



URS

Princeton Transit Study

Princeton Traffic and Transit Task Force Meeting

June 26, 2013

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Project Goals

Project Goals

1. Improve Transit Mobility, Connectivity, and Accessibility
2. Provide Cost Effective and Efficient Transportation Services
3. Encourage Sustainable Economic Development
4. Maintain/Enhance Livability and Quality of life

Improve Transit Mobility, Connectivity and Accessibility

- Provide connections to existing and future transit services.
- Increase transit demand.
- Accommodate future transit demand.
- Maintain existing commuter level of service.
- Maintain existing comfort of service.
- Minimize transfers within the transportation system.
- Improve operating speed.
- Maintain bicycle friendly atmosphere.

Provide Cost Effective & Efficient Transportation Services

- Implement within a reasonable time frame.
- Implement at a reasonable capital cost.
- Minimize operating and maintenance costs per passenger mile.
- Consistent with NJT or Princeton University operating technologies.
- Maintain emergency vehicles access to system.
- Maintain access to arterial roadways.
- Maintain access to existing and future users.
- Minimize property acquisition.
- Ability to phase construction.
- Minimize turning radii that meet current alignments.

Encourage Sustainable Economic Development

- Stimulate economic development
- Improve connection between residential/commercial/educational destinations.

Maintain/Enhance Livability and Quality of Life

- Minimize/avoid impacts on historic resources.
- Minimize encroachment on view corridors.
- Minimize construction impacts.
- Reduce vehicle congestion emissions and noise.
- Reduce system congestion emissions and noise.
- Improve energy efficiency.

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LRT (Light Rail Transit)

LRT

- Single Cars/Short Trains
- Generally in Exclusive or Separated Right of Way
- Occasionally in Streets
- Higher Capacity and Speeds (up to 60 mph)
- Larger Curves (min 82 feet)


27
Nassau St
University


27
Nassau St
University Pl


Forbes
Green
Forbes
Fence
University Place
Green
Lewis Center
For the Arts

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Streetcar

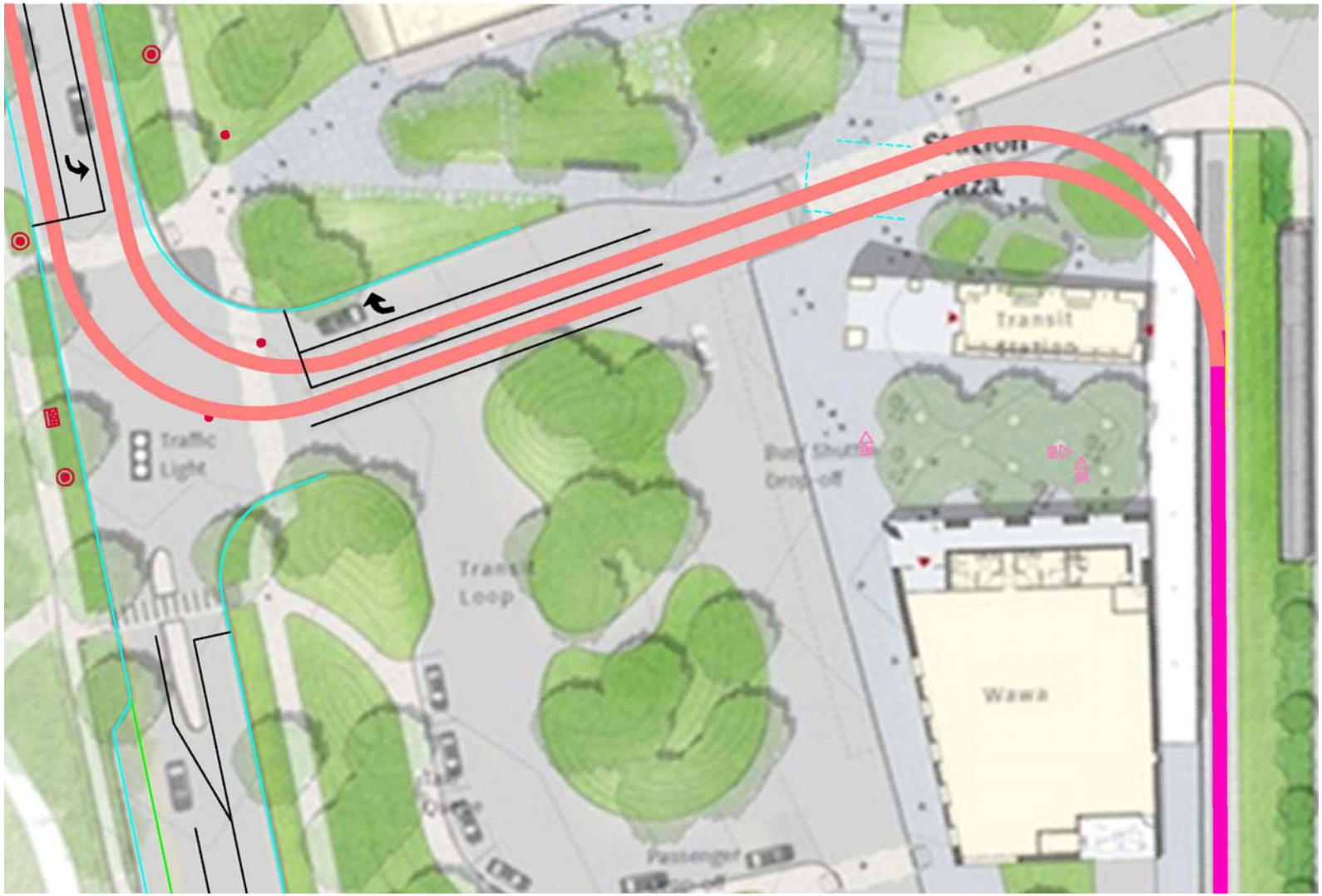
Streetcar

- Single Cars
- Generally in Streets with traffic
- Moderate Capacity
- Speeds up to 40/45 mph
- Tight Curves possible (min 50 feet)
- Rolling Stock available includes:
  - Modern Cars
  - Heritage Cars
  - New Replica Cars

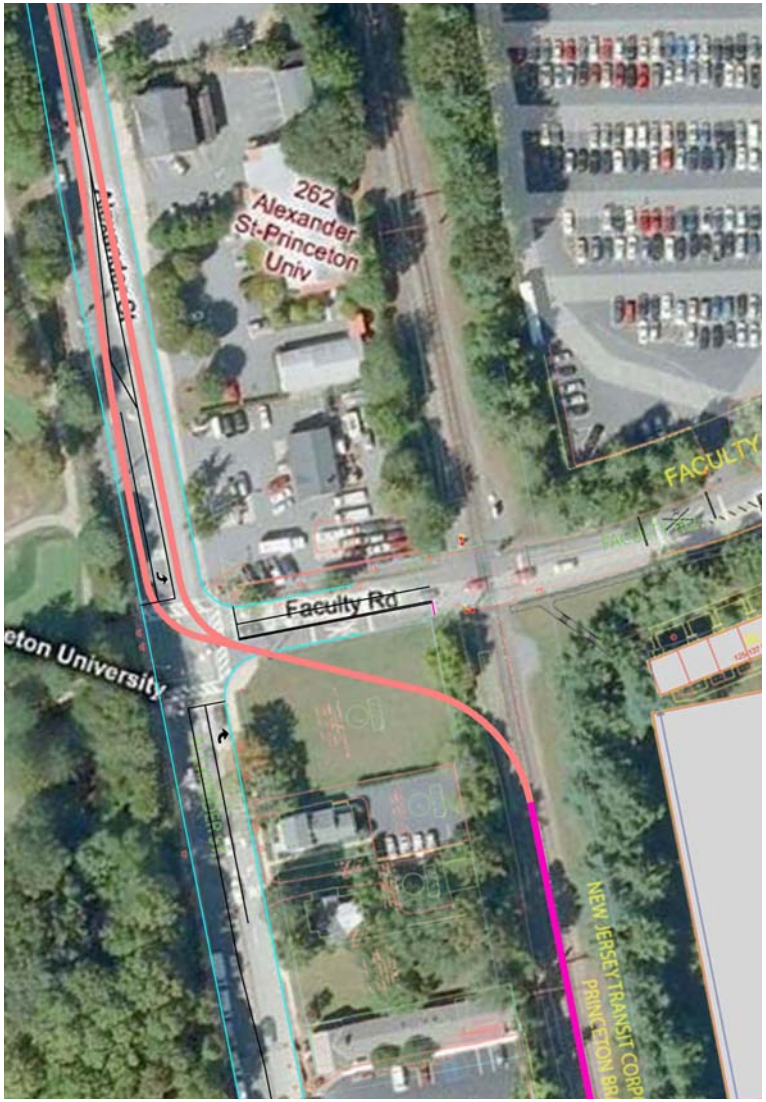

Nassau St


Forbes
Fence


Forbes


Traffic Light
Transit Loop
Transit station
Wawa
Passenger


Alexander


262
Alexander
St-Princeton
Univ
FACULTY
Faculty Rd
eton University
NEW JERSEY TRANSIT CORP

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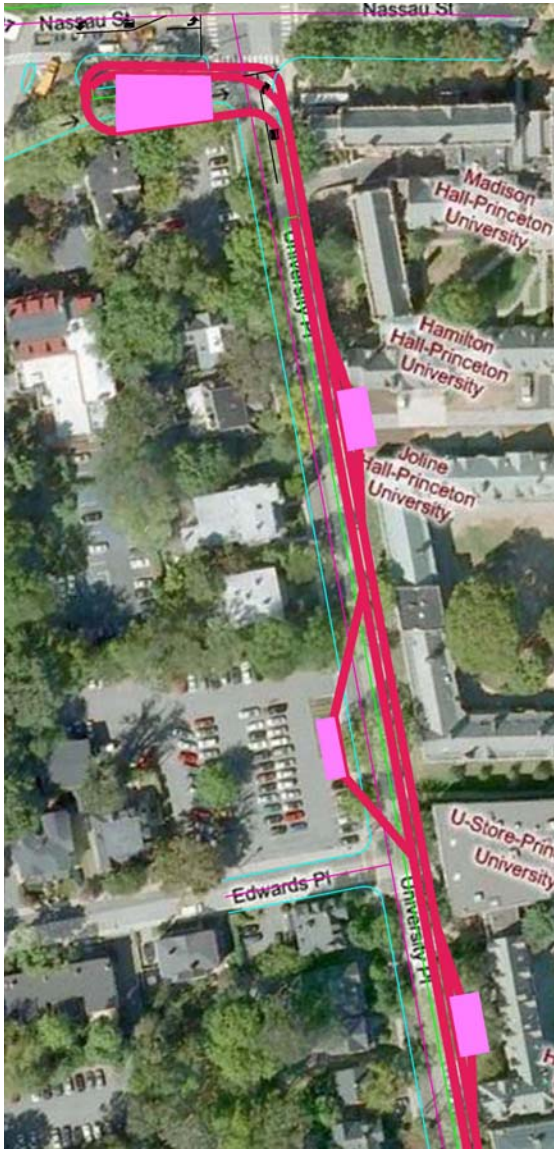
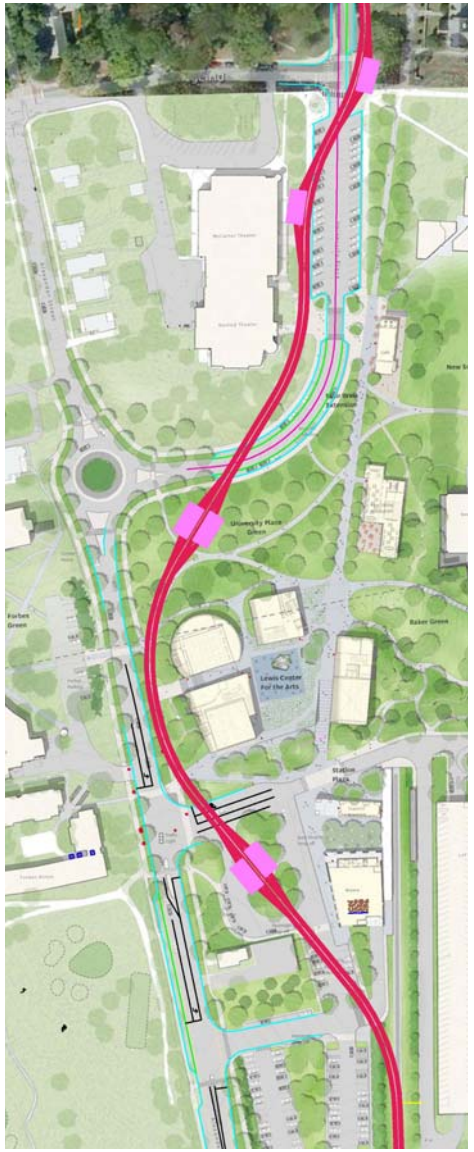
PRT (Personal Rapid Transit)

PRT

- Single Cars
- Separated Guideway Required
- Low Capacity:
  - 4-6 Persons (PRT)
  - 20+ Persons (GRT)
- Speeds up to 25 mph
- Generally Demand Responsive
- Broad Curves needed at speed; Tight Turns possible for Maneuvering


Nassau St
Nassau St
Madison
Hall-Princeton
University
University Pl
Hamilton
Hall-Princeton
University
Joline
Hall-Princeton
University
U-Store-Prin
University
Edwards Pl
University Pl



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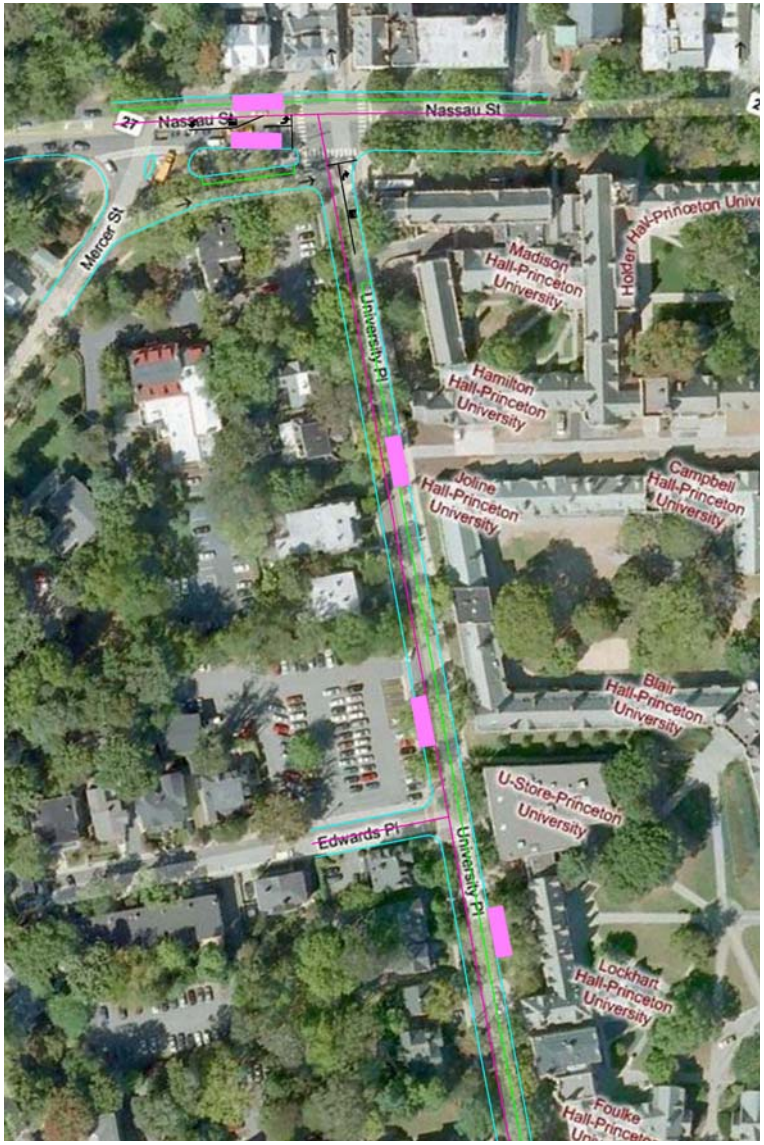
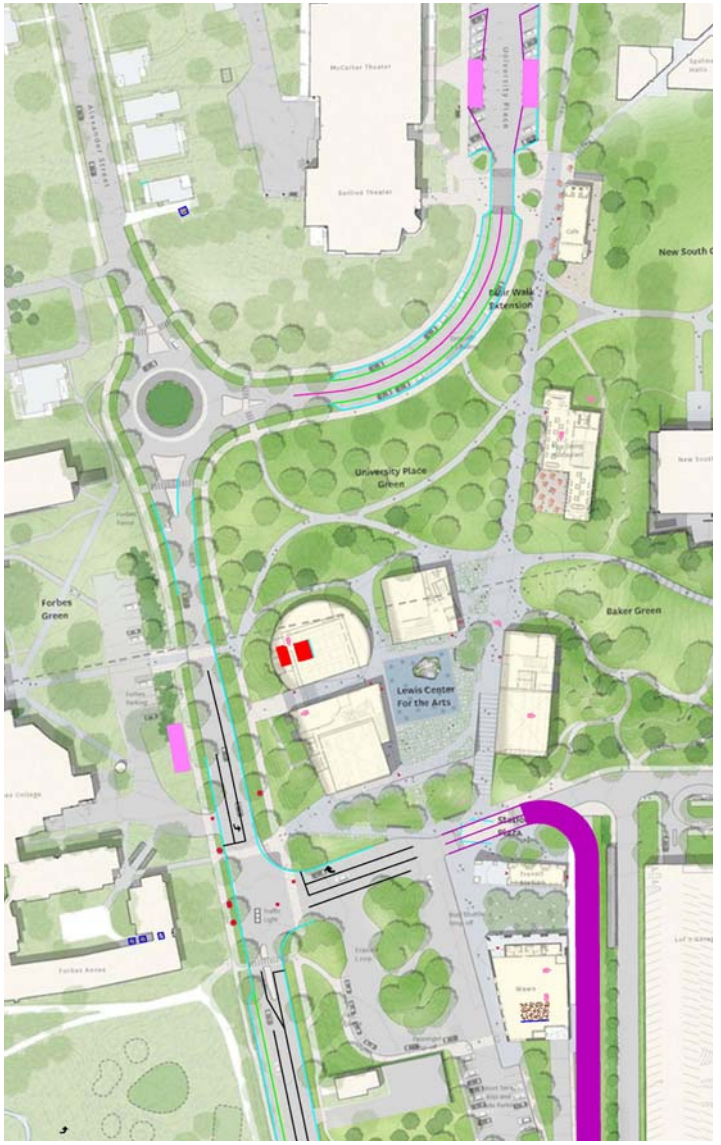
BRT (Bus Rapid Transit)

BRT

- Standard Bus or special vehicles available
- Separated Guideway Typical, but Street operations possible
- Moderate Capacity
- Highway Speeds
- Normal street geometry acceptable


Nassau St
Nassau St
Mercer St
University Pl
Madison Hall-Princeton University
Holder Hall-Princeton Univ
Hamilton Hall-Princeton University
Joline Hall-Princeton University
Campbell Hall-Princeton University
Blair Hall-Princeton University
U-Store-Princeton University
Edwards Pl
University Pl
Lockhart Hall-Princeton University
Foulke Hall-Princeton


University Place Green
Forbes Green
Baker Green
Lewis Center For the Arts

Preliminary

Table
Evaluation of Mode Alternatives

Objectives and Evaluation Criteria	LRT	Streetcar	PRT - above grade	PRT- at grade	BRT
Improve Transit Mobility, Connectivity, and Accessibility	130	120	100	90	130
Provide connections to existing and future transit services.	10	10	0	10	15
Increase transit demand.	15	15	20	15	15
Accommodate future transit demand.	20	15	5	5	15
Maintain existing commuter level of service.	20	20	20	20	20
Maintain existing comfort of service	20	20	20	15	10
Minimize transfers within the transportation system.	20	20	15	15	20
Improve operating speed.	20	15	5	5	15
Maintain bicycle friendly atmosphere.	5	5	15	5	20
Provide Cost Effective and Efficient Transportation Services	130	130	70	35	150
Implement within a reasonable time frame.	15	15	0	0	15
Implement at a reasonable capital cost.	15	15	0	0	15
Minimize operating and maintenance costs per passenger mile	10	10	20	20	15
Consistent with NJT or Princeton University operating technologies.	15	10	0	0	15
Maintain emergency vehicles access to system.	15	15	5	10	20
Maintain access to arterial roadways.	20	20	20	0	20
Maintain access to existing and future users.	15	15	10	5	20
Minimize property acquisition.	15	20	15	0	15
Ability to phase construction.	10	10	0	0	15
Minimizing turning radii that meets current alignments	5	10	20	20	15
Encourage Sustainable Economic Development	35	40	10	20	35
Stimulate economic development	15	20	5	5	15
Improve connection between residential/commercial/educational destinations.	20	20	5	15	20
Maintain/Enhance Livability and Quality of Life	75	75	60	85	80
Minimize/avoid impacts on historic resources.	15	15	0	10	15
Minimize encroachment on view corridors.	15	15	0	15	15
Minimize construction impacts.	10	10	0	10	10
Reduce vehicle congestion emissions and noise.	15	15	20	15	15
Reduce system congestion emissions and noise.	15	15	20	15	15
Improve energy efficiency.	5	5	20	20	10
TOTAL	370	365	240	230	395