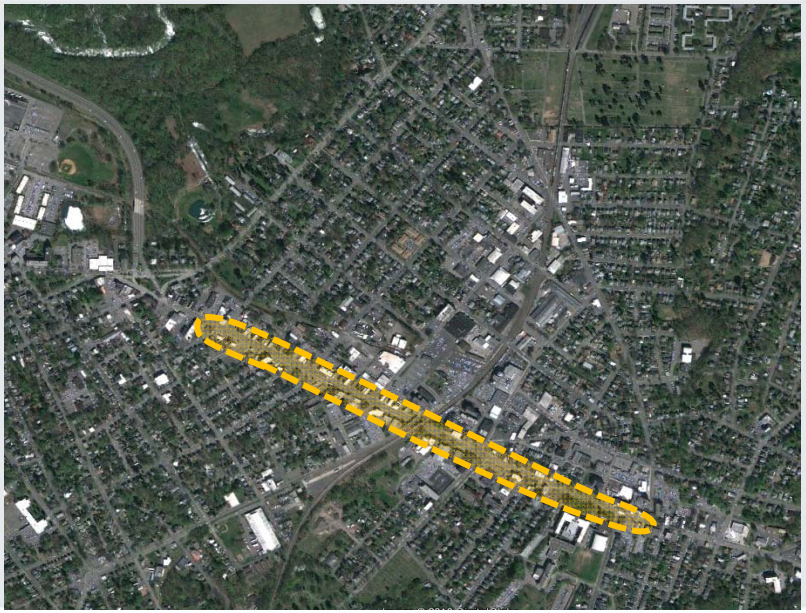
Presentation

Building a Better Broadway

A Conceptual Design Plan



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Presentation

The Kingston Broadway Corridor
One of the City's Three Distinctive Neighborhoods

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Presentation

The Kingston Broadway Corridor
One of the City's Three Distinctive Neighborhoods

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Building a Better Broadway
Purpose of the Project

- A Transportation Project to Renew, Restore and Revive Broadway
- To improve pedestrian and bicycle safety, aesthetics, transit and traffic flow.
- To re-connect the Broadway corridor with surrounding neighborhoods and amenities, such as the Kingston Point Rail Trail and other multi-use trails
- To revitalize this important regional corridor

To accomplish these goals, the City has recently been awarded almost $4 million in various state and federal grants to renovate the physical layout of Broadway and connect the surrounding streets.

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Building a Better Broadway
This is Your Canvas

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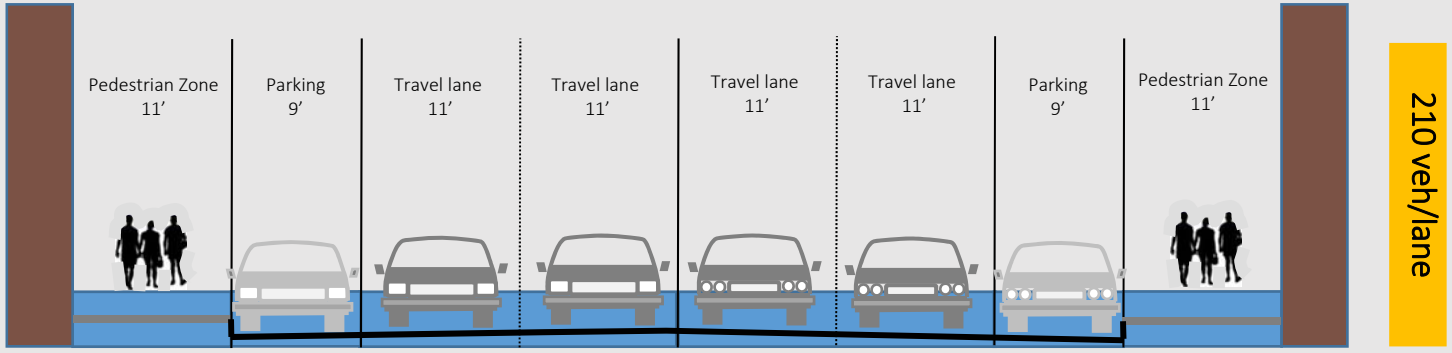
Traffic – Broadway from Liberty Street to Cedar Street

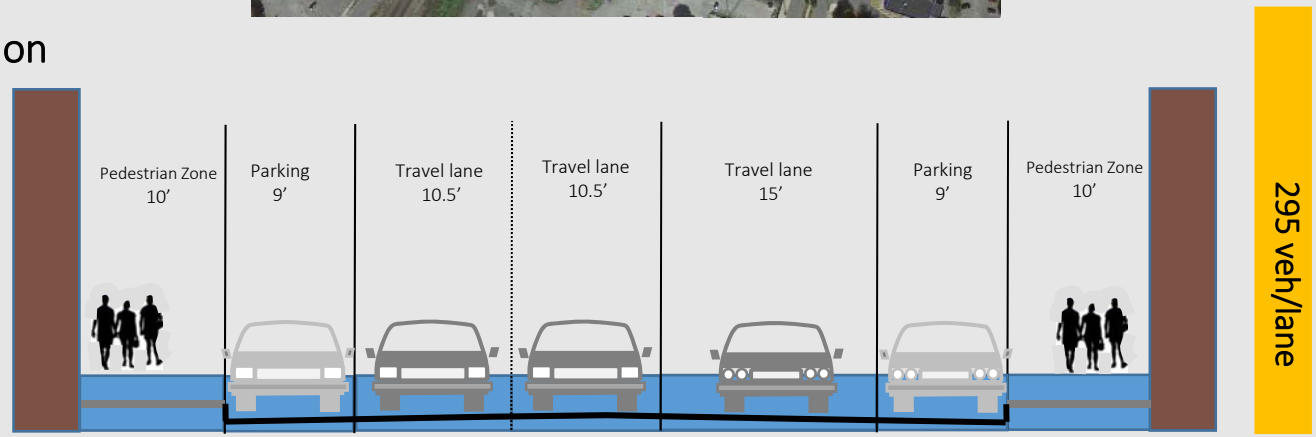
4-lane Cross Section



835 VPH Maximum Traffic Volume in One Direction

Traffic – Broadway from Thomas Street to Hoffman Street

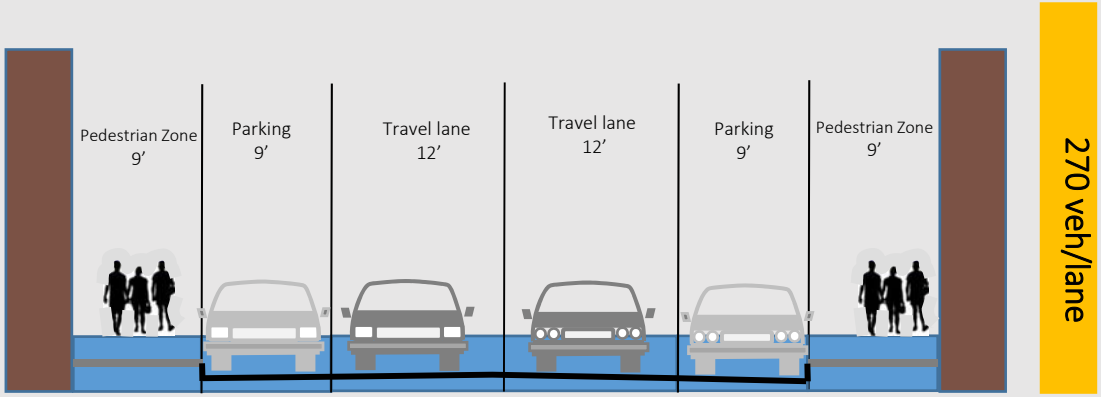
3-lane Cross Section
More Traffic,
In Fewer Lanes



885 VPH Maximum Traffic Volume in One Direction

Traffic – Broadway from O'Reilly Street to E/W Chester St.

2-lane Cross Section
More Traffic Per Lane



540 VPH Maximum Traffic Volume in One Direction

Traffic

Broadway Looking west from Franklin Street at 5 pm – Two Lanes Westbound. Traffic Mostly in One Lane

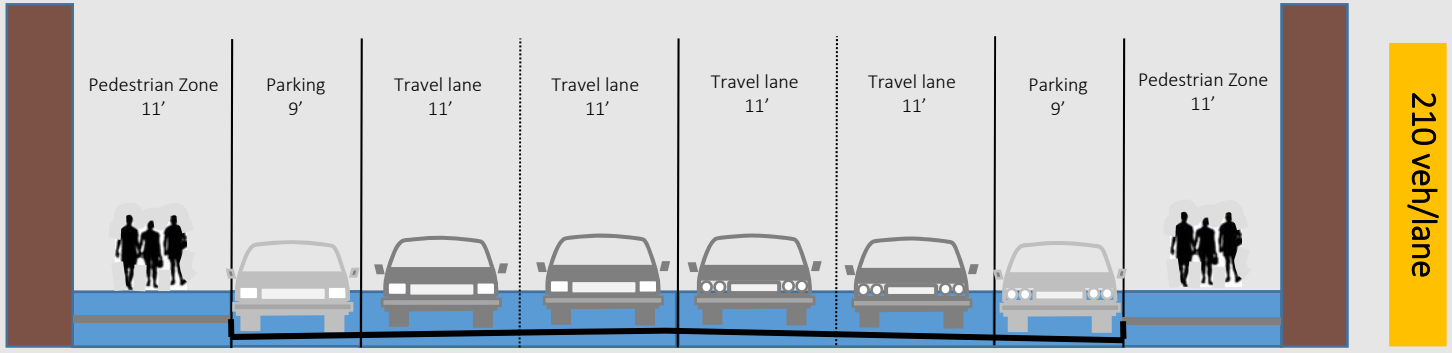
Presentation

Traffic

Broadway Looking west from Cornell Street at 5 pm – Two Lanes Eastbound. Traffic Mostly in One Lane

Traffic – Broadway from Liberty Street to Cedar Street

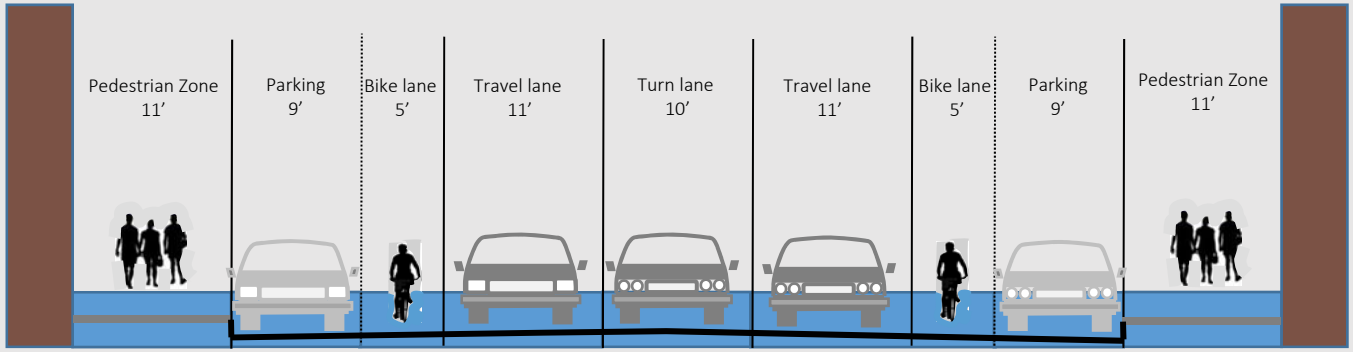
4-lane Cross Section



835 VPH Maximum Traffic Volume in One Direction

Traffic – Broadway from Liberty Street to Cedar Street

3-lane Cross Section

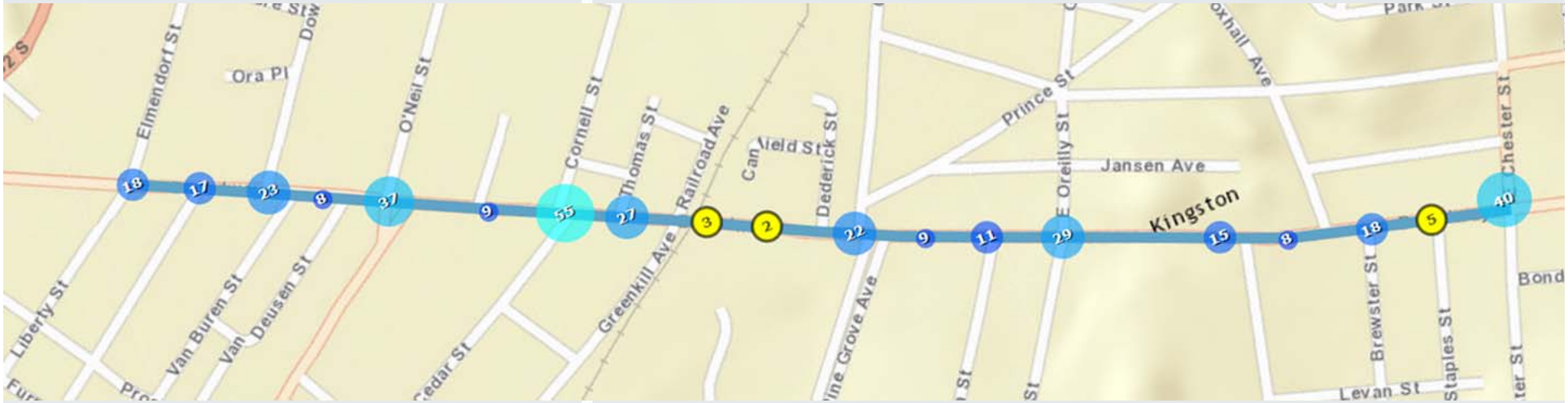


280 veh/lane

835 VPH Maximum Traffic Volume in One Direction

Presentation

Safety – Accident History



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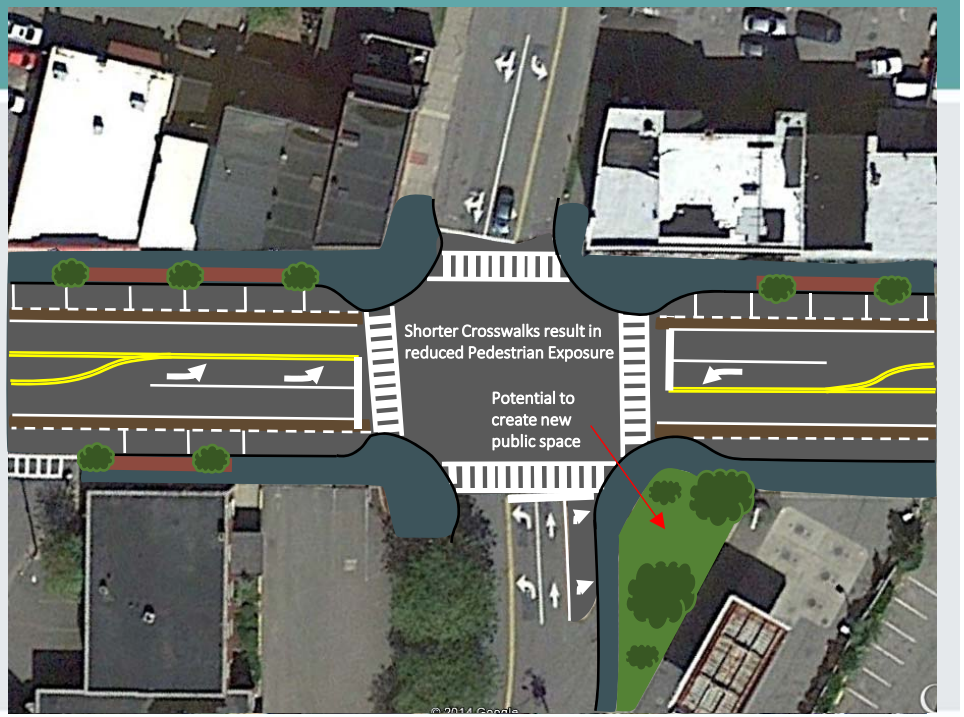
Place Making – Broadway at Henry Street



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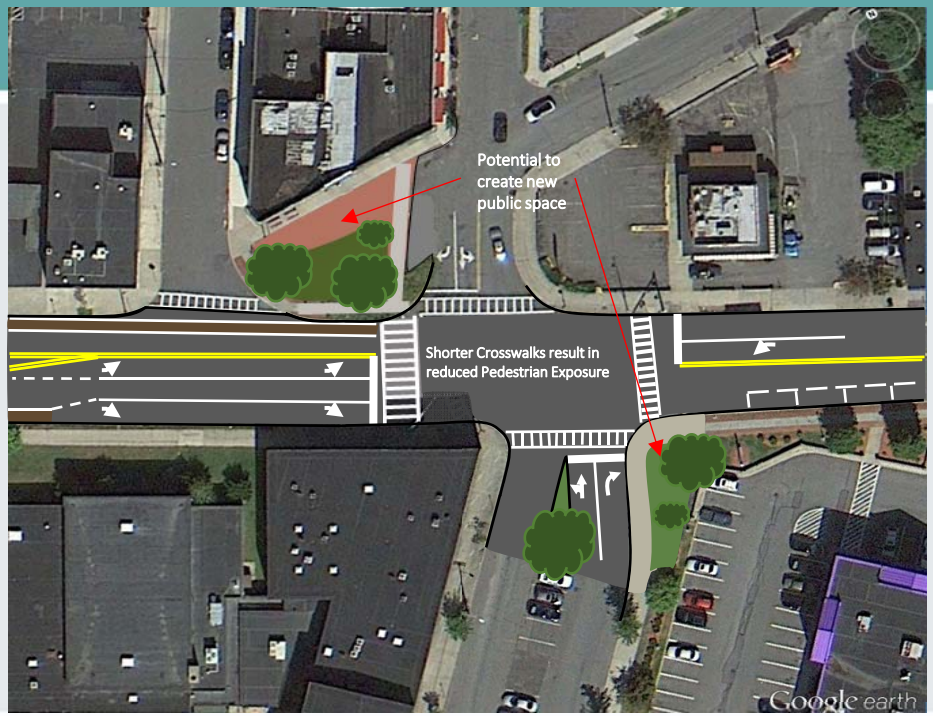
Place Making – Broadway at Grand Street



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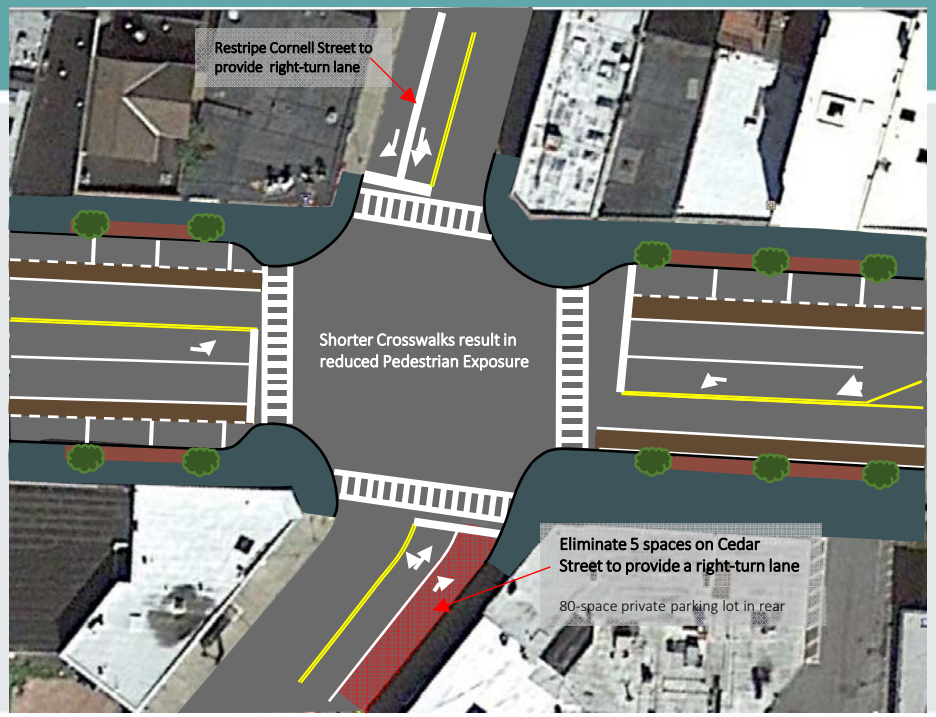
Place Making – Broadway at Cedar Street



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Bicycles – Broadway from Liberty Street to Grand Street

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Bicycles – Broadway from Liberty Street to Grand Street

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Bicycles – Bicycle Lanes, what do they look like?

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Bicycles – Bicycle Lanes, what do they look like?

E.G., From Hoffman Street to E/W Chester

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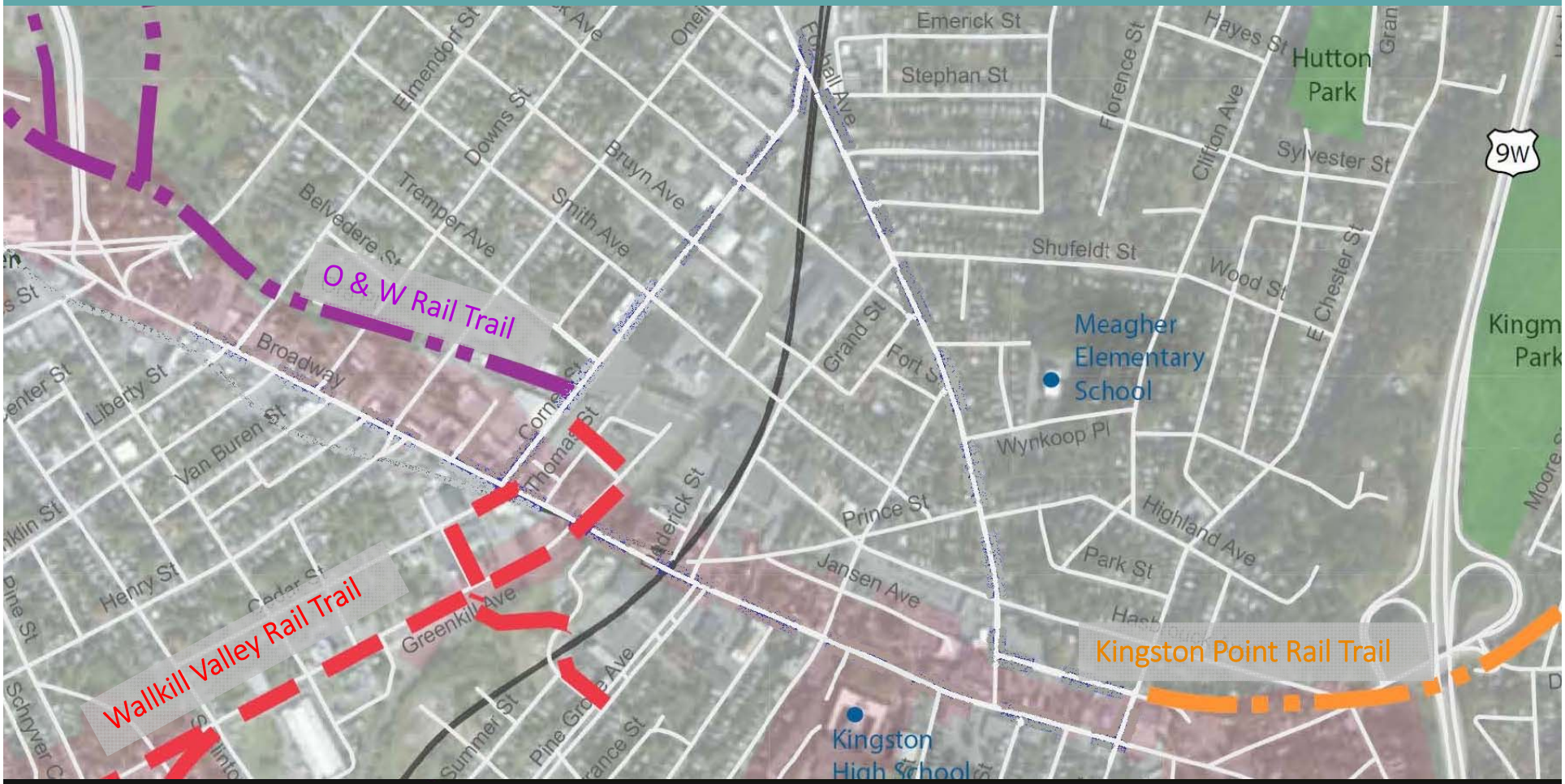
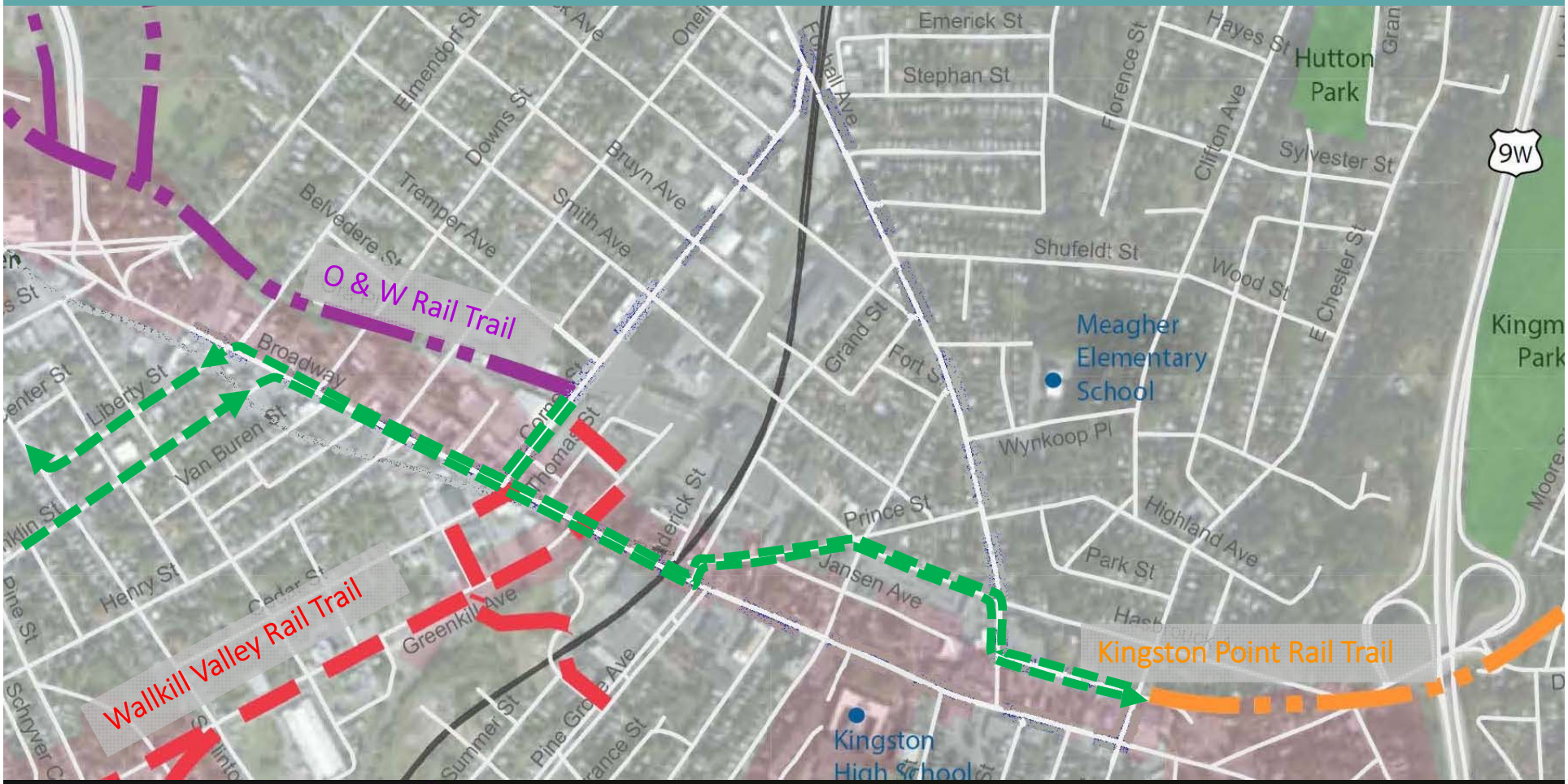
Trails – Making Kingston a Rail Trail Hub



Opportunity Presentation

Trails – Making Kingston a Rail Trail Hub



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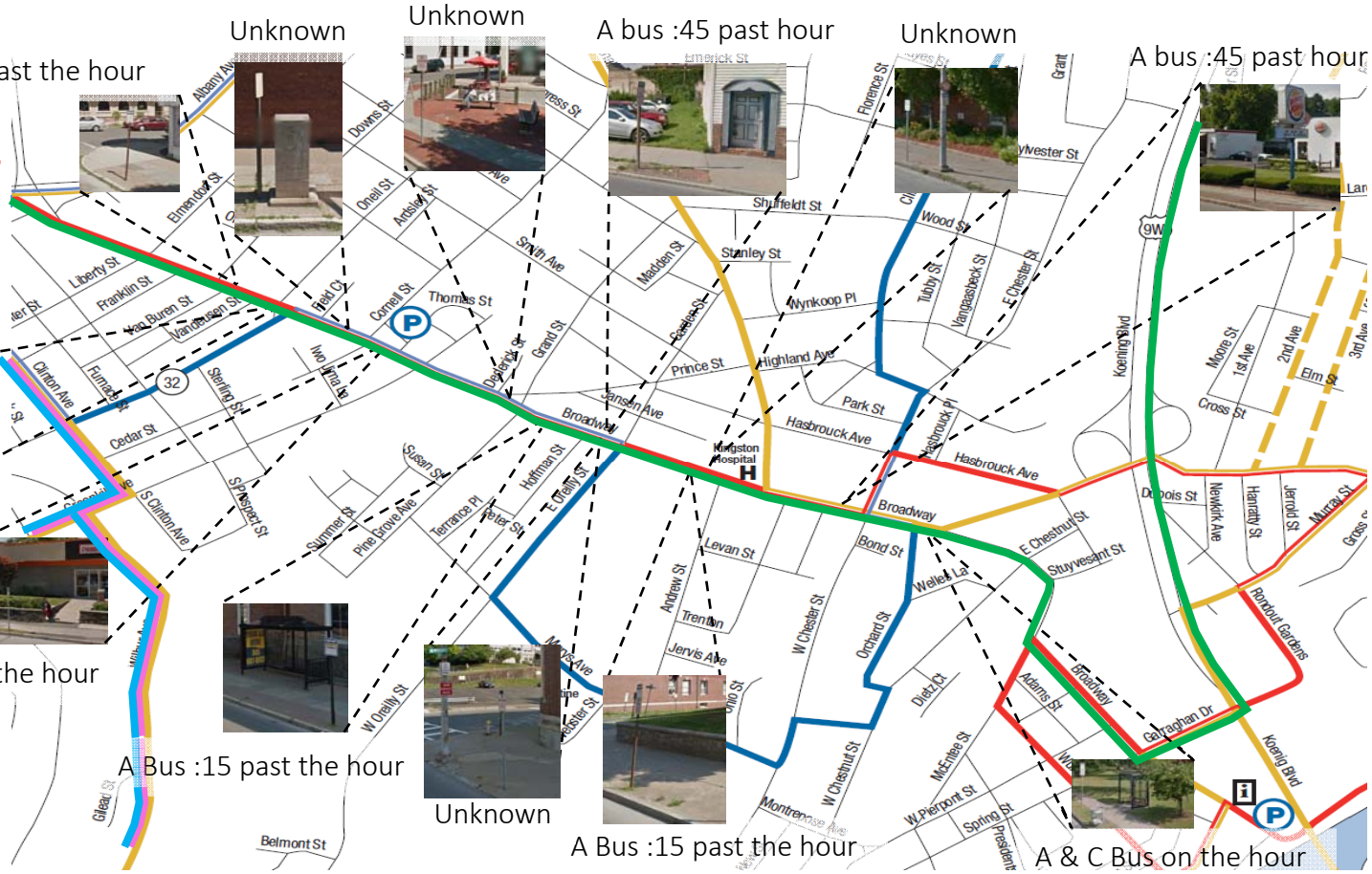
Transit – Bus Routes

Where do YOU want to catch the bus?

When do YOU want to catch the bus?

How do you want to wait for the bus?



Transit – Bus Facilities

Bus Shelters

Benches

Place Making – From Concept to Reality

Streetscape Experience

- Pittsfield
  - Before and During Construction
  - Graphics convey design intent
  - State-funded
  - Locally maintained

Place Making – From Concept to Reality

Streetscape Experience

- Pittsfield
  - Attention to details

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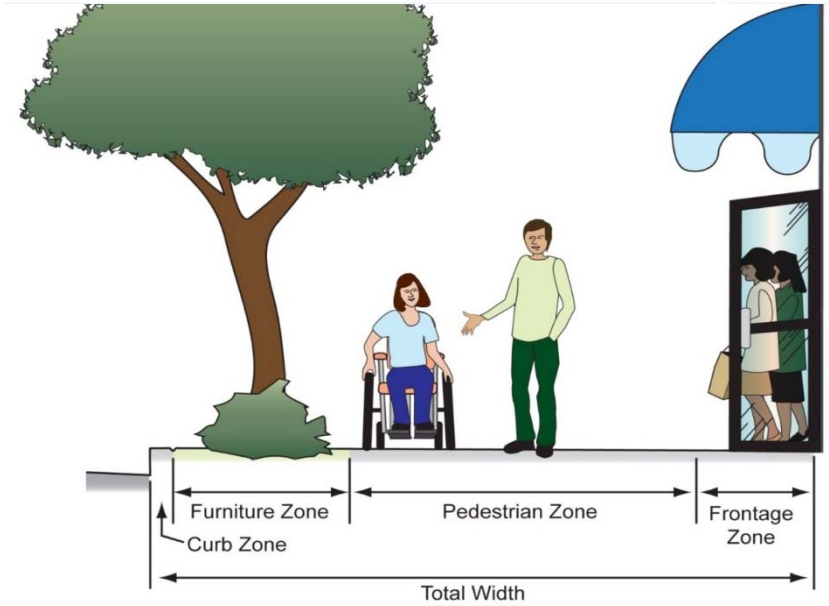
Streetscape – Principles

Sidewalk Corridors – The Zone System

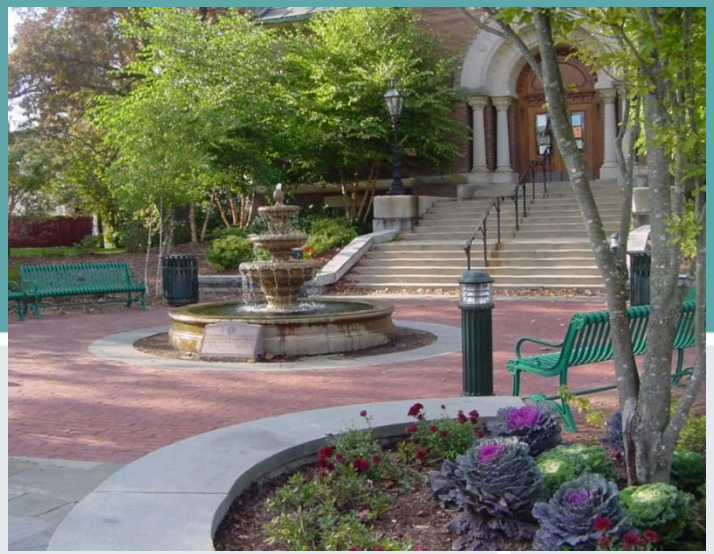


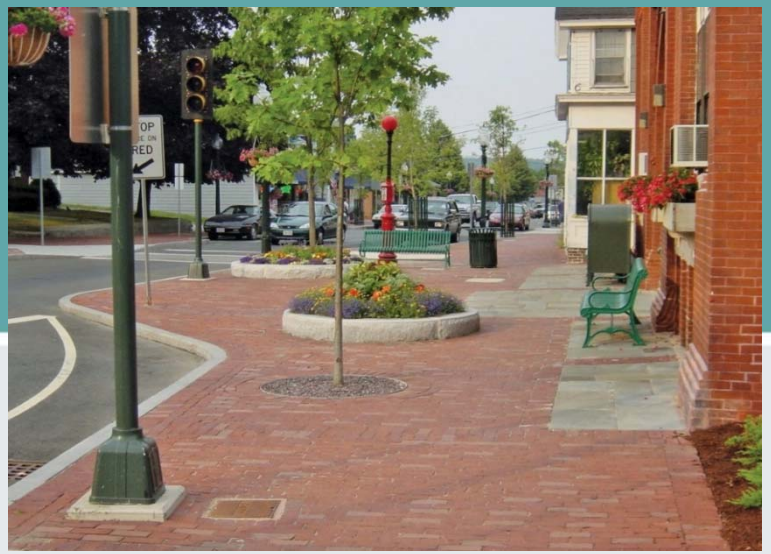
The sidewalk corridor extends from the edge of roadway to the right-of-way and is divided into 4 zones:

Curb zone	(6”)
Furniture zone	(4-6’)
Pedestrian zone	(8-12’)
Frontage zone	(3’ for doors, 8’ for café seating)

Streetscape – Recent Improvements

Streetscape – Examples





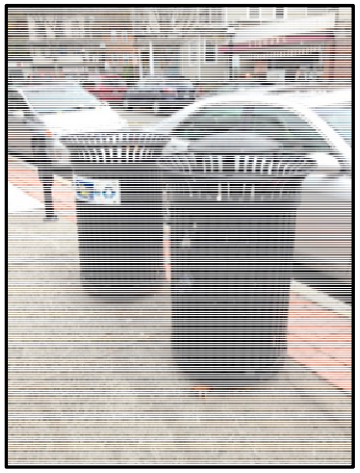
Streetscape Experience

- Amesbury
  - Recaptured roadways for pedestrian spaces
  - Created a community identity
  - Durable materials
  - Ongoing downtown improvements

Streetscape – Examples

Streetscape – Furniture

Receptacles



Benches

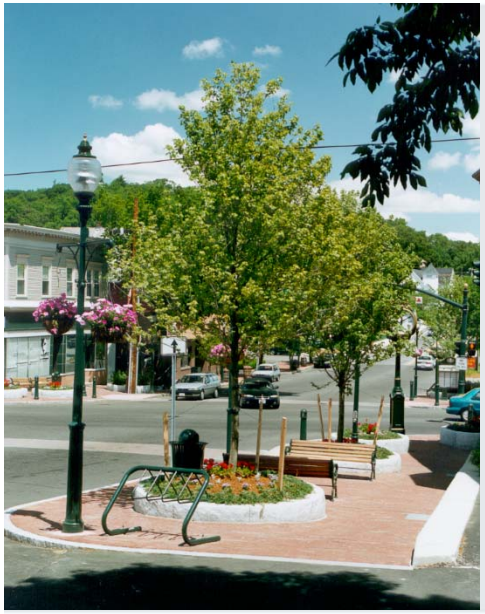
Streetscape – Furniture

Planters

Bike Racks

Opportunity Presentation

Streetscape – Landscape Elements



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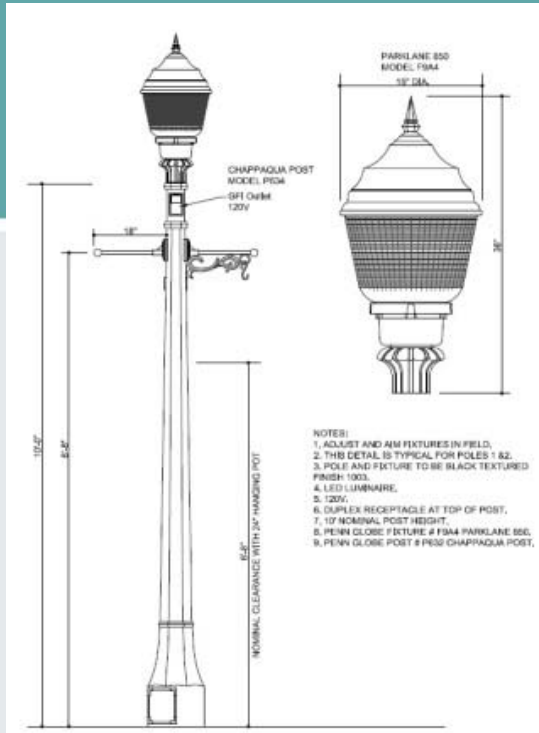
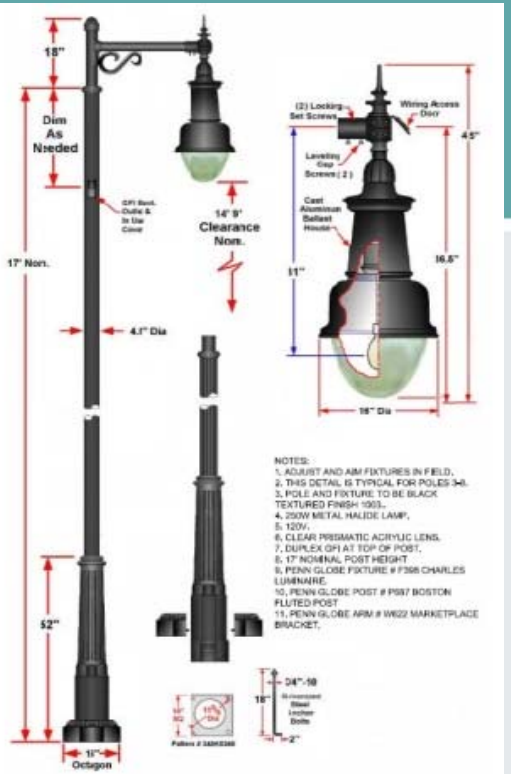
Streetscape – Lighting Elements



TYPICAL LUMINAIRE AND POST AS PER TOWN CODE

NO SCALE



TYPICAL ROADWAY LUMINAIRE AND POST

NO SCALE

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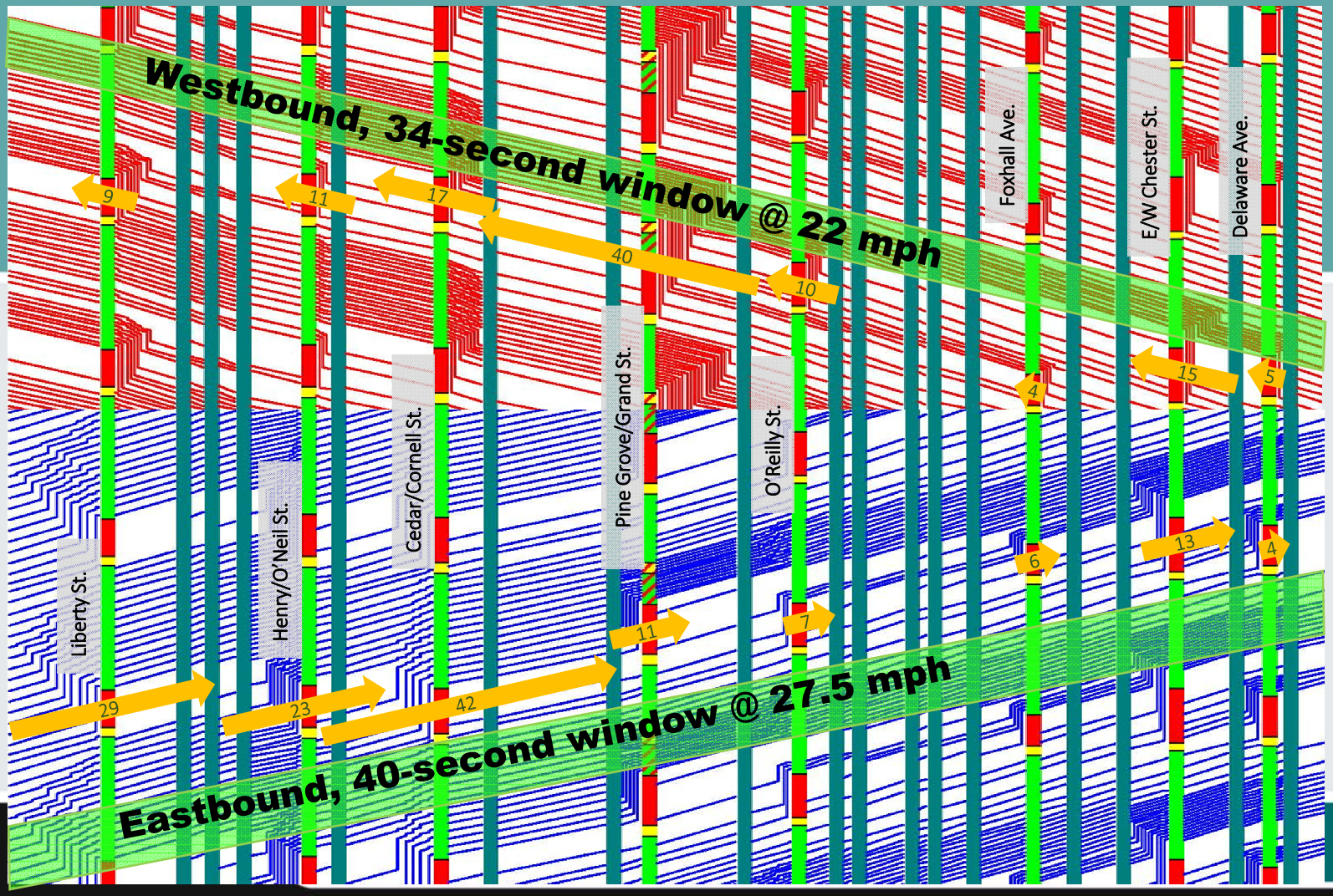
Traffic – How will the Corridor Perform?



Traffic – How will the Corridor Perform?

Detailed Measures of Effectiveness — 2014 Existing Conditions Broadway Corridor
11/15/2014

Broadway

Direction	EB	WB	All
Total Delay / Veh (s/v)	6	3	5
Stops / Veh	0.21	0.18	0.19
Average Speed (mph)	14	18	15
Total Travel Time (hr)	40	25	65
Distance Traveled (mi)	544	442	985
Fuel Consumed (gal)	48	34	82
Fuel Economy (mpg)	11.3	13.2	12.1
CO Emissions (kg)	3.37	2.34	5.71
NOx Emissions (kg)	0.66	0.46	1.11
VOC Emissions (kg)	0.78	0.54	1.32
Performance Index	26.3	13.4	39.7

Traffic – How will the Corridor Perform?

Detailed Measures of Effectiveness — 2014 Existing Conditions Broadway Corridor
11/15/2014

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Detailed Measures of Effectiveness — Future 25% Growth
11/15/2014

Broadway

Direction	EB	WB	All
Total Delay / Veh (s/v)	22	6	15
Stops / Veh	0.23	0.23	0.23
Average Speed (mph)	6	13	8
Total Travel Time (hr)	110	42	152
Distance Traveled (mi)	680	552	1232
Fuel Consumed (gal)	107	52	159
Fuel Economy (mpg)	6.4	10.6	7.8
CO Emissions (kg)	7.45	3.64	11.09
NOx Emissions (kg)	1.45	0.71	2.16
VOC Emissions (kg)	1.73	0.84	2.57
Performance Index	94.3	28.4	122.7

Traffic – How will the Corridor Perform?

Detailed Measures of Effectiveness — 2014 Existing Conditions Broadway Corridor
11/15/2014

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Detailed Measures of Effectiveness — Future 25% Growth
11/15/2014

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VOC Emissions (kg)	1.73	0.84	2.57
Performance Index	94.3	28.4	122.7

Detailed Measures of Effectiveness — Future 25% Optimized Road Diet
11/15/2014

Broadway

Direction	EB	WB	All
Total Delay / Veh (s/v)	4	3	4
Stops / Veh	0.14	0.22	0.17
Average Speed (mph)	16	16	16
Total Travel Time (hr)	41	34	75
Distance Traveled (mi)	678	551	1228
Fuel Consumed (gal)	50	41	91
Fuel Economy (mpg)	13.6	13.4	13.5
CO Emissions (kg)	3.48	2.88	6.35
NOx Emissions (kg)	0.68	0.56	1.24
VOC Emissions (kg)	0.81	0.67	1.47
Performance Index	20.8	18.5	39.3

Presentation

Building a Better Broadway
Discussion

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