

Broadway for Everybody

Bolstering our Economy & Health

for the League of Women Voters of the Rivertowns

by Daniel Convissor, Director, Bike Tarrytown

November 27, 2018

When we design places only for cars, they fail everyone, including drivers



When we design multi-modal places, they help everyone, including drivers



People who drive aren't an ever growing constituency to be placated



Travel choices are shaped by public policy

Bikes Mean Business

Merchants Support Bike Lanes

When bike lane was proposed
“It would be devastating for businesses. If people can’t park, it will put people off.”

After bike lane was built
“The road has become more vibrant with the increase in pedestrians and cyclists.”

Steve Robson
Acorn Hardware
Jesmond, UK



Residential Customers



Cyclists Shop Locally

Shopping by car? Going to Route 119 is easier. (Sleepy Hollow Manor folks even go to Pleasantville!)

Shopping by bike? Going to downtown Tarrytown is easiest.

Residential Customers



We're SOOO Close

21,000 people live in Tarrytown and Sleepy Hollow

All within 2 miles of downtown

Super easy biking distance

Often faster than driving/parking

Residential Customers



Disposable Income

Owning & operating a car costs
\$10,000 / year

Families that forgo 2nd (and 1st)
cars get to spend that money...

In local stores

Residential Customers

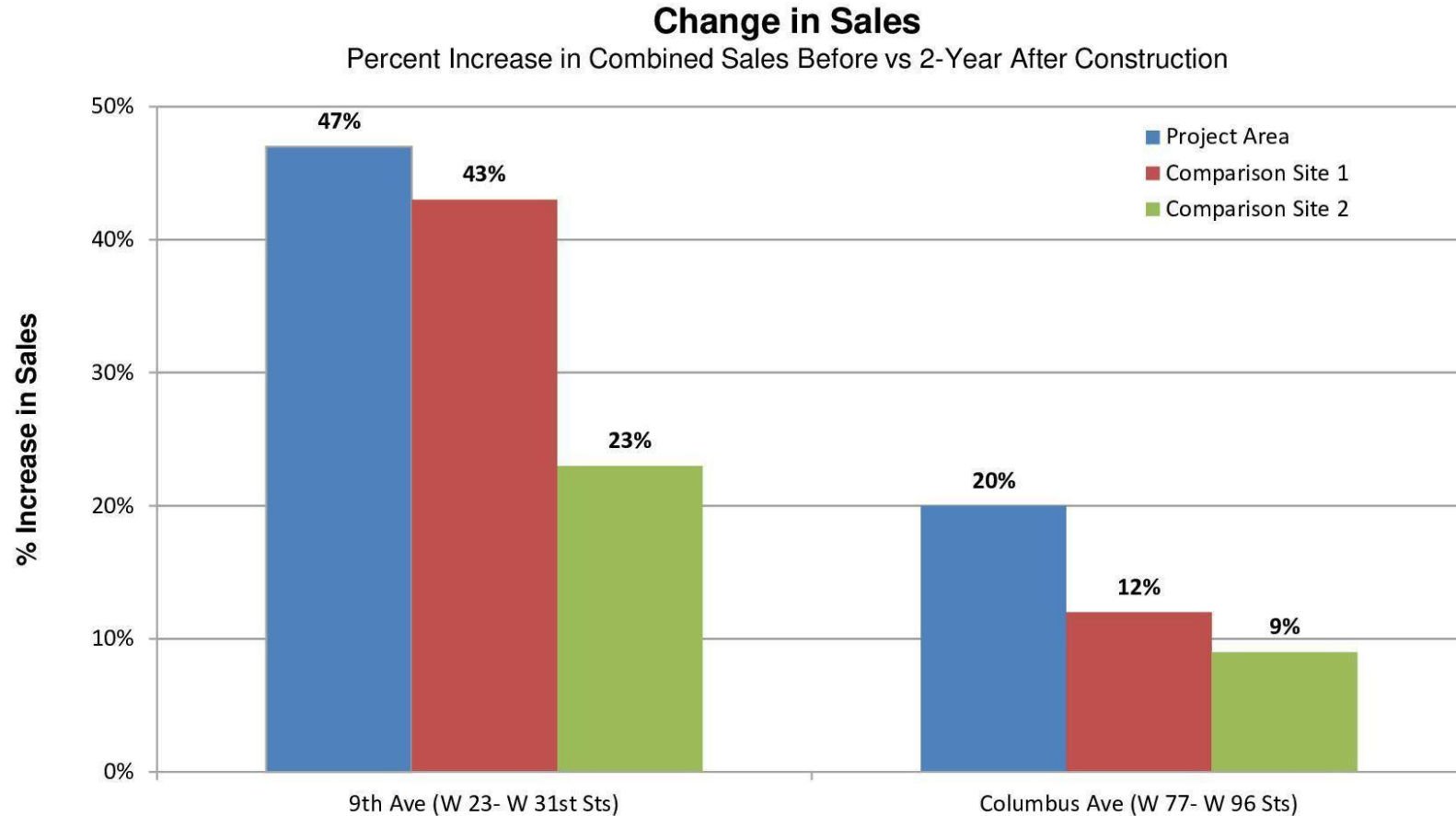
Each Cyclist Spends More



<u>Shop</u>	<u>Bike</u>	<u>Car</u>
Convenience	\$82	\$69
Bars	\$82	\$41
Restaurants	\$48	\$40

Monthly spending.
(Clifton, et al, "Consumer Behavior and Travel Choices," TRB, 2013)

Protected Bike Lanes Boost Business



Commuter Customers



Rockland ↔ Metro North

Nyack area residents will ride to Tarrytown Station via TZB path

People will shop in Tarrytown on the way home *if* we provide safe streets for them

If not, they'll go straight home

Office Space Customers



Active Transport Attracts Talent

Younger workers moving to cities so they don't have to drive

Companies following, leaving suburban offices vacant

Building a safe bike network will make living & working here more desirable

Recreational Customers



Route 9W

5,000 people on nice Sundays*

Bridge will bring them here

+ new riders taking train home

+ attract Westchester riders too

(* Police Chief, Piermont, NY, 2017)

Recreational Customers



Disposable Income

Many high earners

Bikes: \$1,000 - \$10,000

Recreational Customers



Family Fun

Confident cyclists are coming,
no matter what

But families will come only if
there's a protected bike lane

Visit from Nyack, Irvington,
Dobbs Ferry, etc

Recreational Customers



Huge Return on Investment

Outer Banks, North Carolina

Built

\$7m of bike infrastructure

Produces

\$60m in bike tourism **per year**

(Lawrie, et al, "Pathways to Prosperity," NCDOT, 2014)

Protected Bike Lanes Help People Driving

Bike Lanes Help People Driving



Unpleasant Passing

People driving nervous about hurting someone

People cycling scared of someone crashing into them

Bike Lanes Help People Driving



Stressful Cycling

Don't *want* to hold up people driving

Have to

Often no room for passing

Bike Lanes Help People Driving



Practicalities of Passing

Pack: shorter pass, person driving makes full lane change

Single File: longer pass, person driving straddles lanes

Uhhh... not *supposed* to pass double yellow line anyway

Bike Lanes Help People Driving



Road Rage

When unable to pass, some people driving get angry

- verbal abuse
- throw things
- menacing with vehicle
- assault

Degrades public safety and sense of community

Bike Lanes Help People Driving



Shorter Crosswalks

Safer for people walking

Takes less time to cross

So people driving wait less

Bike Lanes Help People Driving



Sidewalk Sanctuary

People ride on sidewalks seeking safety away from cars

Providing protected bike lanes gets cyclists off sidewalks

Bike Lanes Help People Driving



But, Scofflaw Cyclists!

People cycling & driving run stop signs & signals at same rate*

Law breaking bikers are annoying
Law breaking drivers are deadly

Bike facilities boost compliance**

(* "The Myth of the Scofflaw Cyclist," Streets MN, 2017)

(** "Case Study, Dearborn St, Chicago," NACTO)

Bike Lanes Help People Driving



A Place for Everybody

Giving people a place to cycle means giving people places to drive and walk

- Smoother flow
- Safer
- Worry free
- Peaceful interactions

Parking

Parking



Can't Compete on Parking
Supermarkets & big boxes win
(Parking lots bigger than stores!)

If we tried to do this, makes:

- 1/2 of space into dead zones
- Streets filled with more traffic, fumes, noise, crashes

Parking



Compete on Experience

People drawn to lively places

Do what it takes to get there

Policies can make walking, cycling, bus, train the easiest way

Making the place *even* nicer

Spending from 20' of Curb Space

(say your average customer spends \$20)

1 Car: \$20-\$40

(average 1-2 people)
(max. 5 people: \$100)



**10 Bikes:
\$200 !**

\$20

\$20

\$20

\$20

\$20

\$20

\$20

\$20

\$20

\$20



VÁSÁROLJ
BRINGÁVAL!

SIAMMÁL
SŐNDŐRŐKESÉB
MÁKINÉ A PIÁCRA,
DE KISEBB
ÖNKÖLTSÉGGEL
TÁRSASÁGAT IS
BRINGÁVAL
SZÁLLÍTHATOK

PEOPLE SHOP BY BIKE EVERYWHERE
IT'S CONVENIENT, FAST, & FREE

 BIKE TARRYTOWN



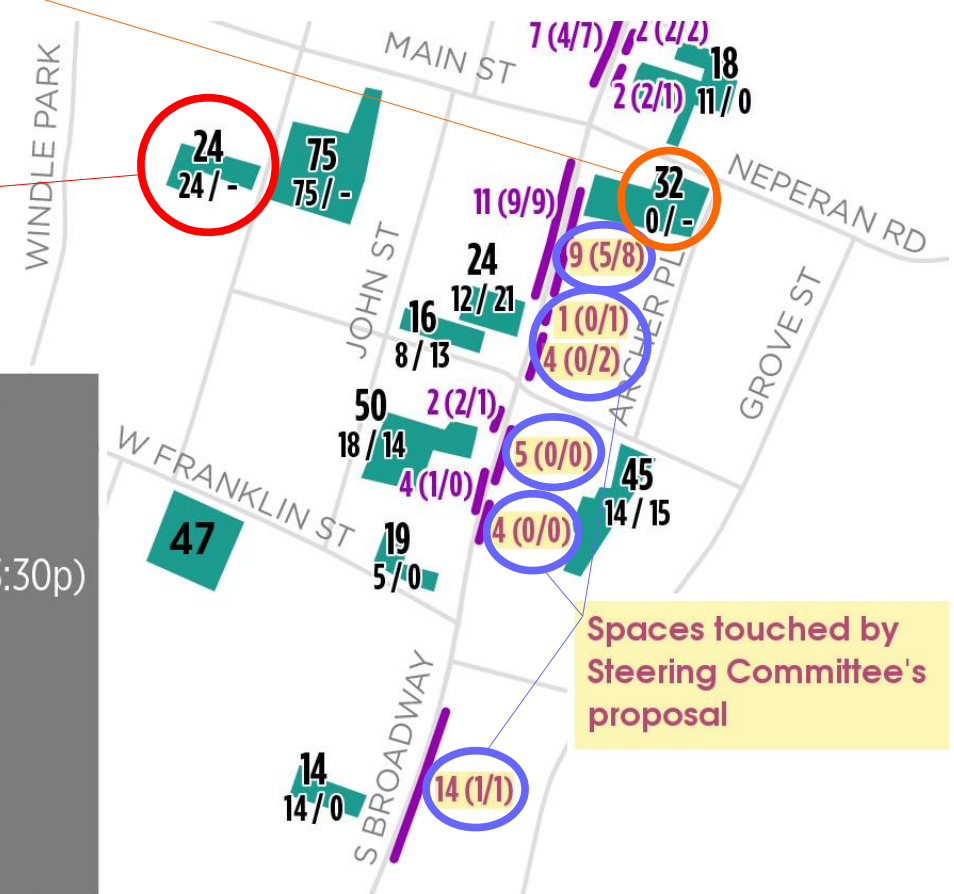
Parking

Tarrytown using eminent domain to buy 21 spaces from Citibank. - Land assessed ~\$480,000. Forgoing ~\$16,000 in taxes / year.

This parking lot cost Tarrytown \$650,000 (\$27,000 / space)

RT 9 PARKING SUPPLY & OCCUPANCY

- 50 Total Supply
- (25 / 15) Sat. Midday Occupancy (7/22, 11:30a-3:30p)
- Wed. Evening Occupancy (7/19, 5-9p)
- 10 On-Street Parking
- 50 Off-Street Parking



Parking

Low Cost of High Wheeled Joys

Compare \$650,000 for 24 car parking spaces to:

\$4,000

Turning 3 parking spaces

Into 30 parking spaces



Parking

Proper Pricing = More Parking

Paltry Present:

- \$1 / hr @ curb & lots
- Free: 6p - 9a & Sundays & permit holders
- Precious resource given away, squatted on
- Popular places perpetually parked up

Prodigious Possibility:

- \$1 / hr @ lots, \$2 / hr @ curb in core
- Everyone pays 9a - midnight
- Popular places have open spaces



Parking



Guidance System

Loads of spots sit empty

Trick is finding them

Show people where to go

Park right away

Externalities

Externalities



Social Capital

Cycling gets us out in the world

Engage friends & neighbors

Increases trust and community participation

Externalities



Independence

1/3 of people can't drive

- young
- old
- disabled
- poor

Give people freedom to travel

Be parents, not chauffeurs

SAFE INFRASTRUCTURE MEANS MOBILITY FOR ALL

 **BIKE TARRYTOWN**

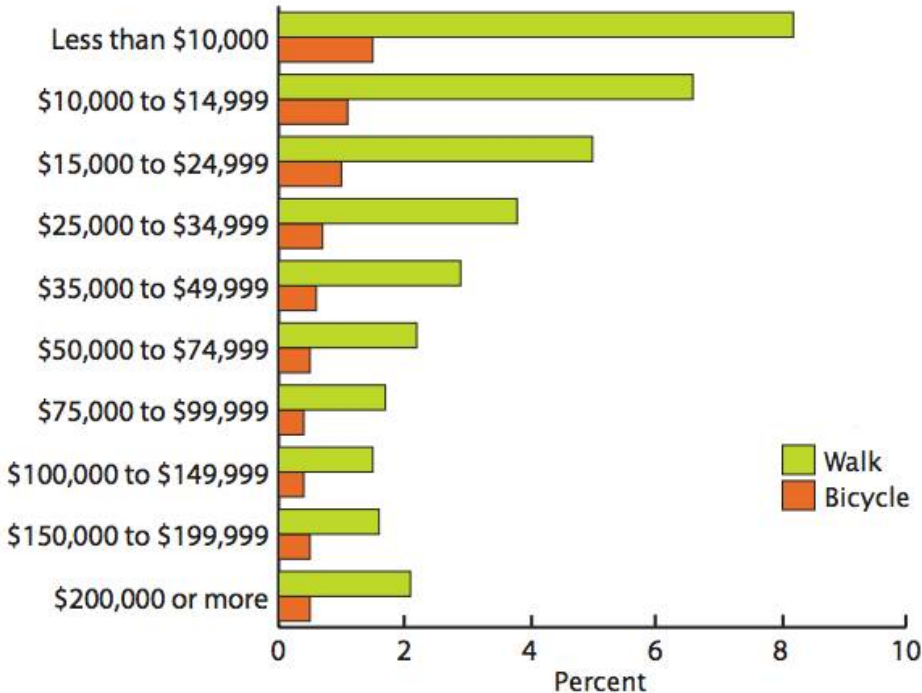


Externalities

Equity

Lower-income people
commute by bike & foot more

Safe infrastructure means
affordable access to more jobs



(Census Bureau, American Community Survey, 2008-2012)

Externalities

Property Values

Within 150' of bike path: +4%

Proximity to safe bicycle network

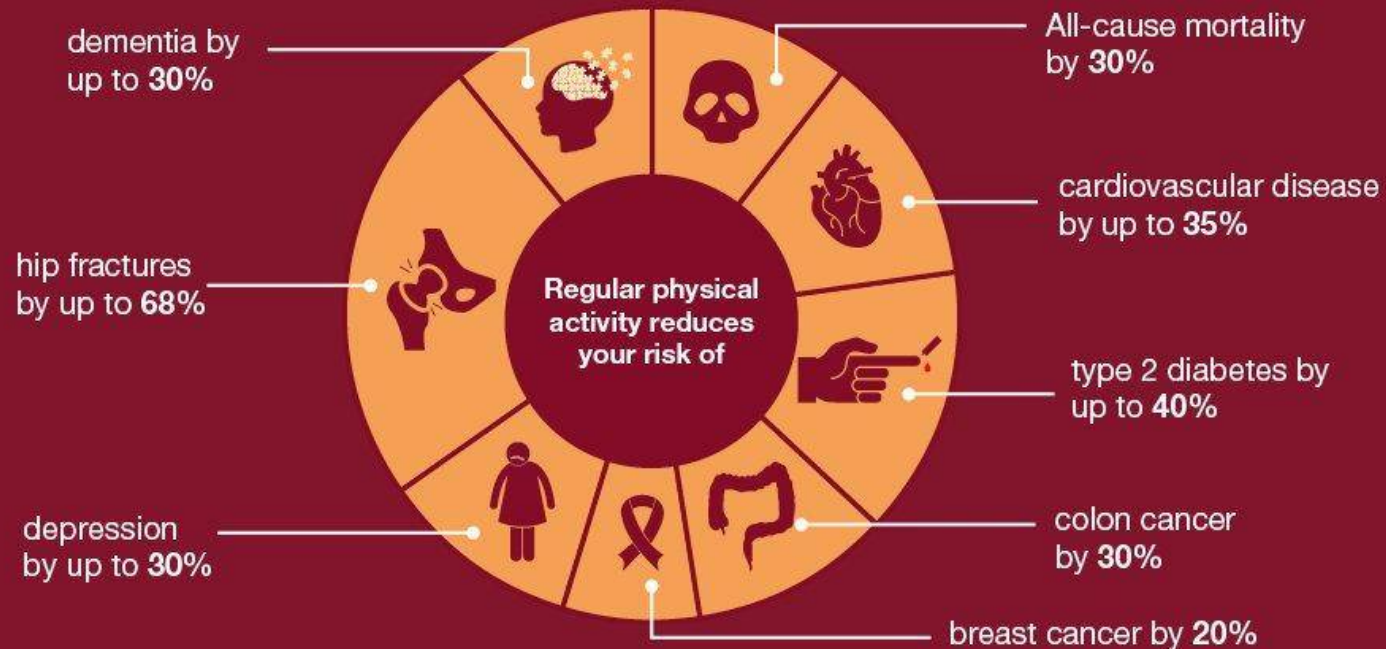
- Single family homes: +1 - 2%
- Multi family homes: +6 - 8%



(Racca & Dhanju, "Property Value/Desirability Effects of Bike Paths Adjacent to Residential Areas," 2006)
(Wei Shi, "Impact of Bike Facilities on Residential Property Prices," 2017)

Externalities

What are the health benefits of physical activity?



Externalities



Pollution

Tailpipe emissions

- carbon monoxide
- nitrogen oxides
- sulfur dioxide
- hydrocarbons
- benzene

30,000 premature deaths / yr

It's worse *inside* cars

Externalities



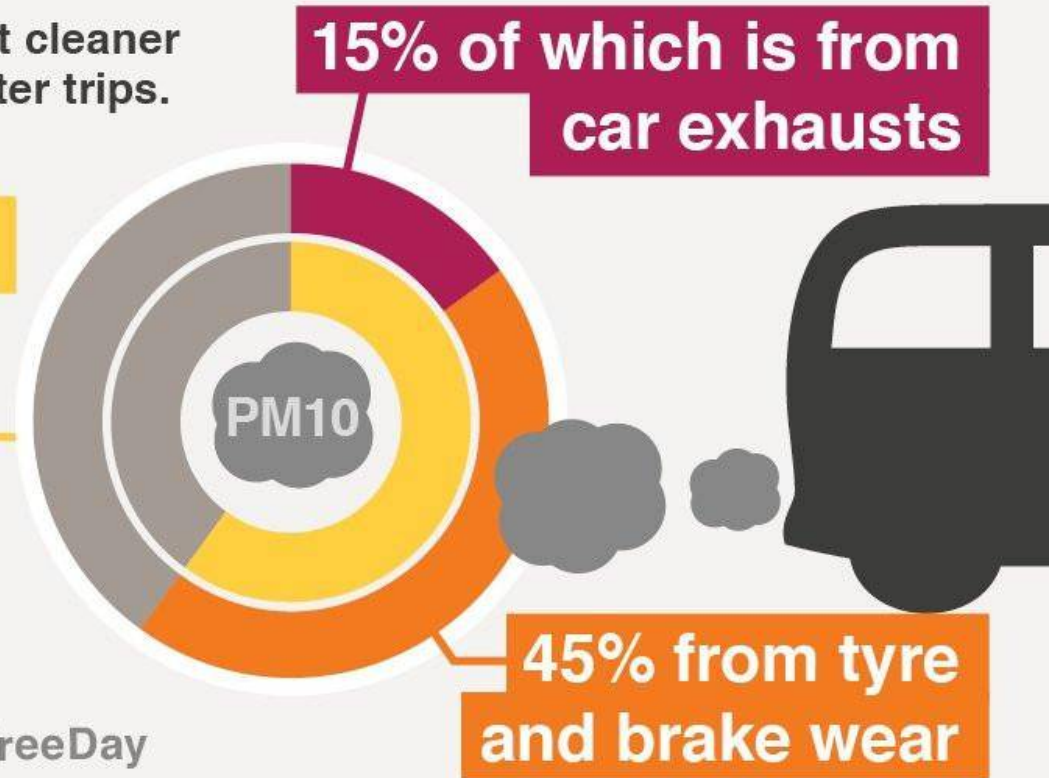
Our roads need fewer not just cleaner cars. Walk and cycle for shorter trips.

60% of air pollutant PM10 comes from road transport*

*The Department for Environment, Food and Rural Affairs, 2018



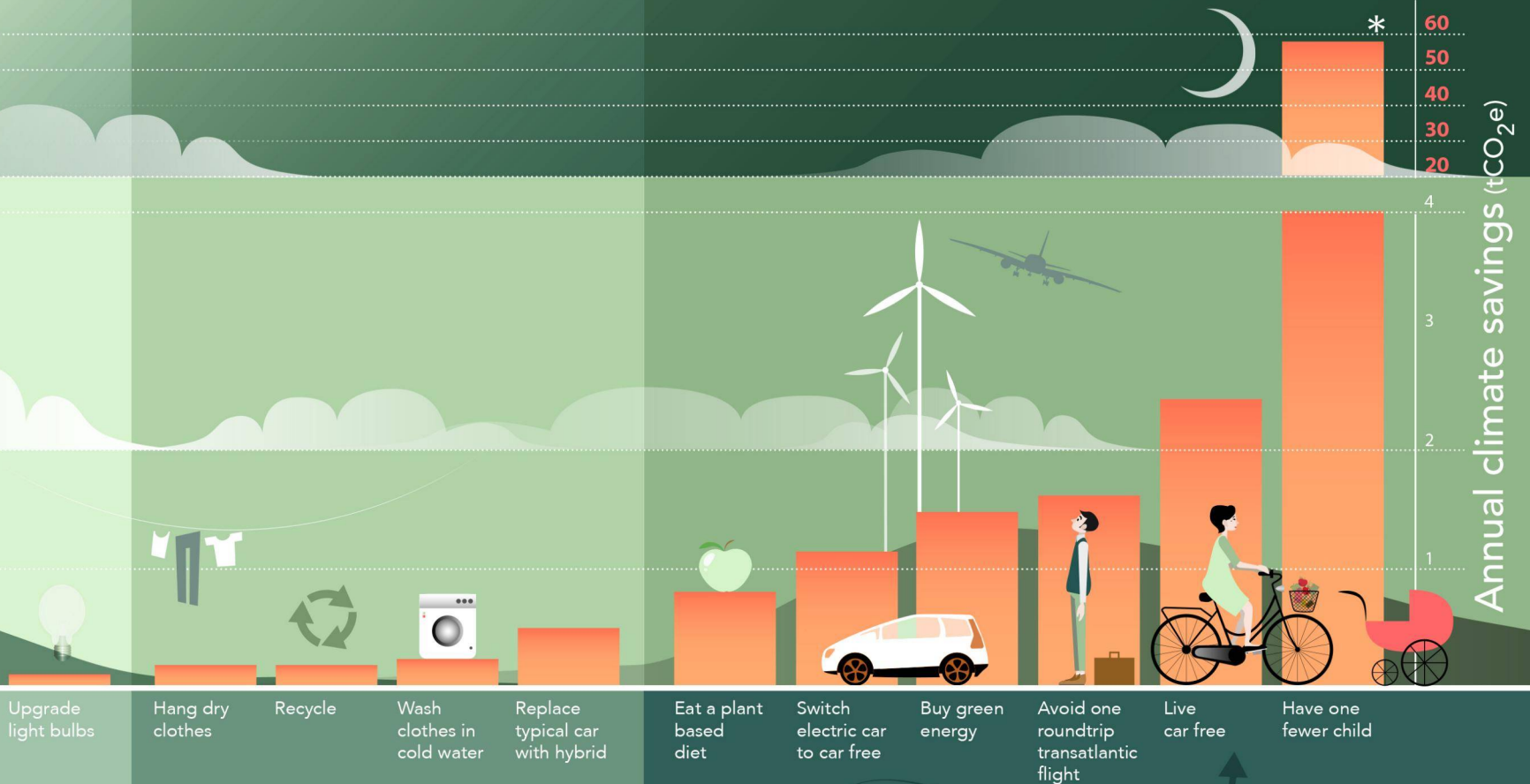
#WorldCarFreeDay



Personal choices to reduce your contribution to climate change

* Cumulative emissions from descendants; decreases substantially if national emissions decrease.

Average values for developed countries, based on current emissions.



Low Impact

< 0.2 tCO₂e

Moderate Impact

0.8-0.2 tCO₂e

High Impact

> 0.8 tCO₂e

Externalities



Broadway Crashes

870 people injured
42 seriously
1 killed

115 were walking & biking

Financial Impact: \$11,000,000

(Crash data: 2007-2016, Sleepy Hollow - Hastings-on-Hudson. Via NYSDOT ALIS)
(Average crash costs: National Safety Council, 2012)

Externalities

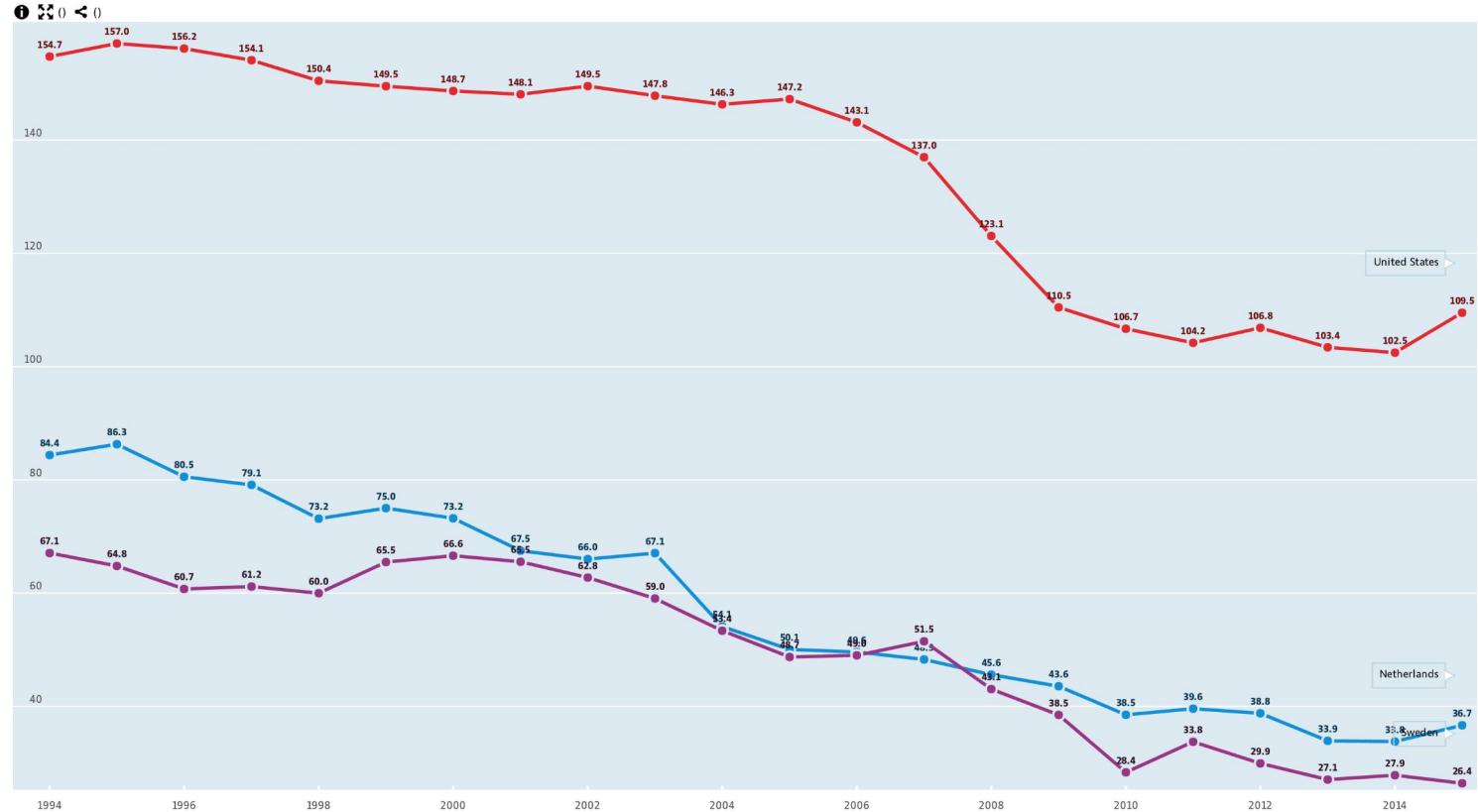
	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Unintentional Suffocation 1,023	Unintentional Drowning 425	Unintentional MV Traffic 384	Unintentional MV Traffic 455	Unintentional MV Traffic 7,037	Unintentional Poisoning 14,631	Unintentional Poisoning 13,278	Unintentional Poisoning 13,439	Unintentional Poisoning 9,438	Unintentional Fall 29,668	Unintentional Poisoning [drug overdose] 58,335
2	Homicide Unspecified 132	Unintentional MV Traffic 334	Unintentional Drowning 147	Suicide Suffocation 247	Unintentional Poisoning 4,997	Unintentional MV Traffic 7,010	Unintentional MV Traffic 5,075	Unintentional MV Traffic 5,536	Unintentional MV Traffic 5,397	Unintentional MV Traffic 7,429	Unintentional MV Traffic 38,748
3	Unintentional MV Traffic 88	Unintentional Suffocation 118	Unintentional Fire/burn 78	Suicide Firearm 160	Homicide Firearm 4,553	Homicide Firearm 4,510	Suicide Firearm 3,099	Suicide Firearm 3,873	Suicide Firearm 4,067	Suicide Firearm 5,756	Unintentional Fall 34,673
4	Homicide Other Spec., classifiable 63	Homicide Unspecified 114	Homicide Firearm 68	Unintentional Drowning 103	Suicide Firearm 2,683	Suicide Firearm 3,298	Homicide Firearm 2,555	Suicide Suffocation 2,112	Unintentional Fall 2,679	Unintentional Unspecified 5,021	Suicide Firearm 22,938
5	Undetermined Suffocation 60	Unintentional Fire/burn 107	Unintentional Suffocation 35	Homicide Firearm 95	Suicide Suffocation 2,100	Suicide Suffocation 2,643	Suicide Suffocation 2,199	Suicide Poisoning 1,736	Suicide Poisoning 1,538	Unintentional Suffocation 3,631	Homicide Firearm 14,415
6	Undetermined Unspecified 38	Unintentional Pedestrian, Other 82	Unintentional Other Land Transport 24	Unintentional Other Land Transport 64	Unintentional Drowning 530	Undetermined Poisoning 855	Suicide Poisoning 1,144	Homicide Firearm 1,420	Suicide Suffocation 1,474	Unintentional Poisoning 2,458	Suicide Suffocation 11,642
7	Unintentional Drowning 38	Homicide Firearm 64	Unintentional Pedestrian, Other 18	Unintentional Fire/burn 52	Suicide Poisoning 426	Suicide Poisoning 767	Undetermined Poisoning 788	Unintentional Fall 1,238	Unintentional Suffocation 792	Adverse Effects 2,028	Suicide Poisoning 6,698

(Leading Causes of Injury Death, United States, 2016. Source: WISQARS by the CDC)

Externalities

Road accidents ([//data.oecd.org/transport/road-accidents.htm](http://data.oecd.org/transport/road-accidents.htm))

Deaths, Per 1 000 000 inhabitants, 1994 - 2015

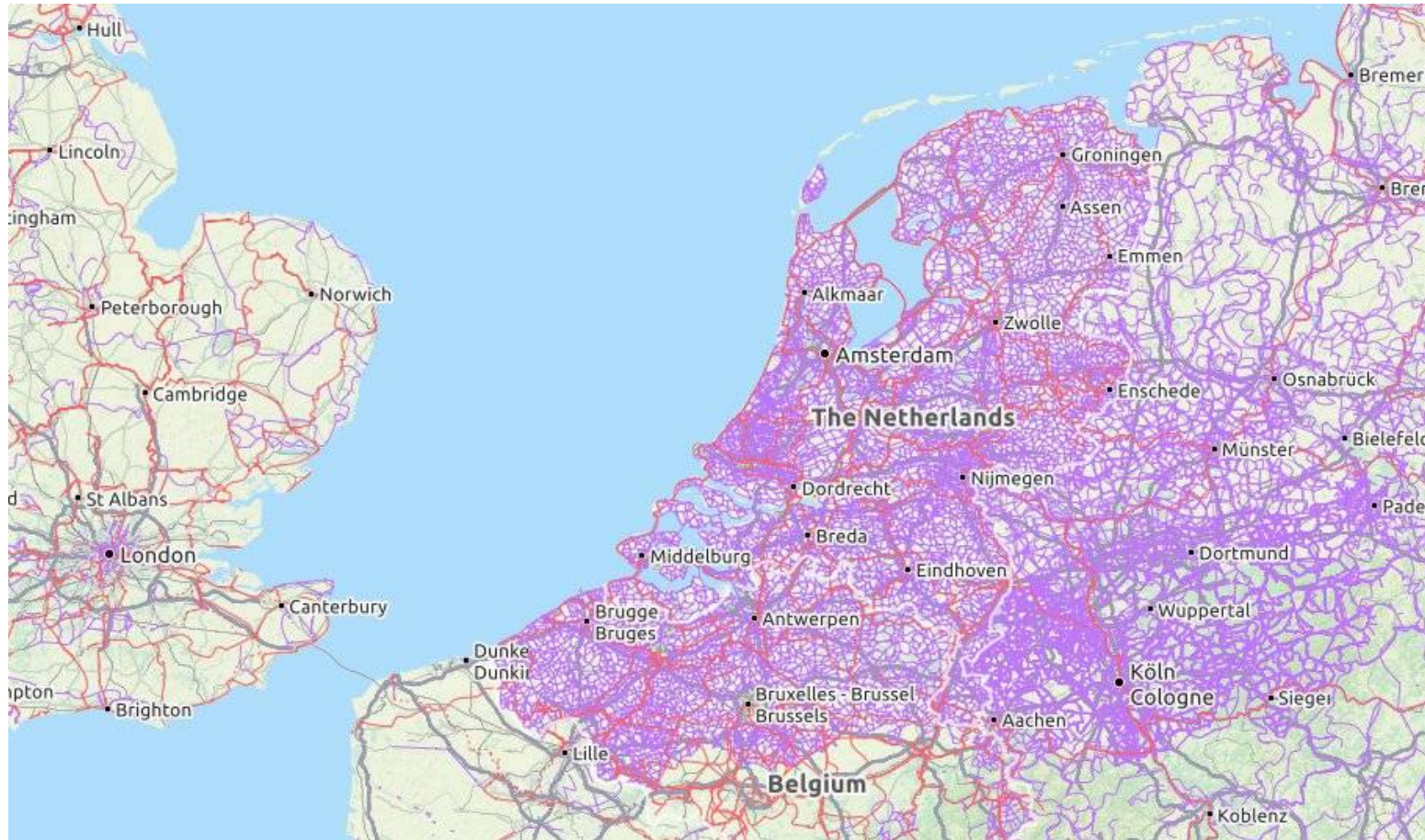


What
Would
Netherlands
Do?

What Would Netherlands Do?



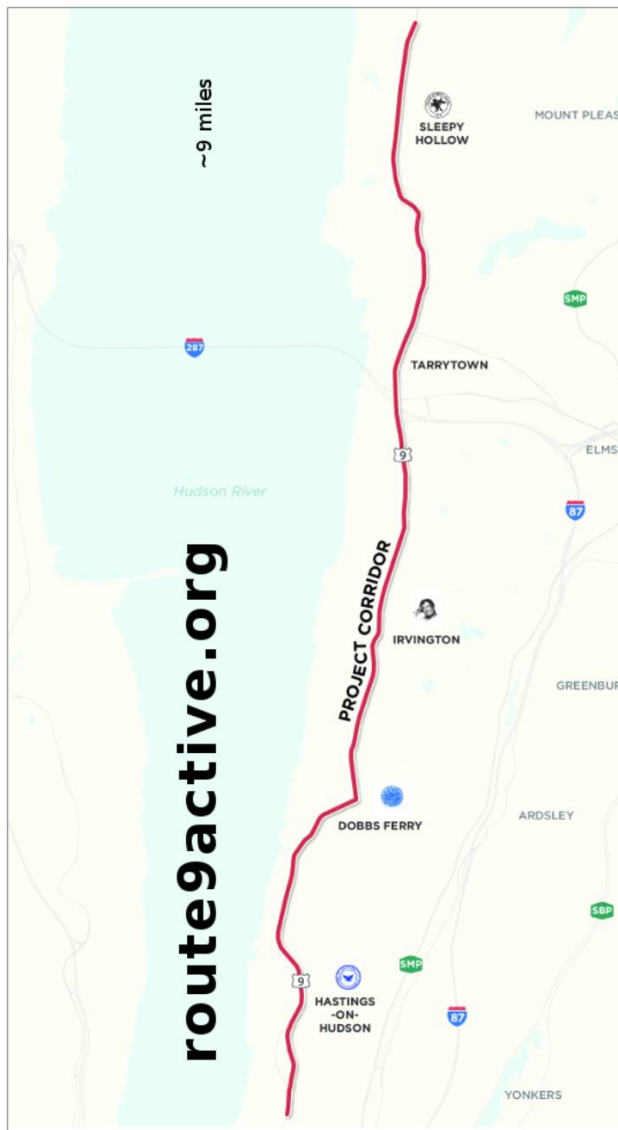
What Would Netherlands Do?



The Plan

The Plan

- Conceived 3 years ago by residents
- Sleepy Hollow - Hastings
- Make Rt. 9 safe to walk/bike on/across
- Steering Committee: 3 / village
- Grant from New NY Bridge (\$150k)
- Hired consultant (Nelson\Nygaard)
- 4 meetings for public input
- 2 public surveys
- Final report released November 2018

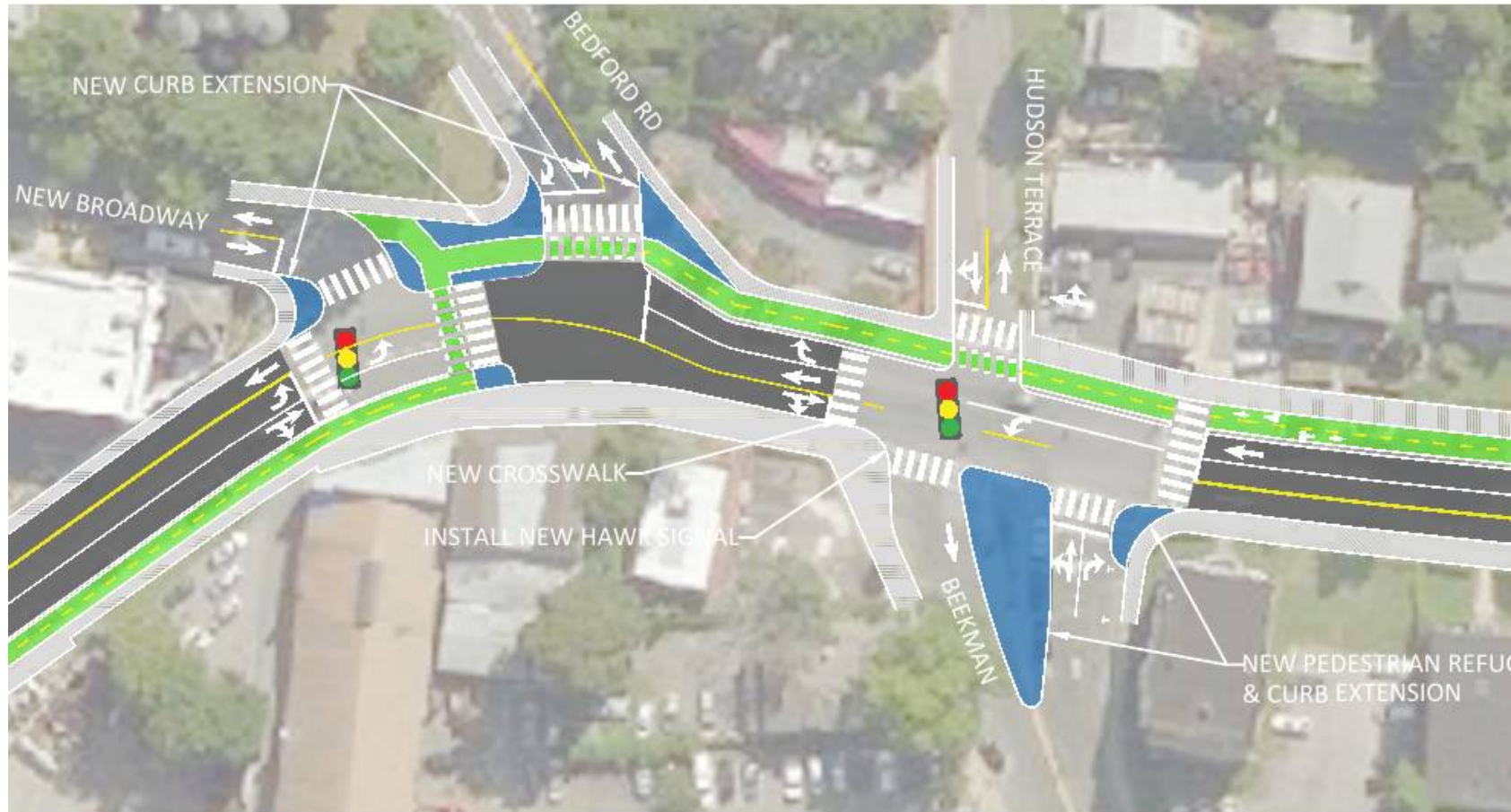


Hastings-on-Hudson Broadway / Main St / Farragut Ave

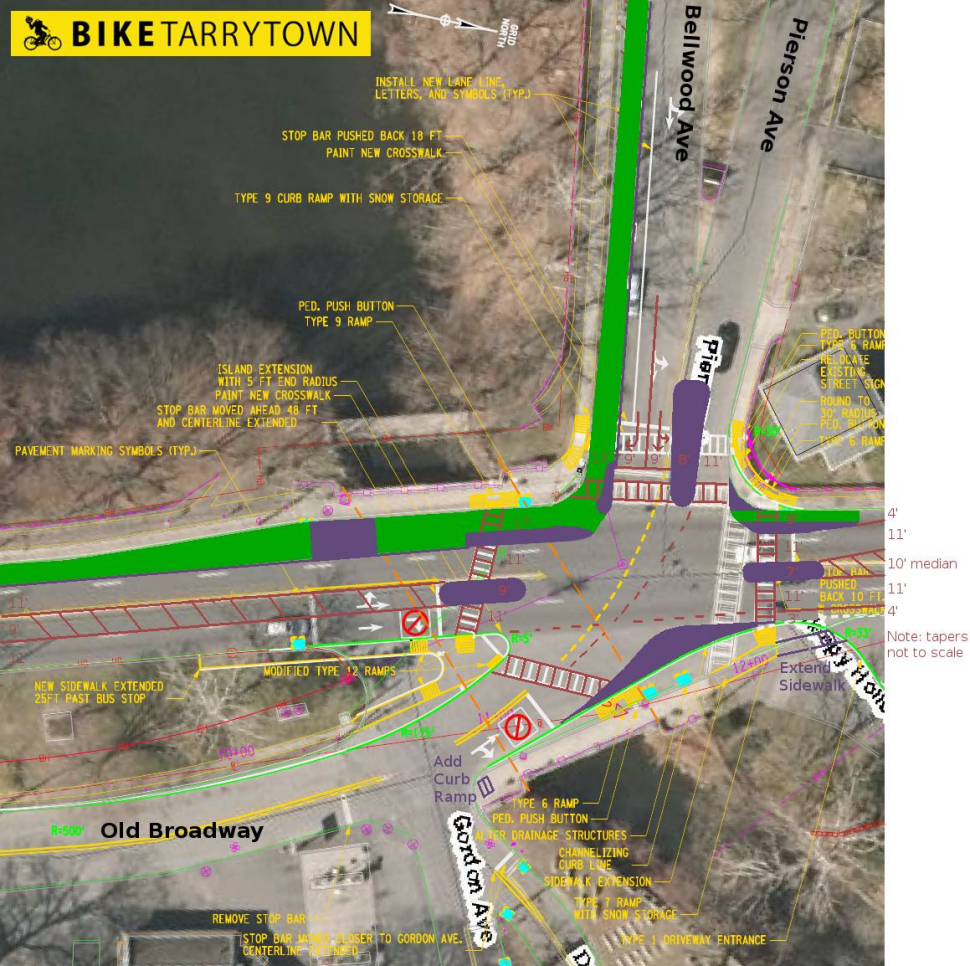


This proposal is part of what was developed by the community via the Route 9 Active Transportation Conceptual Design Plan

Sleepy Hollow Broadway / Beekman Ave / Bedford Rd



This proposal is part of what was developed by the community via the Route 9 Active Transportation Conceptual Design Plan



North Broadway (US Rt 9) at Pierson Ave, Sleepy Hollow, NY

YELLOW LETTERING = PROPOSALS BY NEW YORK STATE DEPARTMENT OF TRANSPORTATION, 4/26/17
 PROPOSALS, BELOW, BY BIKE TARRYTOWN, 10/23/18
 MAROON = NEW PAINT: ONE VEHICLE LANE EACH DIRECTION.
 (CAPACITY IS ~25,000/DAY. CURRENT PEAK VOLUME IS 15-20,000/DAY DURING HALLOWEEN.)
 PURPLE = NEW CURB EXTENSIONS / REFUGES: REDUCES SPEEDING, SHRINKS DANGER ZONES FOR WALKERS
 GREEN = NEW PROTECTED 2-WAY BICYCLE LANE: SAFE SPACE FOR PEOPLE OF ALL AGES & ABILITIES TO RIDE

Sleepy Hollow Broadway / Pierson Ave / Gordon Ave



This proposal is part of what was developed by the community via the Route 9 Active Transportation Conceptual Design Plan [Note: needs refinement to add turn pocket & ensure safe speeds]

Study's Steering Committee Recommendations for the Route 9 Active Transportation Plan (Tarrytown, south)

Aqueduct to Sleepy Hollow, Scarborough, Ossining, Croton (10 mi)

OCA connection at Franklin St

Proposed protected bike lane to Irvington, Dobbs Ferry, Hastings on Hudson

Pennybridge Residents

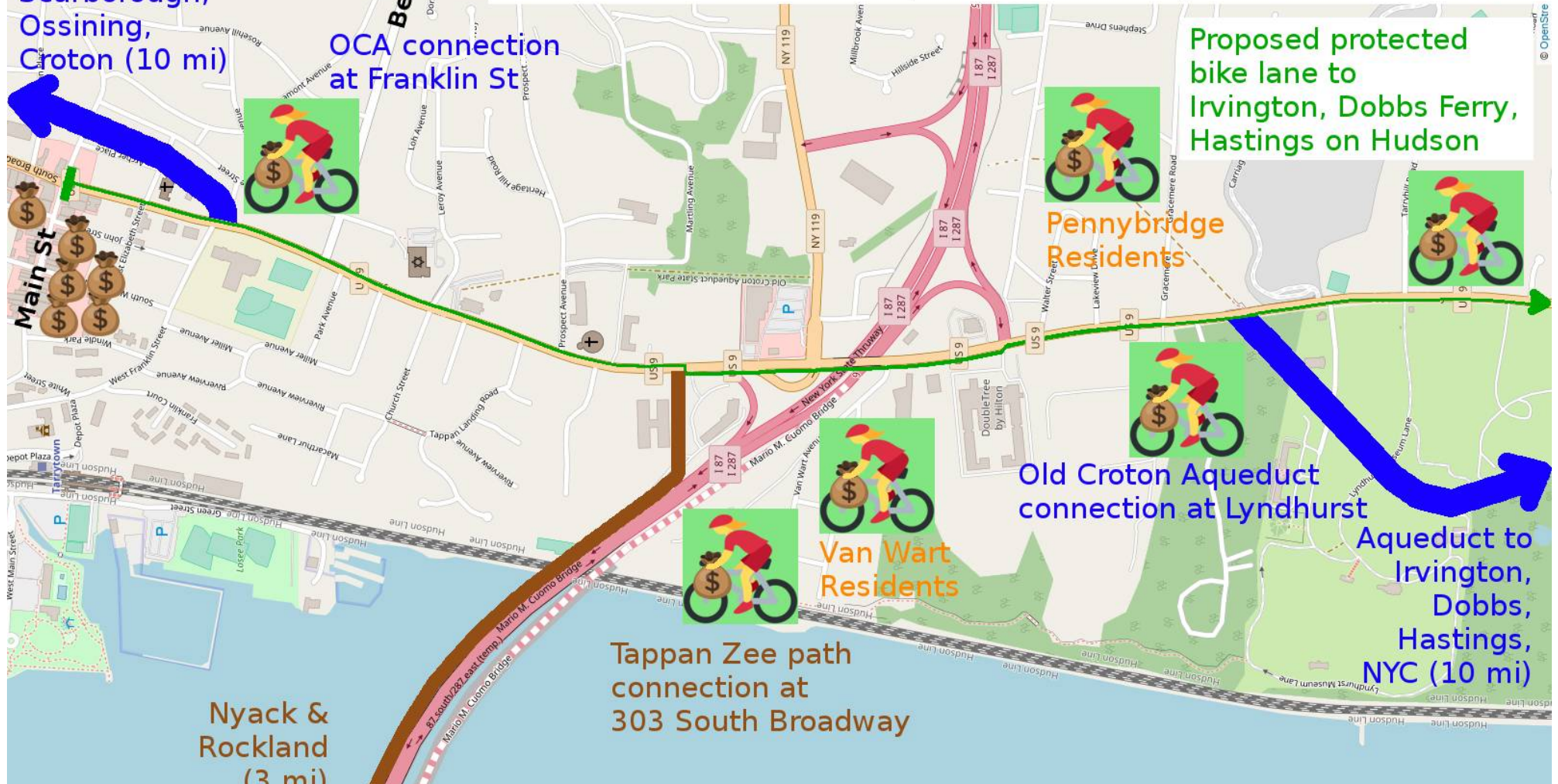
Old Croton Aqueduct connection at Lyndhurst

Van Wart Residents

Tappan Zee path connection at 303 South Broadway

Nyack & Rockland (3 mi)

Aqueduct to Irvington, Dobbs, Hastings, NYC (10 mi)



Aqueduct to Sleepy Hollow, Scarborough, Ossining, Croton (10 mi)

OCA connection at Franklin St

Study's Steering Committee Recommendations for the Route 9 Active Transportation Plan (Tarrytown, south)

Proposed protected bike lane to Irvington, Dobbs Ferry, Hastings on Hudson

Creates a 20 mile trail out of two 10 mile trails!

A compromise plan with tremendous benefits (economic, health, environment)

Old Croton Aqueduct connection at Lyndhurst
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Aqueduct to Sleepy Hollow, Scarborough, Ossining, Croton (10 mi)



Tarrytown's Changes

to the Route 9 Active Transportation Plan (Tarrytown, south)

Ends protected bike lane at Benedict Ave -- missing OCA link



Proposed protected bike lane to Irvington, Dobbs Ferry, Hastings on Hudson



Pennybridge Residents



No compromises by people driving.

Narrower lanes.

Merchants lose benefits.



People riding north from OCA have to cross Broadway 2x in 300'. Dangerous, waste of time.

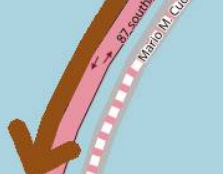
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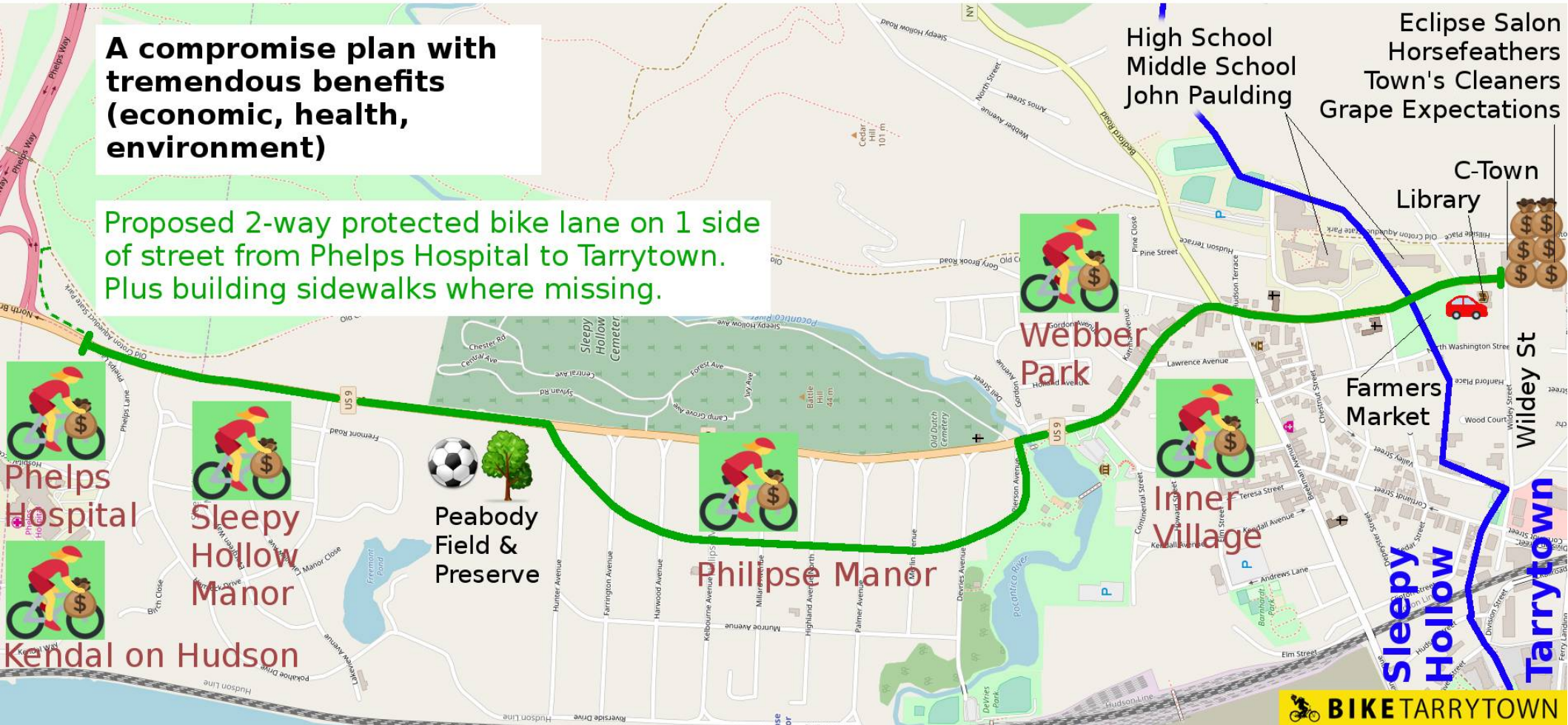


Study's Steering Committee Recommendations

for the Route 9 Active Transportation Plan (Tarrytown, north & Sleepy Hollow)

A compromise plan with tremendous benefits (economic, health, environment)

Proposed 2-way protected bike lane on 1 side of street from Phelps Hospital to Tarrytown. Plus building sidewalks where missing.



Tarrytown's Changes

to the Route 9 Active Transportation Plan (Tarrytown, north & Sleepy Hollow)

No compromise by people driving

Merchants lose benefits

Proposed 2-way protected bike lane on 1 side of street from Phelps Hospital to Tarrytown. Plus building sidewalks where missing.

Ends protected bike lane at Patriots Park driveway -- missing Library, C-Town, etc

High School
Middle School
John Paulding

Eclipse Salon
Horsefeathers
Town's Cleaners
Grape Expectations

C-Town
Library

Farmers
Market



**Peabody
Field &
Preserve**

**Sleepy
Hollow**

Tarrytown

People who bike aren't a fixed number of constituents to be placated



We are an untapped resource to be cultivated