emission, and biofuel vehicles – referred to as Multiple Units or MUs – are being explored.
 - Train type needs to operate in the existing mixed-use rail corridor.
 - Two-car train sets will have capacity for up to 300 passengers.
 - Low-floor cars for level boarding and ADA accessibility.

TRAIN TYPE (continued)

- Under consideration:
 - Average speed would be 35 mph, with a capability of up to 65 mph.
 - Proposed initial fleet of 18 vehicles (nine two-car trains).



Alstom Coradia iLint Hydrogen Train (credit: Alstom)



Rendering of a Stadler FLIRT BEMU (credit: Stadler Rail).

TRAIN SERVICE

■ Operating Information

- Train service will operate seven days a week.
- Frequency of trains:
 - Every 15 minutes from 5 AM to 9 PM.
 - Every 30 minutes from 9 PM to midnight.

ESTIMATED TRAVEL TIMES BETWEEN SELECT LOCATIONS

<u>From</u>	<u>To Camden</u>	<u>To Philadelphia</u> (via PATCO transfer)
Glassboro	37 minutes	50 minutes
Mantua	26 minutes	39 minutes

STATIONS

- Station types vary between small, walk-up stations in the center of existing communities and park-and-ride facilities built near major roadways.
 - 14 stations; generally located every one-to-two miles.
 - All ADA-accessible.
 - Two types of station platforms: center platform and side platform.
 - Designed to accommodate future ridership demand.



STATIONS Preliminary Rendering View



NOISE AND QUIET ZONES

- A “quiet zone” is a grade crossing at which train horns/bells are not required to sound (unless safety mandates).
- Quiet Zone Applications
 - The Project Team is working with the New Jersey Department of Transportation and the Federal Railroad Administration to confirm the quiet zone designation process and related logistics.
 - The Project Team will assist in the completion of a quiet zone application on behalf of the municipality, county, or entity.
 - The Project Team will pay the costs to design, install, and maintain quiet zones.

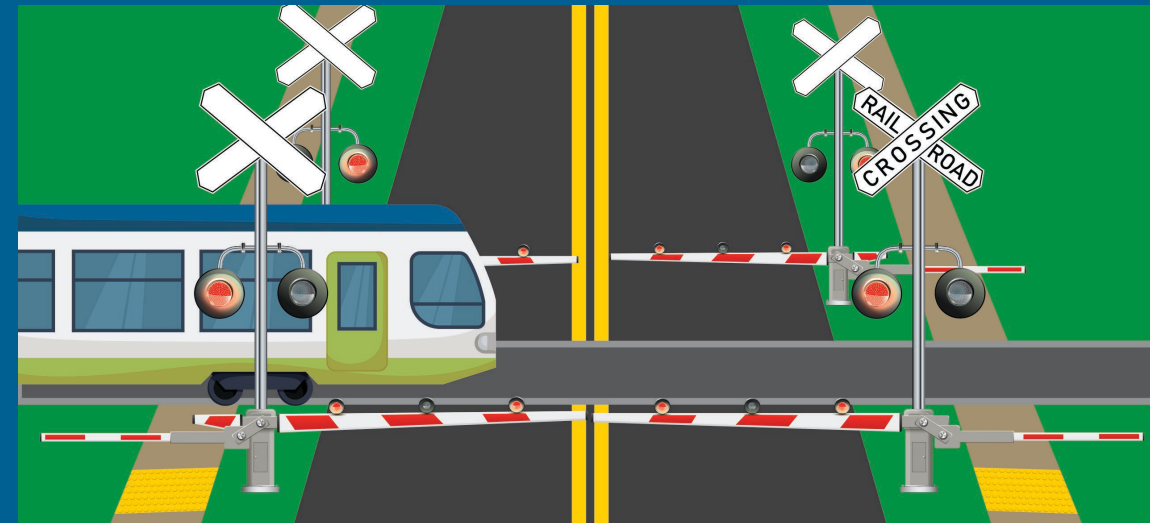
NOISE AND QUIET ZONES (continued)

- **Noise and Vibration Studies**
 - Noise and vibration studies are being done as part of the preliminary engineering design.
 - Areas potentially impacted by noise and vibration will be mitigated using rubber ballast mats, berms, landscaping, and other techniques.



SAFETY

- Safety improvements will be included at each intersection regardless of a town's decision to pursue a quiet zone.
- Roadway crossings: four-quadrant gates, roadways, and sidewalks.
- Signing and safety enhancements will be made to unofficial crossings, and high pedestrian crossings.



SAFETY (continued)

- **The GCL is designed to minimize impacts on vehicular traffic.**
 - Safety and security measures will be redefined in consultation with the public and corridor jurisdictions.
 - Further investigation of signal timing optimization for rail grade crossings will be performed.
 - Coordination between train dispatchers and EMS responders is being evaluated.
 - Models will include most recent 2020 census information and traffic analysis.
- **Ongoing public outreach will be performed.**
 - Vehicular and pedestrian safety.
 - Public safety education programs (Operation Lifesaver).

EMPLOYMENT OPPORTUNITIES

- The GCL will extend employment opportunities in Southern NJ.
- Anticipated roles/contracts include:
 - Train Operators
 - Control Center Dispatchers
 - Design and Construction
 - Right-of-Way Maintenance
 - Stations and Parking Lot Staff (Maintenance/Janitorial; Snow Removal and Landscaping; Ticket Machine Management)
 - Maintenance Facility Staff (car mechanics, train cleaners, etc.)



TRANSIT BENEFITS

ECONOMIC BENEFITS

According to the American Public Transportation Association and the National Association of Realtors...



Every **\$1** invested in public transportation generates **\$4** in economic returns.



Every **\$1 billion** invested in public transportation supports and creates **more than 50,000 jobs**.



Every **\$1 billion** in federal highway and transit investment supports **13,000 jobs** for **one year**.



Every **\$10 million** in capital investment in public transportation yields **\$30 million** in increased business sales.



Home values in areas located near high-frequency public transit performed **42% better** than other areas.

TRANSIT BENEFITS (continued)

ENVIRONMENTAL BENEFITS

According to the American Public Transportation Association...



1 GCL train will accommodate 300 passengers who otherwise might be driving alone.



Public transportation's overall effects save the United States **4.2 billion gallons** of gasoline annually.



1 in 4 households located near transit does not own a vehicle.



Communities that invest in public transit reduce the nation's carbon emissions by **37 million metric tons** annually.



The GCL will **maximize existing transportation assets** while **minimizing impacts to the environment**.

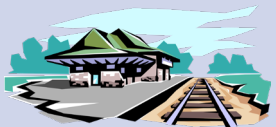
TRANSIT BENEFITS (continued)

SOCIETAL BENEFITS

According to the American Public Transportation Association and the National Association of Realtors...



Transit for All – Offers mobility options to individuals without access to a vehicle.



Promotes Healthy Lifestyles – GCL stations are located in existing communities with several walk-up stations.



Safer than Driving – Statistically, train-related accidents happen at a lesser rate, and with much lower passenger fatality rates than car travel does.



Connecting People – To work, school, shopping, doctors, entertainment, and each other, by removing barriers to access.



Improves Commuter Productivity – Read a book, play on the phone, prep for a meeting, cram for a test, or stare out the window; avoid the stress of driving and regain the time.

TRANSIT BENEFITS (continued)

Consolidating Commuters

With less cars on the road, travel become faster, cleaner, and arguably, more efficient.

How many passengers does each mode of transportation accommodate?

CAPACITY TEST			
<u>Train</u>	<u>Bus</u>	<u>Car</u>	<u>Bike</u>
Up to 300	71 on average*	3 on average**	1

*Average based on NJ TRANSIT, SEPTA, MTA (NY), and DART (DE) bus capacities.

**Average based on four-person sedan vs. typical SUV model.

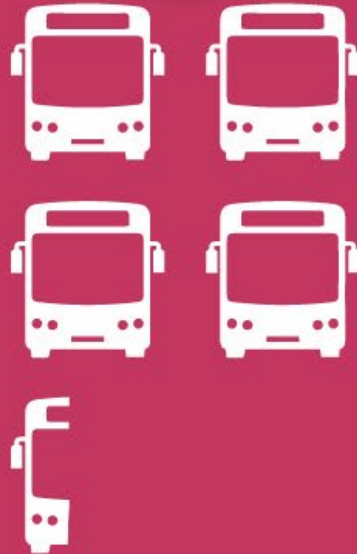
TRANSIT BENEFITS (continued)

Consolidating Commuters

**1
GCL**



**4.23
BUSES**



**100
CARS**



NEXT STEPS

- Collaboration between DRPA, SJTA, and NJ TRANSIT.
- Continued project outreach.
- Advancement of Preliminary Engineering Design.
 - Started in October 2022; duration is approximately three years.
 - Scope: preliminary design documents, right-of-way acquisitions and easements, and utility investigation and relocation.
 - Deliverables: Design/Build/Operate/Maintain (DBOM-[F]) contract documents.