VISION ZERO
CITY OF PHILADELPHIA

# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

## Working Group Feedback: Highlights

| What we heard | How we're responding |
|---|---|
| This project should include dynamic speed feedback "speed minder" signs. | The team is currently looking at where it is possible to place these signs as part of this project. |
| This project should improve access to transit. | The City submitted a request for grant funding for concrete bus boarding islands, which would provide improved waiting space for transit riders. |
| Emergency response vehicles need to travel fast on Washington Avenue. | The Fire Department approved all options developed by the City. The City is pursuing funding for signal preemption for the corridor. |
| There will be speeding behaviors on parallel streets and perpendicular side streets. | The City is currently evaluating the possibility of installing speed cushions on nearby streets when requested by the residents. |
| People run red lights on Washington. | The City is requesting study of automated red light cameras from the PPA. |

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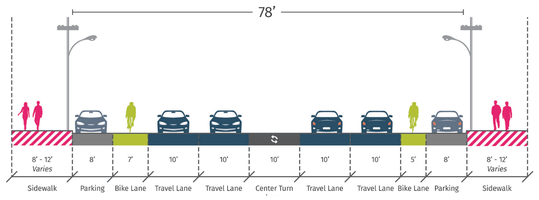
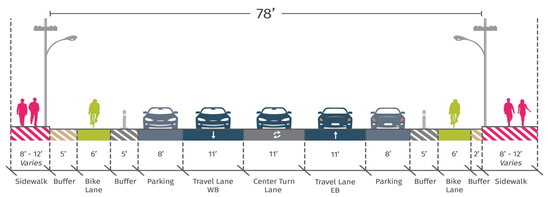
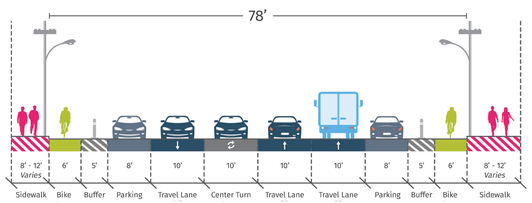
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | SAFETY (ALL MODES) |
|---|---|
| EXISTING CONDITIONS   | ✔ Emergency responders have room to move around obstructions<br>✔ Washington Avenue currently experiences higher than average crashes leading to injuries or death<br>✔ Lack of right turn lanes encourages swerving to avoid slowing<br>✔ Driver weaving contributes to rear-end, sideswipe, left turn, and angle crashes<br>✔ Vehicles turning from side streets can turn into either of 2 lanes, which creates additional conflict points and can increase the speed and unpredictability of turning maneuvers |
| MAXIMIZES **3-LANE**   | ✔ Achieves largest reduction in conflict points between vehicles<br>✔ Adds right turn lanes at 2 locations, reducing swerving<br>✔ Limits weaving behavior in both directions<br>✔ Tighter turns at intersections and driveways reduce vehicle speed<br>✔ Expected to reduce speeding, which leads to a decrease in fatal and serious injury crashes, even when crashes occur<br>✔ Expected to result in reduced crashes and reduced crash severity<br>✔ Wider 11' lanes are easier for emergency responders<br>✔ If vehicles illegally park in no stopping zones, they may contribute to bicycle crashes by restricting the clear sight distance<br>✔ If vehicles illegally park in center turn lane, emergency responders will have less room to maneuver |
| MAXIMIZES **4-LANE**   | ✔ Achieves reduction in conflict points, but not as much as 3-lane section<br>✔ Tighter turning radii at intersections and driveways reduces turning speed<br>✔ Expected to reduce speeding, but not as much as 3-lane section<br>✔ Expected to reduce crashes needing emergency response, but not as much as 3-lane section<br>✔ Limits weaving behavior, but only in one direction<br>✔ Does not reduce turning movement conflict points as much as the 3-lane option<br>✔ If vehicles illegally park in no stopping zones, they may contribute to bicycle crashes by restricting the clear sight distance |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | Combination of 3-lane and 4-lane |

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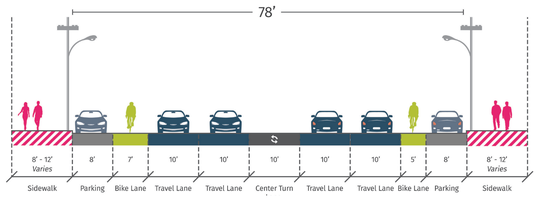
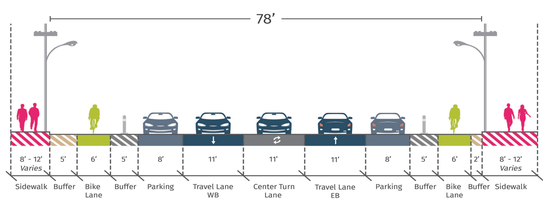
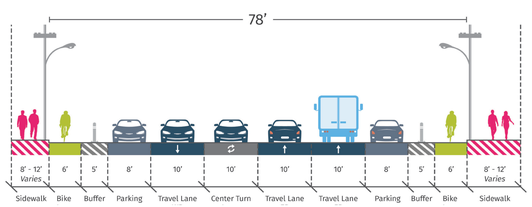
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | BUSINESSES |
|---|---|
| EXISTING CONDITIONS   | ✔ Since parking is not regulated or timed, businesses can use public parking spaces for operations and employee parking<br>✔ High volume of cars pass by daily<br>✔ High speeds and chaotic environment may reduce drivers' awareness of surrounding businesses<br>✔ Lower parking turnover means less parking access for customers<br>✔ Not enough loading spaces<br>✔ Existing illegal loading activity in the travel lane and in the center median gives businesses flexibility for both time of day and size of vehicle, but create more dangerous conditions<br>✔ Current loading operations are dangerous for employees and drivers |
| MAXIMIZES **3-LANE**   | ✔ Extra wide buffer space between bike lane and parking allows for businesses to stage goods up to 5' wide for unloading/ loading. A pallet is approximately 4' wide<br>✔ Slower and more consistent speeds allow drivers to be more aware of surrounding land uses and businesses<br>✔ Easier and safer walking and bike access to businesses along Washington Avenue<br>✔ Loading/unloading in the single active travel lane would block traffic<br>✔ Reduction in overall loading flexibility over existing operations<br>✔ Enforcement would be needed to ensure loading zones are available for loading demands |
| MAXIMIZES **4-LANE**   | ✔ Without increased enforcement businesses would still be able to load/unload in outside travel lane of the direction with two lanes, as they do today – this may be considered positive by businesses who want to continue operations as is<br>✔ Easier and safer walking and bike access to businesses along Washington Avenue than the existing conditions, but not as easy and safe as the 3-lane section<br>✔ Similar to the existing condition, high speeds and aggressive driving conditions in the 2-lane direction may limit drivers' awareness of nearby businesses<br>✔ East of Broad, the space between bike lane and parking would only be 3' wide, which does not provide room for a 4' wide pallet |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | Combination of 3-lane and 4-lane |

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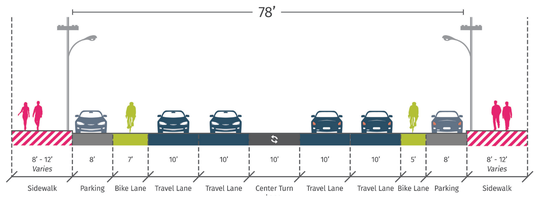
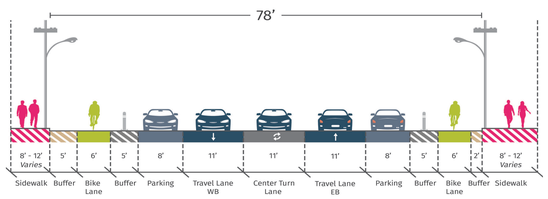
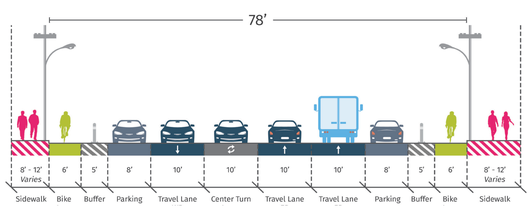
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | PEOPLE WALKING |
|---|---|
| EXISTING CONDITIONS   | ✔ Pedestrians need to cross 50' of active motorized vehicle travel space in about 15 seconds<br>✔ Current sidewalks are narrow, and in some places, signs or poles may impede pedestrian access and violate ADA accessibility |
| MAXIMIZES **3-LANE**   | ✔ Reduces the distance that pedestrians need to cross at intersections (from 5 lanes to 3 lanes / 50' to 33' of active vehicular travel space)<br>✔ Slows turning movements, helping to prevent the kinds of pedestrian crashes that are typical on Washington Avenue today<br>✔ Option provides space for possible future sidewalk expansion (west of Broad Street)<br>✔ 90 second cycles at peak hour would mean greater pedestrian wait times to cross Washington Avenue (as compared to existing 60-second cycle) |
| MAXIMIZES **4-LANE**   | ✔ Reduces the distance that pedestrians need to cross at intersections (from 5 lanes to 4 lanes / 50' to 40' of active vehicular travel space), but not as much as 3-lane section<br>✔ Slows turning movements, helping to prevent the kinds of pedestrian crashes that are typical on Washington Avenue today, but not as much as 3-lane section<br>✔ Does not create shorter crossing distance at bus stop mixing zones<br>✔ Does not provide space to widen sidewalks in future<br>✔ 90 second cycles at peak hour would mean greater pedestrian wait times to cross Washington Avenue (as compared to existing 60-second cycle) |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | Combination of 3-lane and 4-lane |

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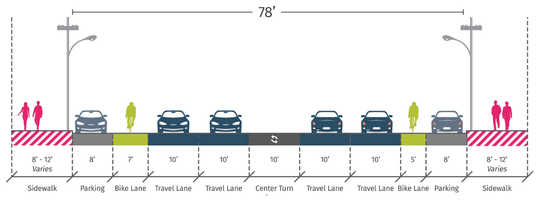
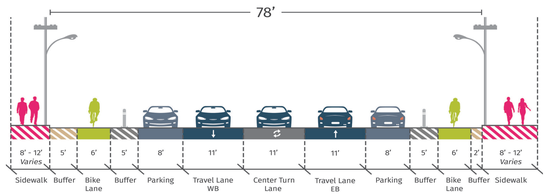
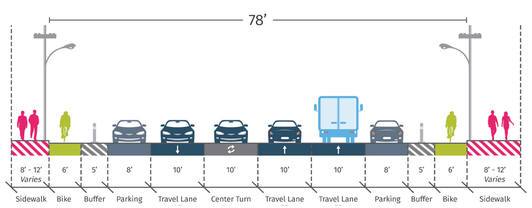
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | PEOPLE USING TRANSIT |
|---|---|
| EXISTING CONDITIONS<br>  | ✔ Multiple lanes provide options for buses to move around obstructions<br>✔ Double-parked vehicles in the outer lane push buses away from the curb, forcing bus riders to cross an active vehicle lane<br>✔ Motorists make illegal right turns in front of buses<br>✔ Many bus stops do not meet SEPTA's Bus Stop Design Guidance |
| MAXIMIZES **3-LANE**<br>  | ✔ Wider 11' lanes are easier for bus drivers<br>✔ Provides "floating bus stops" at 30 locations, giving a larger area for riders to wait and eliminate the need for riders to cross active vehicle lanes to get around double parked vehicles<br>✔ Bus drivers do not have to move to the curb in most instances, which reduces merging and aggressive driving of vehicles attempting to pass buses in travel lane |
| MAXIMIZES **4-LANE**<br>  | ✔ Allows drivers to pass stopped buses in the two-lane direction<br>✔ Provides "floating bus stops" at 13 locations (compared to 30 with the 3-lane option) |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | ✔ Provides "floating bus stops" at up to 24 locations (compared to 30 with the 3-lane option and 13 with the 4-lane option) |

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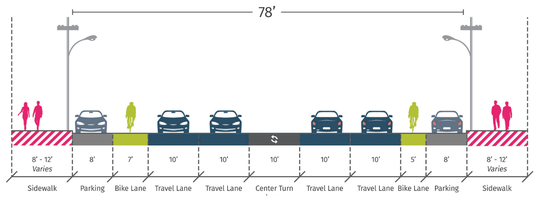
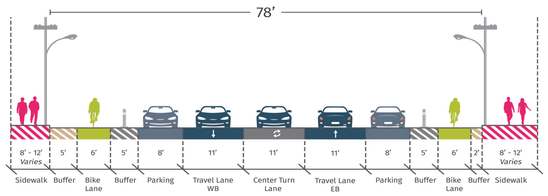
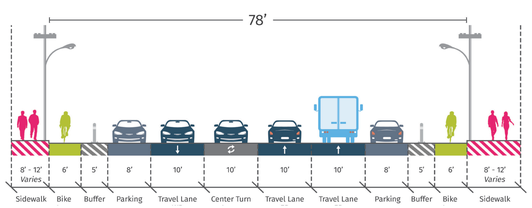
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | PEOPLE BIKING |
|---|---|
| EXISTING CONDITIONS   | ✔ There are bike lanes on some blocks<br>✔ Existing bike lanes are not protected, which does not follow state and federal guidance. Based on the volume of vehicles and posted speed limit of Washington Ave., a protected bike lane is recommended.<br>✔ Existing bike lanes are also next to parked cars, increasing the risk of dooring or bikes swerving into traffic<br>✔ Existing bike lanes are often blocked by double-parked vehicles, causing people on bicycles to either ride on the sidewalk (bad for pedestrians) or ride with cars (bad for people driving and people on bikes)<br>✔ Some portions of the corridor have no bike lanes (7th St. - 11th St. & 4th St. - Front St. (eastbound))<br>✔ Some portions of the corridor have no bike lanes (7th St. - 11th St. & 4th St. - Front St. (eastbound)) |
| MAXIMIZES **3-LANE**   | ✔ Layout with most blocks of 3-lane section provides 18 blocks of protected bike lane and only 9 locations of bus/bike mixing zones |
| MAXIMIZES **4-LANE**   | ✔ Provides 16 blocks of protected bike lane (better than existing conditions, but fewer than 3-lane layout)<br>✔ Has 26 locations of bus/bike mixing zones, the most out of the future options |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | Combination of 3-lane and 4-lane |

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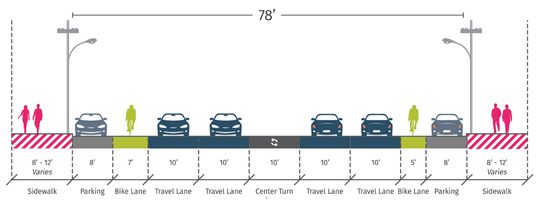
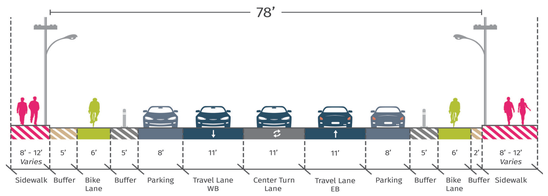
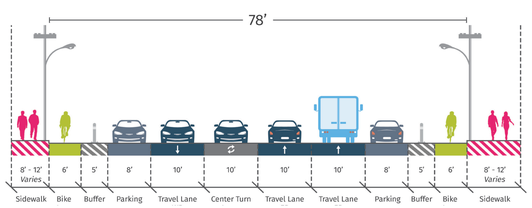
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | PEOPLE DRIVING/TRAVEL TIME |
|---|---|
| EXISTING CONDITIONS   | ✔ Multiple lanes provide room to move around obstructions<br>✔ Layout is consistent across the corridor with no lane transitions<br>✔ Lack of parking limits allows nearby residents and business employees to park for long periods of time<br>✔ 10' lanes may contribute to sideswipe crashes involving trucks<br>✔ Lack of parking limits means some spaces are used for storage instead of active parking |
| MAXIMIZES **3-LANE**   | ✔ Wider 11' lanes may provide a more comfortable driving experience, especially for larger vehicles<br>✔ Slower speeds and fewer lanes may provide less stressful experience for drivers<br>✔ Drivers behind a bus will not have the opportunity to legally pass the bus for several blocks<br>✔ Slight travel time increase at rush hour is expected<br>✔ Larger trucks will need to make wider turns to navigate some intersections |
| MAXIMIZES **4-LANE**   | ✔ Has 2 fewer lane transitions than 3-lane option<br>✔ Allows drivers to pass double-parked/stopped vehicles in the two-lane direction<br>✔ 10' lanes are more likely to reduce speeding than 11' lanes<br>✔ Slight travel time increase at peak hour is expected<br>✔ 10' lanes may contribute to trucks encroaching on vehicle lane. This means less maneuvering room for vehicles.<br>✔ Parking loss is slightly greater than the other alternatives due to additional space needed for mixing zones at each intersection |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | Combination of 3-lane and 4-lane |

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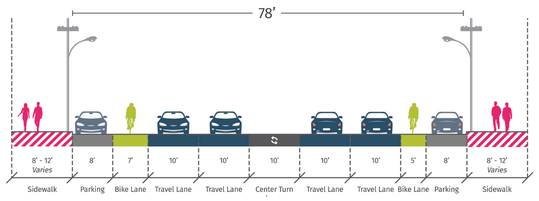
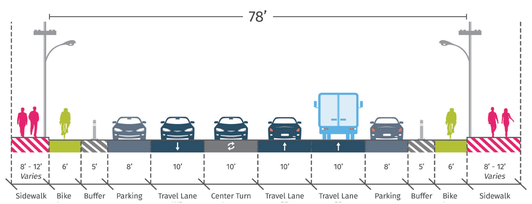
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# EVALUATION CRITERIA

| | TRAFFIC DIVERSION (spillover to other streets) |
|---|---|
| EXISTING CONDITIONS   | ✔ Current traffic stays on Washington Avenue with no impact on side streets |
| MAXIMIZES **3-LANE**   | ✔ Based on traffic model, parallel route intersections have enough roadway capacity to handle increases from traffic diverting off Washington Ave. and still operate below capacity<br>✔ Diverted traffic (80-90 cars at rush hour in each direction) could be shifted to 80-90 people taking transit/walking/biking<br>✔ Assumes a 10% reduction in vehicles on Washington Ave. at rush hour. This means 80-90 cars in each direction may divert to other streets.<br>✔ Residential blocks near Washington Ave. may experience additional vehicles during rush hour (80-90 cars in each direction)<br>✔ The intersection at Grays Ferry Avenue & Christian Street / S. 25th Street experiences the greatest increase in delay (8.6 seconds) during the weekday PM rush hour |
| MAXIMIZES **4-LANE**   | ✔ Intersections on Washington Ave. continue to operate at an acceptable level without assuming diversion of traffic |
| **MIXED** CORRIDOR OF 3-LANE AND 4-LANE | ✔ Diverted traffic (40-45 cars at rush hour in each direction) could be shifted to 40-45 people taking transit/walking/biking<br>✔ Assumes a 5% reduction in vehicles on Washington Ave. at rush hour. This means between 40-45 cars in each direction may divert to other streets. |

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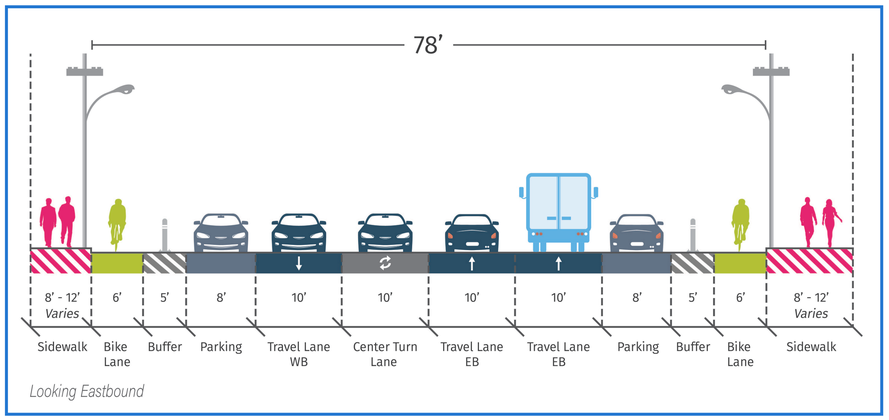
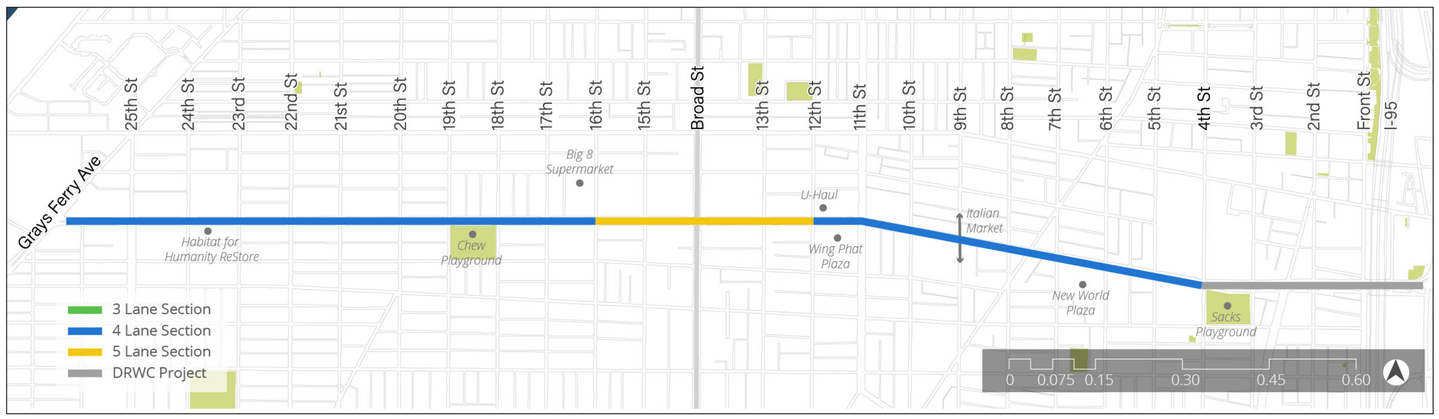
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

# WHY CHOOSE AN OPTION THAT "MAXIMIZES 4-LANE"




## Arguments "against"

- Does not maximize reduction in weaving behaviors
- Could lead to increased speeding
- Only provides safe "floating bus stops" in 13 places
- Not enough of change from existing*

## Arguments "for"

- Intersections on Washington Ave. continue to operate at an acceptable level even without a reduction in vehicles
- Provides significant safety benefits comparted to today's conditions
- Reduces effective pedestrian crossing distance to 40'
- Does not rely as much on increased enforcement for parking and loading zones
- Provides protected bike lanes along 16 blocks (same as Mixed Option)
- Only one direction of traffic may become blocked by a bus (compared to both directions with Mixed Option)
- Closer to familiar*
- Without increased enforcement businesses would still be able to load/unload in one direction with two lanes, as they do today*

** We understand that this may be an argument "for" or "against", depending on an individual's point of view.*

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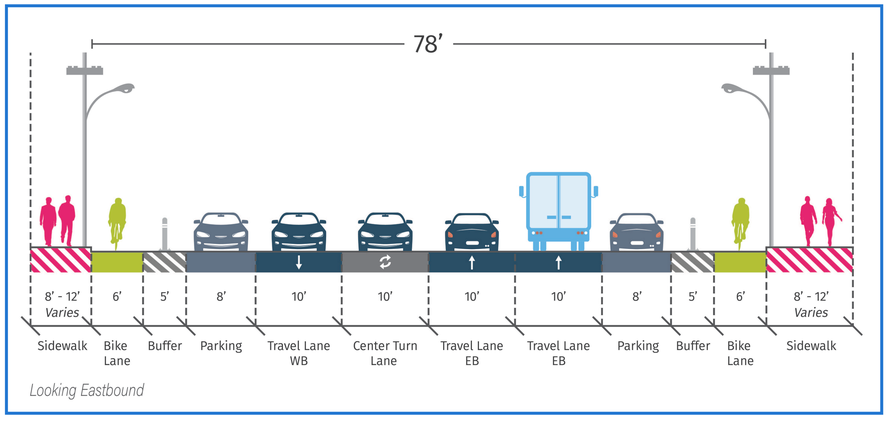
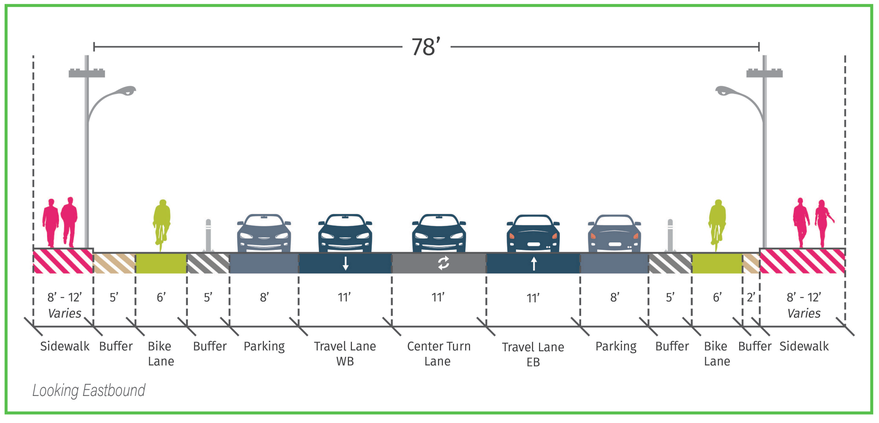
# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

## WHY CHOOSE A “MIXED LAYOUT” OPTION








## Arguments “for”

- Safer than the 4-lane option
- Achieves some of the benefits of the 3-lane layout and 4-lane layout
- Assumes minimal (5%) of vehicles use different streets or take transit/walk/bike at rush hour
- Provides safe “floating bus stops” up to 24 locations
- Reduces effective pedestrian crossing distance to 33’ and 40’
- More consistent with majority of community input than 4-lane

## Arguments “against”

- More shifts (2) in layout between blocks than 4-lane layout
- Businesses must make more adjustments to loading operations than 4-lane layout
- More enforcement required to ensure parking and loading functions as intended

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# WASHINGTON AVENUE
## REPAVING AND IMPROVEMENT PROJECT

## HOW CAN WE IMPROVE PARKING AND LOADING?

### Parking

**Observed:**
**7+ hour** average duration west of Broad
**8+ hour** average duration east of Broad

**Goal:**
**2-3 hour** duration on a commercial corridor
Time limited parking during the day
Residents would have ability to park over night

### Loading

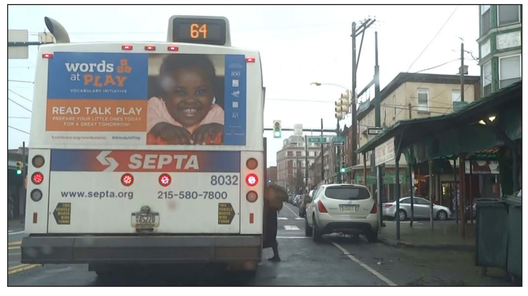
*Today, there are not enough loading spaces for businesses to get deliveries. Double parking is dangerous and blocks traffic.*

We have had ongoing discussions including **16 in person meetings in Nov. 2021 - Feb. 2022**

Previous to 2020, we identified **167 active businesses,** visited each at least once

We got **responses from about 80%** of businesses prior to 2022

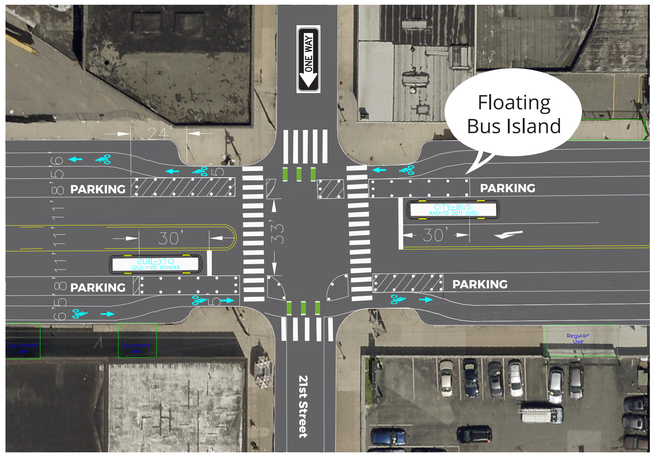
## HOW WILL THE SEPTA 64 BUS STOP PICK UP AND DROP OFF RIDERS?




Today, the SEPTA 64 sometimes picks up passengers in the middle of the street.

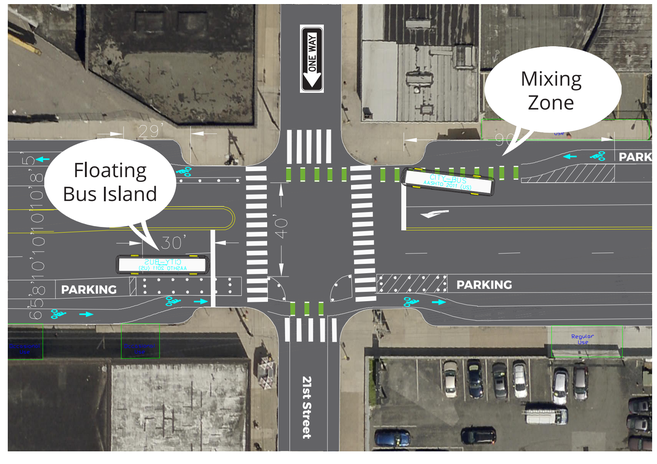
A floating bus island would allow passengers to safely get on and off the bus. It gives people riding the bus their own space and people riding the bus their own space.

### Example Intersection Mixed (3 Lane)




*The Mixed Option would allow bus boarding islands at up to 24 of the Route 64 stops. The graphic above shows what that could look like on those blocks with 3-lane layout.*

### Example Intersection 4 Lane




*The 4 Lane Option would allow bus boarding islands at 13 of Route 64 stops. The graphic above shows what that could look like on those blocks with 4-lane layout.*

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