



## A Plan to Connect Baltimore



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**MTA**  **Maryland**  Maryland Department of Transportation



# What is BaltimoreLink?

- **Improve** service quality and reliability
- **Maximize** access to high-frequency transit
- **Strengthen** connections between the MTA's bus and rail routes
- **Align** the network with existing and emerging job centers
- **Involve** riders, employees, communities, and elected officials in the planning process

*Linking*  
Modes  
Places  
People

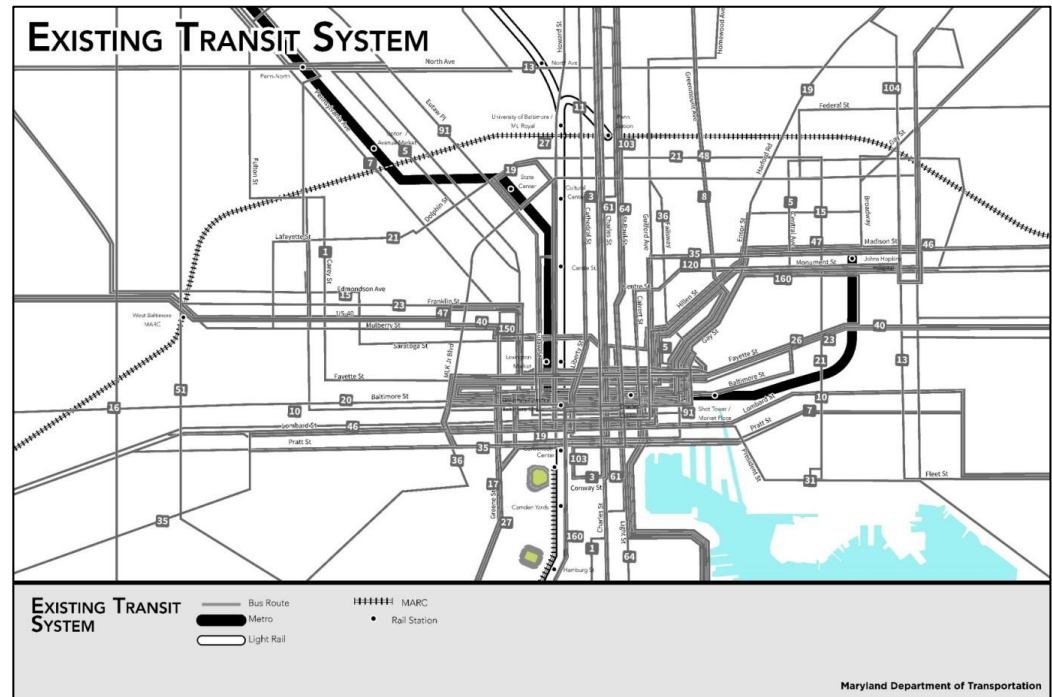
*Improving*  
Safety  
Efficiency  
Reliability  
Customer Service



# Existing Service

We've heard the existing transit system is...

- Broken
- Disconnected
- Crowded
- Unclean
- Unreliable
- Not connected to jobs



## Major Problems:

- **Lengthy Routes** – Long east-west and north-south routes
- **Highly Congested** – Buses bottleneck due to network design
- **Unreliable** – Network design hinders MTA's ability to provide reliable service

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# The Solution - The BaltimoreLink Network



- **High-frequency** routes into and throughout urban core

- Color-coded routes
- All lines access Downtown
- 24 hours of service per day
- Designed to connect to all other CityLink routes and to Rail Stations



- **Local** Routes connecting to CityLink routes

- Neighborhood connectivity
- Suburb-to-urban core connectivity



- **Limited stop** routes into urban core and suburb-to-suburb

- Connecting to Regional Job Centers and Downtown

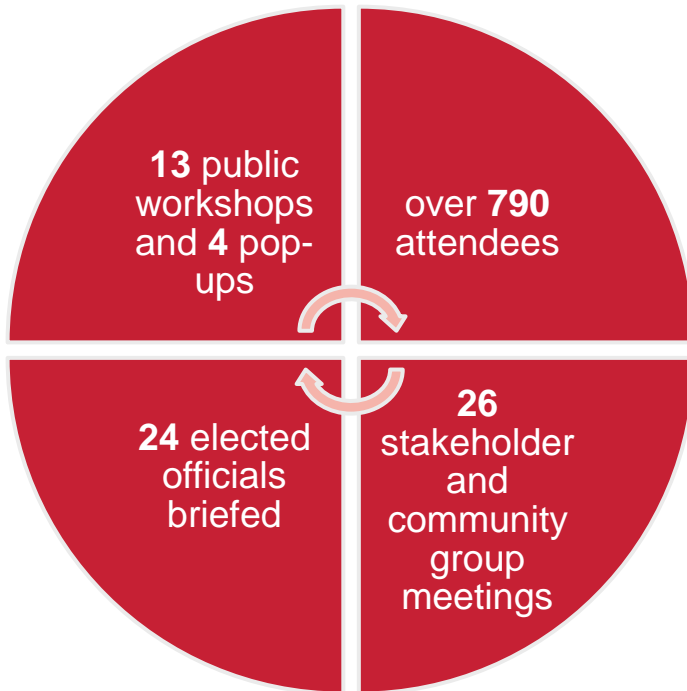
To be integrated seamlessly with:



# 1<sup>st</sup> Draft Outreach

October 2015 – February 2016

- BaltimoreLink Outreach built upon the effort accomplished as part of the 2013 Baltimore Network Improvement Project (BNIP)
- MTA gathered over 1,280 comments from 67 key events



# 1<sup>st</sup> Draft Outreach

## Comment Submittal and Topic



61% submitted online  
(mySideWalk or Survey Monkey)

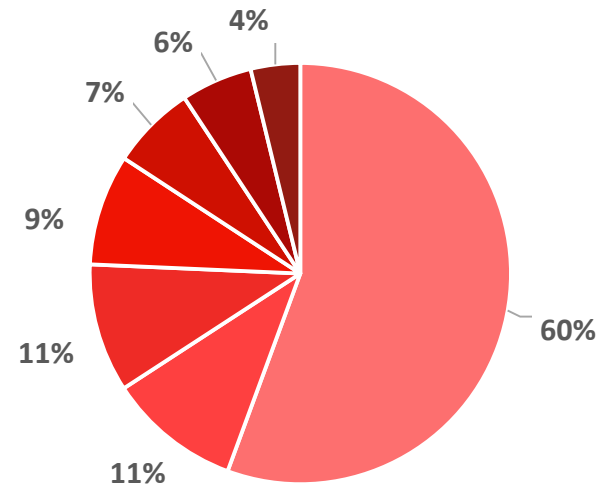


24% submitted comment form



15% submitted in other formats  
(hotline, email, verbal, or other)

- The majority of comments were about specific routes, forced transfers, and safety/cleanliness of the proposal



- Specific BaltimoreLink Route Proposal
- Forced Transfer
- Safety/Cleanliness
- Information/ Resources
- New Service Area Request
- Schools/School Children
- Other



# Public Impact on 2<sup>nd</sup> Draft

You spoke. We listened.

## 86%

Approximate share of **1<sup>st</sup> Draft** routes adjusted as a direct response to public feedback.

The **2<sup>nd</sup> Draft** BaltimoreLink network better reflects the connections that the public desires.



# Public Impact on 2<sup>nd</sup> Draft – Significant Changes

- **Greenmount Ave.** (Current route 8 and 48) – reintroducing CityLink Red to serve the entire corridor
- **Garrison Blvd. and Edmondson Ave.** (Current Routes 91, Route 15)– New connection to Downtown
- **Eastern Ave.** (Current route 10) – reintroducing CityLink Navy to serve Eastern Ave. in Highlandtown
- **Express Services** Reintroducing current routes 103, 115, 119, 120 and 160
- **Falls Rd, Roland Ave., N. Charles St., and Philadelphia Rd.** (Current Routes 27, Route 61, Route 11, Route 35) – reintroducing existing services
- **North Ave.** (Current Route 13) – Corridor-long CityLink Gold service
- **Harford Rd.** (Current Route 19) – the MTA Route 19 LocalLink service
- **Patapsco Station and Annapolis** (Current Route 14) – keeping a one seat ride
- **White Marsh Mall and Middle River** – (New LocalLink 61) New one-seat ride
- **Curtis Bay** (Current Route 164)– Improved transfers to Light Rail.
- **Southwest and Northeast Baltimore** (Current Route 36)– Improved connections between CityLinks Yellow & Green
- **Bernard E. Mason Apartments** (Current Route 15)– Improved service to Mondawmin Mall



# Measuring the New System

## ■ Partners:

- Baltimore Metropolitan Council (BMC)
  - Method: Regional travel demand model
  - Measured: Transfers, travel time and access to jobs
- Maryland Department of Planning (MDP)
  - Method: GIS mapping
  - Measured: Frequent Transit Network and population group access to human services



# Here is What We Found



**Preserving Daily Transfer Rate and Travel Times**



**33,600 More People with Access to Transit**



**Households will have Better Access to Jobs**



**Better Access to Services in the Region**



# What Will Not Change

You spoke. We listened.



## Minimal Change to Daily Transfer Rate

With the BaltimoreLink system, the average daily transfer rate in the region changes by less than 2%.



**53%** Of trips will require zero transfers.



**35%** Of trips will require one transfer.



**12%** Of trips will require two or more transfers.

The transfer rate measurement is based off of ridership patterns and is driven by a projected increase in mid-day trips.

Additionally, the transfer experience under BaltimoreLink will be eased with better frequencies on many routes, increased reliability, and improved wayfinding.



## Average Transit Travel Time of 52 Minutes

On average, a transit trip will take 52 minutes under BaltimoreLink, including time to access the bus stop, waiting time, time on the vehicle, and any necessary transfers. This is the same average transit travel time as on the current MTA system.



# What Will Improve

## Increasing Access to Transit



### 33,600 More People with Access to Transit

Under BaltimoreLink, an estimated 33,600 additional people – a 4% increase over the existing system – will be within 1/4 mile of transit.



### 60,700 More People with Access to Frequent Transit

Under BaltimoreLink, an estimated 60,700 additional people – a 15% increase over the existing system – will be within 1/4 mile of the frequent transit network. **The Frequent Transit Network is defined as any BaltimoreLink (CityLink and select LocalLink) route that operates every 15 minutes or less during peak and midday periods.**



# What Will Improve

## Increasing Access to Jobs



### Households will have Better Access to Jobs

Within the MTA service area, the average number of jobs accessible within 30 minutes on transit increases by 20%. The average number of jobs accessible within 45 minutes increases by 12%, and the average number of jobs accessible within an hour increases by 8%.



**+20%**

More jobs, on average, are accessible within 30 minutes or less.



**+12%**

More jobs, on average, are accessible within 45 minutes.



**+8%**

More jobs, on average, are accessible within 60 minutes.



### 34,400 More Jobs will have Access to Frequent Transit

Under BaltimoreLink, an estimated 34,400 additional jobs – a 14% increase over the existing system – will be within 1/4 mile of the Frequent Transit Network.



# What Will Improve

## Increasing Access to Job Centers

- The Opportunity Collaborative identified 11 job centers in the Baltimore metropolitan area based on employment density
- BaltimoreLink improves service to most of these job centers

Amazon	Annapolis
Coca Cola Drive	Columbia
Downtown	Hunt Valley
MD 32 & US1	Nursery Rd
Riverside Business Park	Towson Circle
Woodlawn	



## DOWNTOWN BALTIMORE

MARC TRAIN • METRO SUBWAYLINK • LIGHT RAILLINK  
CITYLINKS BR • RD • PK • OR • GD • YW • LM • GR • BL • NV • PL • SV  
LOCALLINKS 19 • 25 • 26 • 51 • 56 • 64 • 65 • 71 • 73 • 75 • 76 • 80 • 94 • 95  
EXPRESS BUSLINKS 103 • 115 • 119 • 120 • 150 • 160  
COMMUTER BUSES 210 • 215 • 310 • 320 • 410 • 411 • 420 • 425

**HUNT VALLEY**  
LIGHT RAILLINK • LOCALLINK 93

**RIVERSIDE BUSINESS PARK**  
MARC TRAIN (ABERDEEN)  
COMMUTER BUSES 420 • 425

**TOWSON**  
CITYLINKS RD • GR  
LOCALLINKS 36 • 51 • 52 • 53 • 93  
EXPRESSLINKS 102 • 106

**WOODLAWN**  
CITYLINK BL  
LOCALLINKS 31 • 34 • 35 • 37 • 78 • 79  
EXPRESS BUSLINK 107

**AMAZON**  
LOCALLINK 65

**NURSERY ROAD**  
LIGHT RAILLINK • LOCALLINK 75

**COLUMBIA**  
EXPRESS BUSLINK 150  
COMMUTER BUSES 310 • 320

**HANOVER**  
LOCALLINK 75  
COMMUTER BUS 320  
MARC TRAIN (DORSEY AND JESSUP)

**ANNAPOLIS JUNCTION**  
MARC TRAIN (SAVAGE)

LOCALLINK 70  
COMMUTER BUSES 210 • 215  
**ANNAPOLIS**

Connections to  
**Opportunity  
Collaborative**  
Job Centers



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# What Will Improve

## Increasing Access to Services



### Better Access to Services in the Region

BaltimoreLink is designed to provide **more frequent transit** to those educational institutions and health services that people need the most.



**+5**  
**Hospitals**



**+56%**



**+7**  
**Pharmacies**



**+6%**



**+12**  
**Supermarkets**



**+24%**



**+15**  
**Public Schools**



**+13%**



**+4**  
**Libraries**



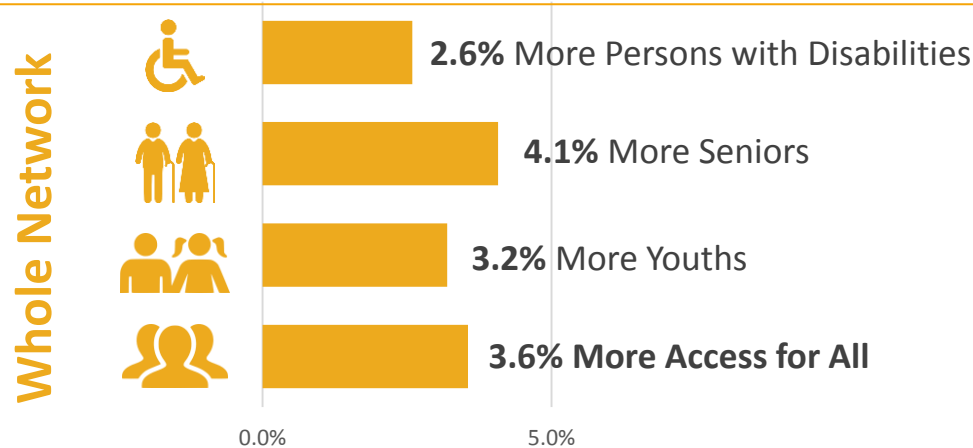
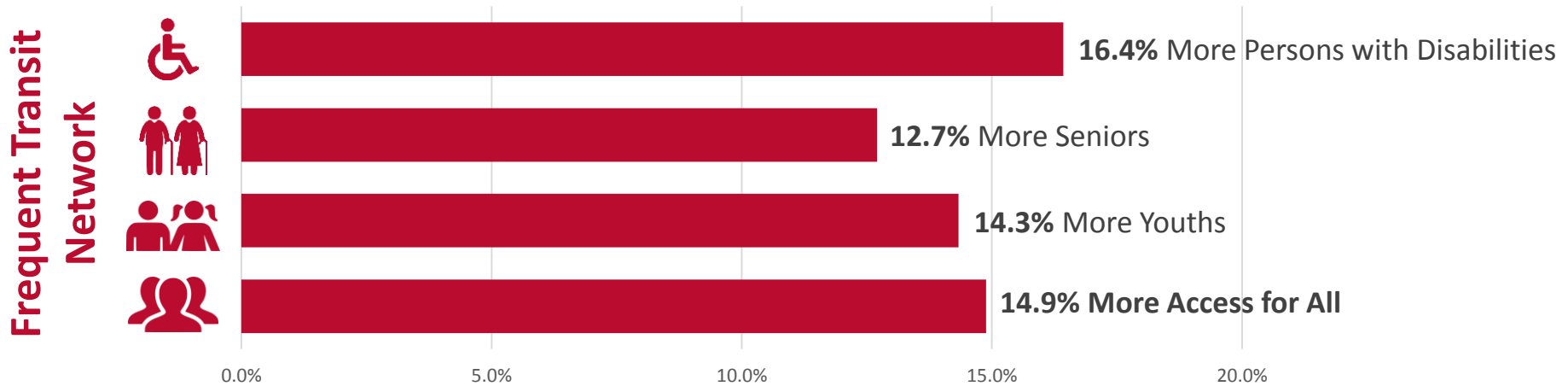
**+22%**



# What Will Improve

## Increasing Accessibility

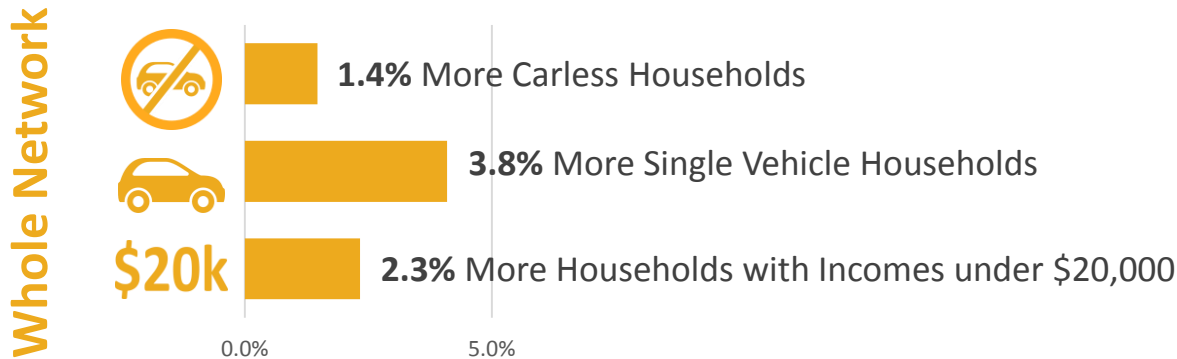
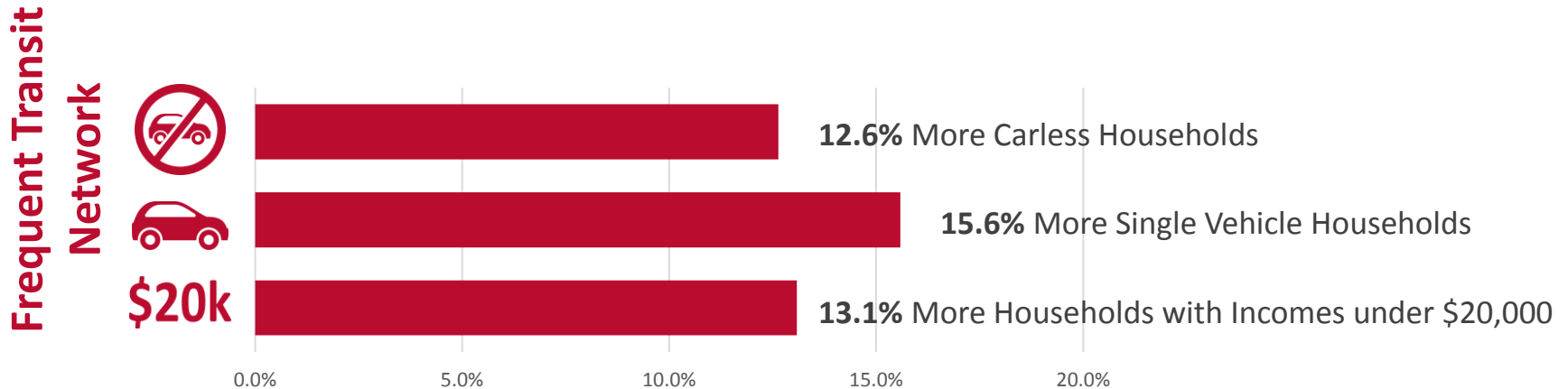
CHANGE IN PERCENT OF POPULATIONS  
WITHIN ¼ MILE OF BALTIMORELINK



# What Will Improve

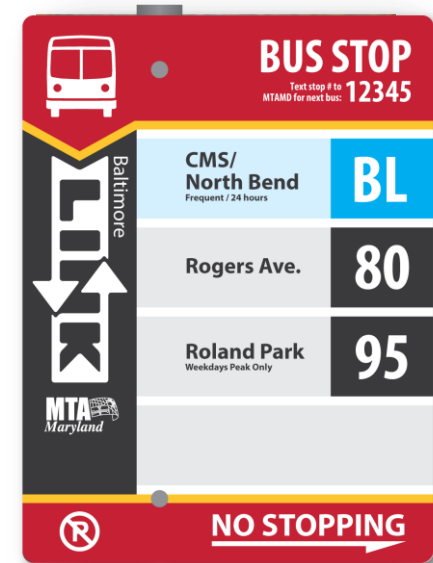
## Increasing Accessibility

CHANGE IN PERCENT OF HOUSEHOLDS  
WITHIN ¼ MILE OF BALTIMORELINK



# What Will Improve

- **Bus Stop Signage**
  - New signage will provide better destination information in a clear, easy-to-use fashion
- **Bus Vehicle Branding**
  - New buses with BaltimoreLink branding will make the system more uniform with cohesive design and color elements



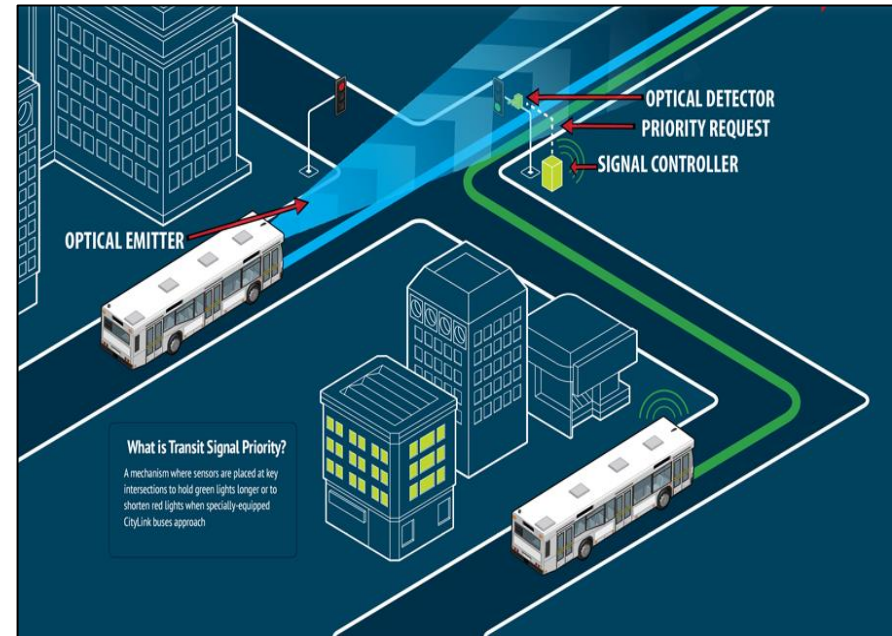
Note: Draft Image



# What Will Improve

## Transit Signal Priority

- Hardware and software to enable active priority for buses
- Approaching buses can trigger a shorter red light or longer green light
- Focusing on CityLink corridors and major pinch points
- Baltimore City DOT has agreed to enable Active TSP



# What Will Improve

## Transit Signal Priority

- Methodology:
  - Calculate “Intersection TSP Feasibility Score” which range from 0 to 100
    - Traffic Congestion levels
    - Far-side vs near-side bus stops
    - Available slack time in signal plan to allow a TSP request
    - Average bus speeds along route
    - Impact to non-TSP equipped transit
  - Perform detailed traffic analysis at highest ranked intersections to determine final locations

### Schedule

#### **Buses:**

- Installation on buses beginning in July
- Estimated 4 month duration

#### **Intersections:**

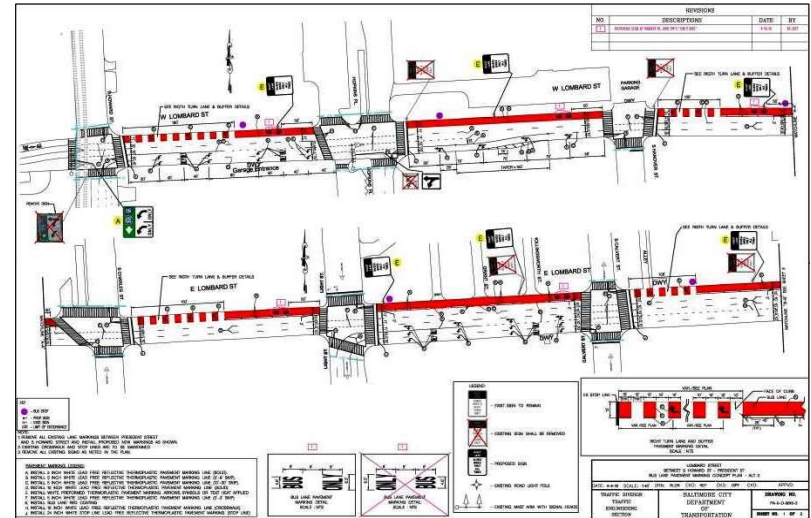
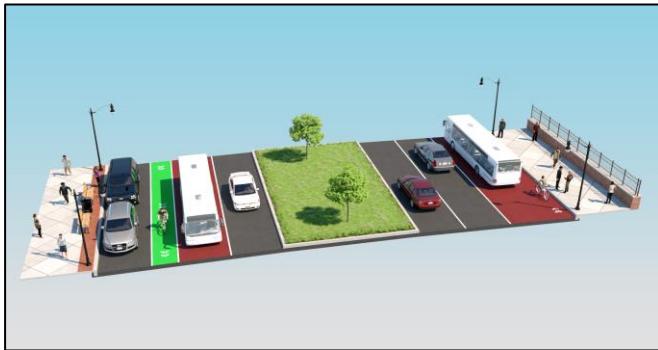
- Pilot corridor selected and approved in July
- Signal installation anticipated Fall 2016
- Estimated 6 month duration



# What Will Improve

## Dedicated Bus Lanes

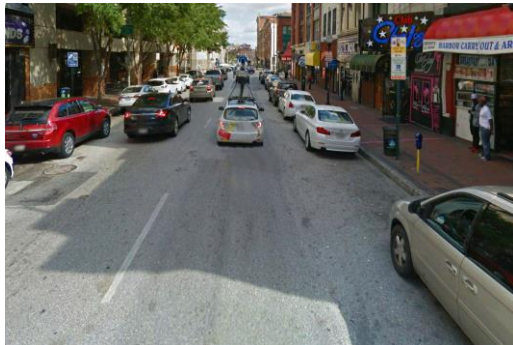
- Red painted lanes and “BUS LANE” striping
- Focusing on corridors with multiple CityLink routes to keep people moving



# What Will Improve

## Dedicated Bus Lanes

East Baltimore Street



North Gay Street



West Lombard Street

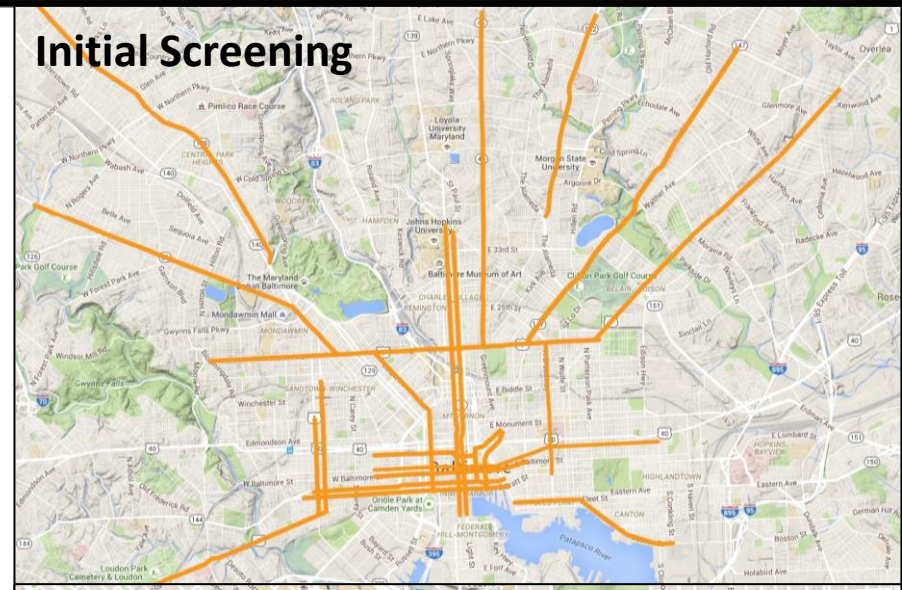


# What Will Improve

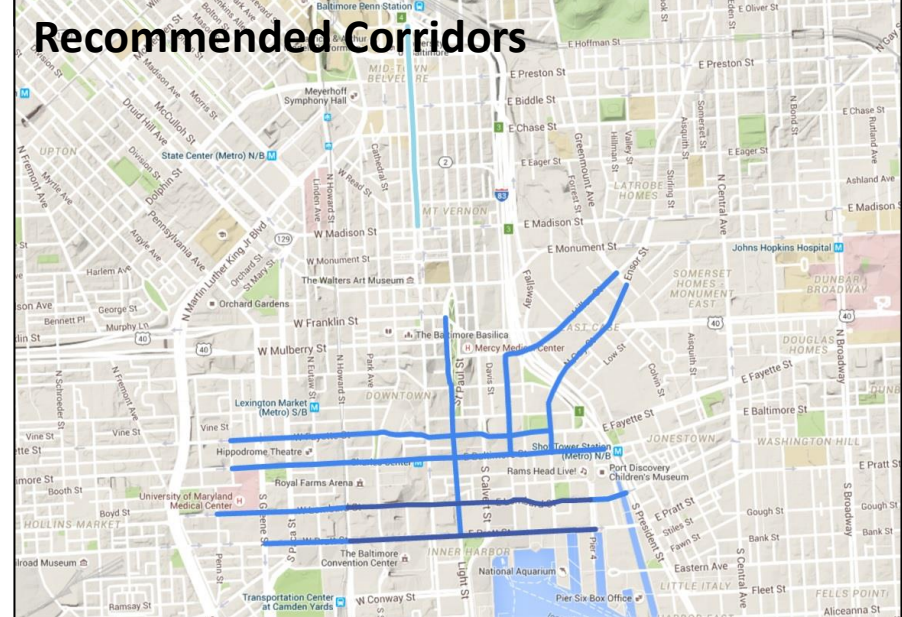
## Dedicated Bus Lanes

- Screened 25 streets
  - Buses / Peak Hour
  - Bus Passengers : Total Person Throughput
- Recommending roughly 5 ½ miles of dedicated bus lanes
  - Pratt (Greene to Market Place)
  - Lombard (Penn to Market Place)
  - Baltimore (Arch to President)
  - Fayette (Arch to Gay)
  - Charles (Madison to Oliver – PM Peak Only)
  - St. Paul (Franklin to Pratt)
  - Gay (Baltimore to Forrest)
  - Hillen (Forrest to Guilford)
  - Guilford (Pleasant to Baltimore)

## Initial Screening



## Recommended Corridors



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# What Will Improve

## Dedicated Bus Lanes

- Conceptual Design – June & July 2016
- Initial Public Meetings – Early July 2016
  - Tuesday, July 5, 4-6 p.m. – Charles Center Metro Mezzanine
  - Wednesday, July 6, 11 a.m.-3 p.m. – War Memorial (lower level)
  - Thursday, July 7, 4-6 p.m. – UMB SMC Campus Center, Elm Rooms
  - Additional Pop-Up events around downtown
- Final Design – August & September 2016
- Construction – Spring to Summer 2017



# What Will Improve

## Transfer Facilities

- Transit facilities, transfer areas, layovers, and optimized bus stops
- Improved or new signs, schedules, trash bins, benches, shelters, canopies, TVMs, and other amenities

### Off-Street Concept

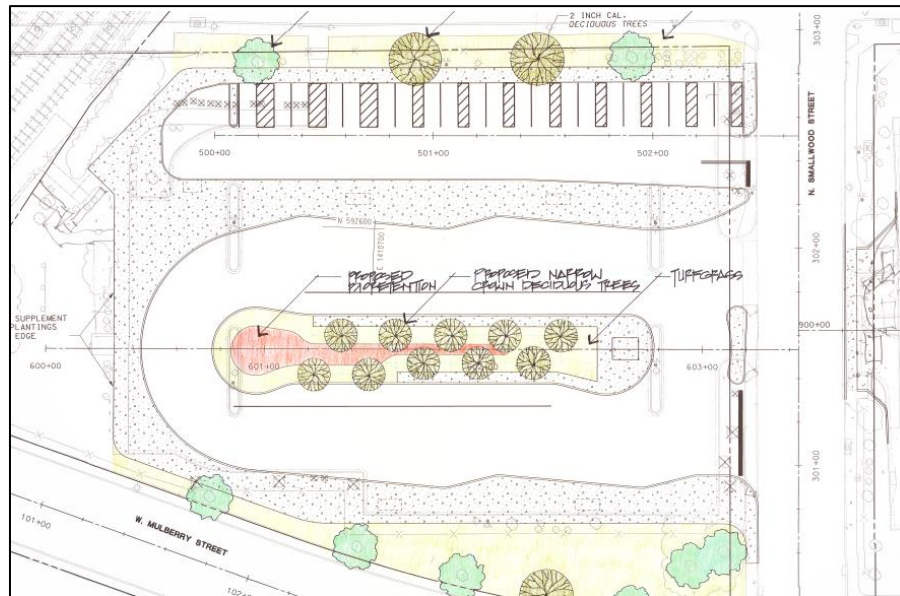
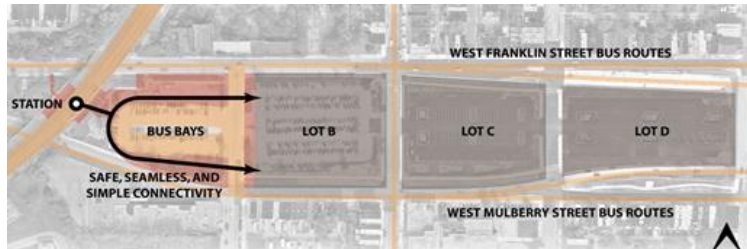
Major infrastructure modifications that maximizes safety, ease of transfer, and connections

### On-Street Concept

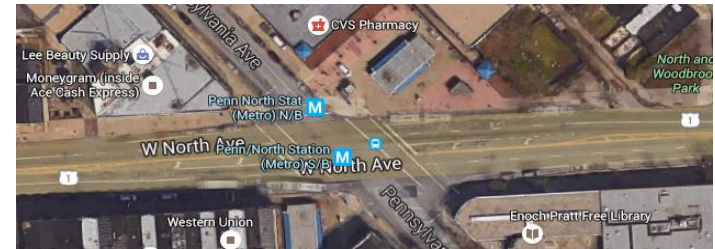
Moderate infrastructure modifications which will foster an improved transfer experience



## Off-Street Concept: West Baltimore MARC Station



## On-Street Concept: Penn-North Metro Station

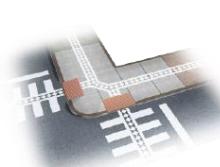


# What Will Improve Transfer Facilities

## Transfer Facility Locations

- West Baltimore MARC station
- North Ave between Charles and St. Paul
- Penn-North Metro Station
- Courthouse (Broadway/Harford)
- Bayview Hospital
- Charles Center Metro Station
- Lexington Market (Eutaw St)
- Penn Station
- State Center
- North Ave Light Rail Station

## Possible Amenities



**Streetscape improvements** for pedestrian safety



**Improved signage** to facilitate wayfinding and ease transfers



**Real Time Information Signage** so riders know when buses will arrive



**Sheltered waiting areas** to protect riders from the elements



**Ticket vending machines** to allow riders to pre-purchase fare cards



**Improved bicycle storage**



**Enhanced lighting and ornamental fencing** to increase safety and security



**Closed-circuit television cameras** to increase rider safety



**Trash receptacles**

*Note that photos are for illustrative purposes only and do not necessarily represent actual transfer facilities.*



# What Will Improve

## Transfer Facilities

- All sites are now in Final Design
  - Design will be completed by Aug/Sept 2016
- Construction work will begin late Fall 2016 and continue through June 2017



# What Will Improve

## Increasing Transportation Partnerships



**Bike Share** – Baltimore City’s Bike Share provider, Bewegen, will be rolling out Bike Share as early as September 2016 with locations at or adjacent to about 10 MTA rail facilities. Additionally, MTA is improving bike parking at all rail stations.



**Car Share** – to be added to more than 20 MARC Train, Light RailLink, and Metro SubwayLink parking facilities

**Microtransit** – A pilot program of this emerging, scaled down version of mass transit that provides a shared, on-demand, and tech-enabled ride.

**Locally Operated Transit Support** – Increasing funding where improved, local connections are needed.



- ***Charm City Circulator*** – Increased funding for three years and close coordination on route planning

- ***Fort Meade Shuttle*** – Additional funding and collaboration with the Regional Transit Authority (RTA) to develop and implement a Fort Meade Shuttle.

- RTA will provide a shuttle connecting Savage MARC Station to Odenton MARC Station and the major employment centers in between.



# BaltimoreLink Project Timeline

## IMPLEMENTATION

QB 40 Enhancements  
Additional MARC Bike Cars

New Express BusLink Routes  
(102, 106, 107, 150) Launch

BaltimoreLink Service and  
Infrastructure Implemented

New & Enhanced Commuter Bus Launch

Fort Meade Shuttle Launch

BaltimoreLink Draft  
#2 Released  
Public Outreach  
Begins (Draft #2)

BaltimoreLink Public Hearings  
Public Education and  
Training Begins

New Website Launches

Public Outreach Ends (Draft #2)

BaltimoreLink Announced to Public (Draft #1)

## OUTREACH

Public Outreach Ends (Draft #1)

Public Outreach Begins (Draft #1)

Express BusLink Public Hearings

Jan.

Mar.

June

July

June

FALL  
2016

WINTER  
2016

SPRING  
2017

SUMMER  
2017



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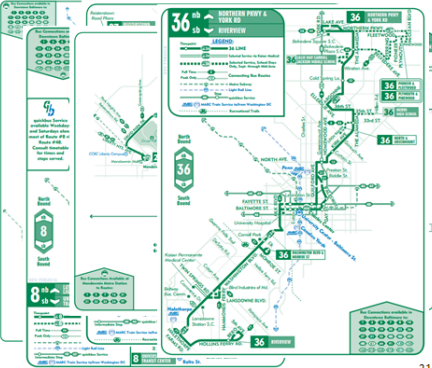
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# Summer Public Outreach

- 20 Public Workshops from July – September
- Communities will receive local analysis of their service
- Also collecting feedback via new website, Hotline, and [mtamaryland.mysidewalk.com](http://mtamaryland.mysidewalk.com)

### Local Analysis – Current Services

- MTA 3 – Towson to Downtown via Loch Raven & Alameda & 33<sup>rd</sup> St
- MTA 8/48/12 – Towson to Downtown via York Rd & Greenmount Ave
- MTA 27 – Reisterstown to Downtown/Port Covington via Howard St
- MTA 22 – Mondawmin to Highlandtown via 33<sup>rd</sup> St
- MTA 36 – Belvedere Square to Downtown to Halethorpe via Kirk & Alameda
- MTA 11 – Towson to Downtown via Charles St
- MTA 61 – Roland Park to Downtown

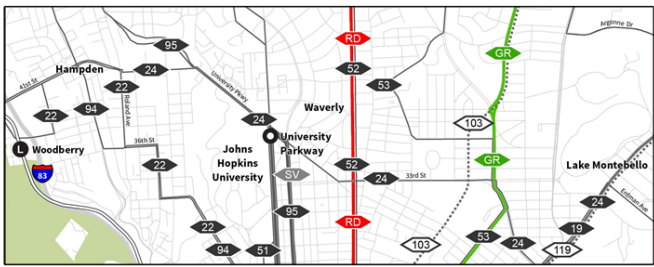


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### Local Analysis – Proposed Services



**Reintroduced Service**

- MTA 3 replaced with CL Green to Downtown via Kirk Ave
- MTA 8/48 replaced with CL Red to Downtown via Greenmount
- MTA 27 replaced with LL 94 to Downtown (Inner Harbor) via Howard
- Extended LL 53 to North Ave Light Rail for additional Connections

**Additional Improvements**

- Maintained current MTA19 to downtown with renamed LL 19
- Reinstated versions of the MTA 11, 12, 61 – LL 51, 52, 95 respectively
- Silver extended to cover Charles/St Paul to Downtown
- LL 22 and LL 24 remain for crosstown connections

22

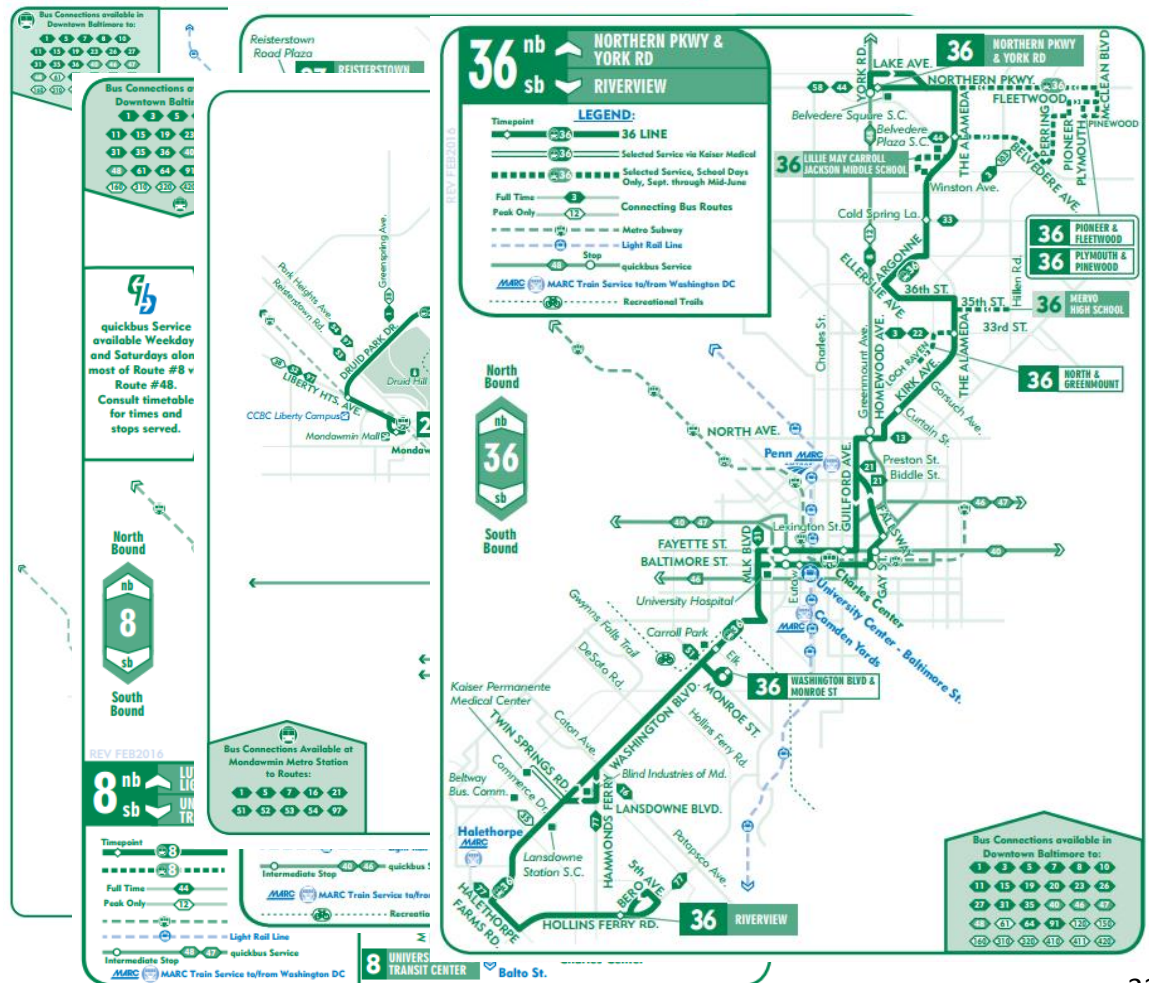
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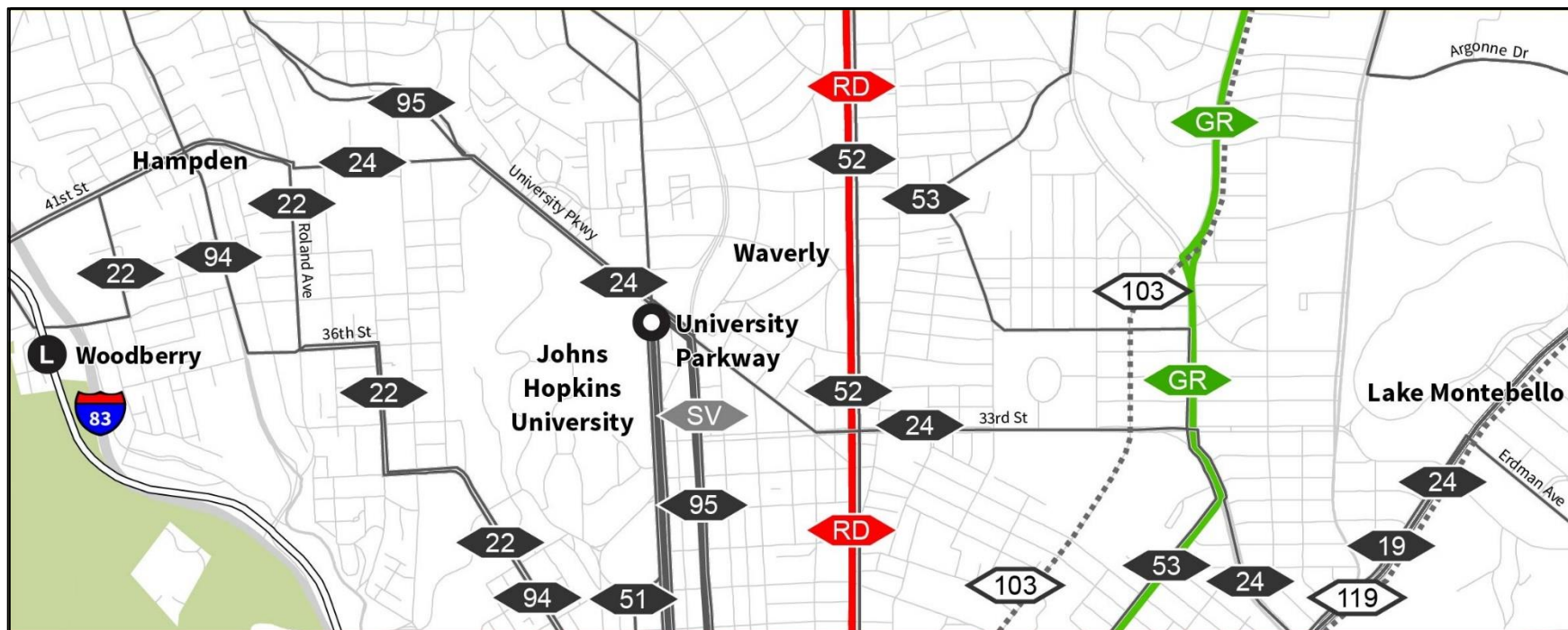


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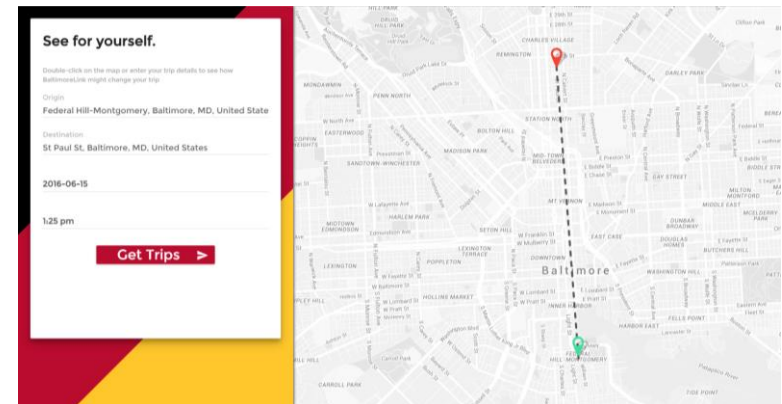
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# New Tools

## Trip Planner

- Compare existing street routing for a given route side-by-side with its BaltimoreLink replacement. Double-click on the map for origins and destinations, or type these in manually



## Google Map

- Interactive Google system map allows you to zoom in on the updated network and view various routes and their frequencies

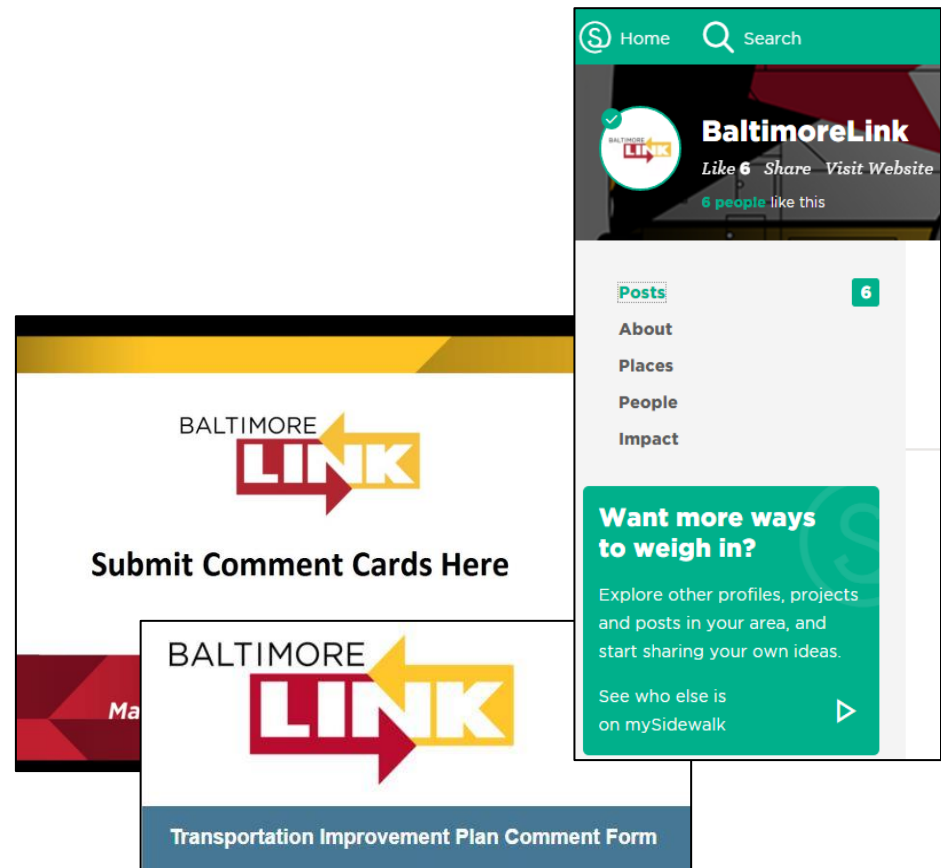
## New Website

- Access BaltimoreLink information easier by reading project updates, finding events in your area and downloading presentations and reports



# How to Get Involved

1. Attend a public workshop
2. Call the Hotline: 410-454-1998 and leave us a message
3. Engage in discussions on [mtamaryland.mysidewalk.com](http://mtamaryland.mysidewalk.com)
4. Compare your transit trips with the BaltimoreLink comparative trip planner
5. Submit a comment on [BaltimoreLink.com](http://BaltimoreLink.com)
6. Spread the word!



# Thank You!

