

# Citywide Congested Corridors Project Church Avenue McDonald Avenue to Utica Avenue

November 10<sup>th</sup>, 2009

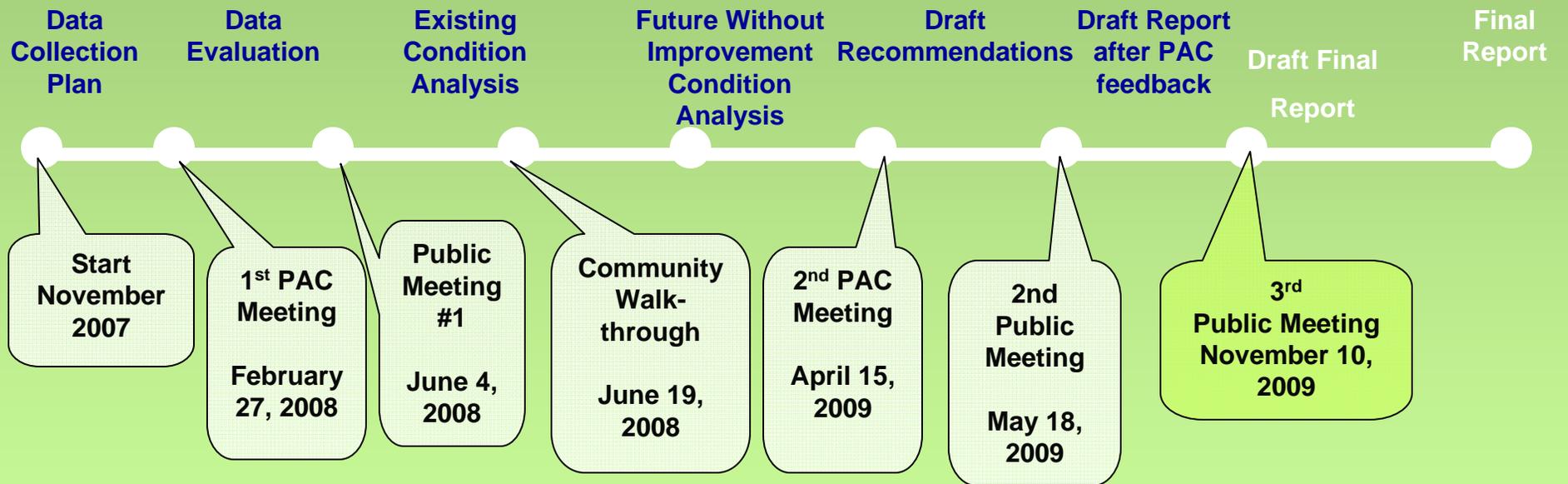


**GPI** Greenman-Pedersen, Inc.  
Engineering and Construction Services

# Study Goals and Objectives

- Reduce vehicular congestion and improve air quality, mobility and safety to enhance the quality of life for all users (vehicle, transit, pedestrians, bicyclists) who live, work and shop in the study area.
- Bring the various stakeholders together in identifying problems and building consensus on potential solutions.

# Project Status



# Areas of Assessment

- Traffic Analysis
- Land Use & Zoning
- Demographics
- Pedestrian
- Safety
- Transit
- Parking
- Goods Movement



# General Corridor Wide Improvement Measures

# Pedestrian Safety

- Upgrade markings
- Upgrade or repair pedestrian ramps
- Construct pedestrian refuge islands
- Increase bus stop length to eliminate bus queuing in crosswalks
- Relocate and install bus shelters and relocate bus stops to provide better access
- Install “Yield to Pedestrian” signs at various intersections
- Install Leading Pedestrian Intervals (LPI’s) some intersections



# Traffic Congestion

- Optimize traffic signal timing for smoother progression and coordination to improve operations and reduce aggressive behavior due to excessive delays
- Increase bus stop lengths to accommodate two buses simultaneously and minimize bus spillback into crosswalks and intersections



# Traffic Congestion

- Prohibit left turns from side streets
  - Ocean, Bedford and Utica Avenues
    - Improves traffic flow and reduces delays
    - Reduces congestion without removing parking spaces
    - Increases pedestrian safety by reducing vehicle conflict opportunities
    - Decreases potential of vehicular accidents

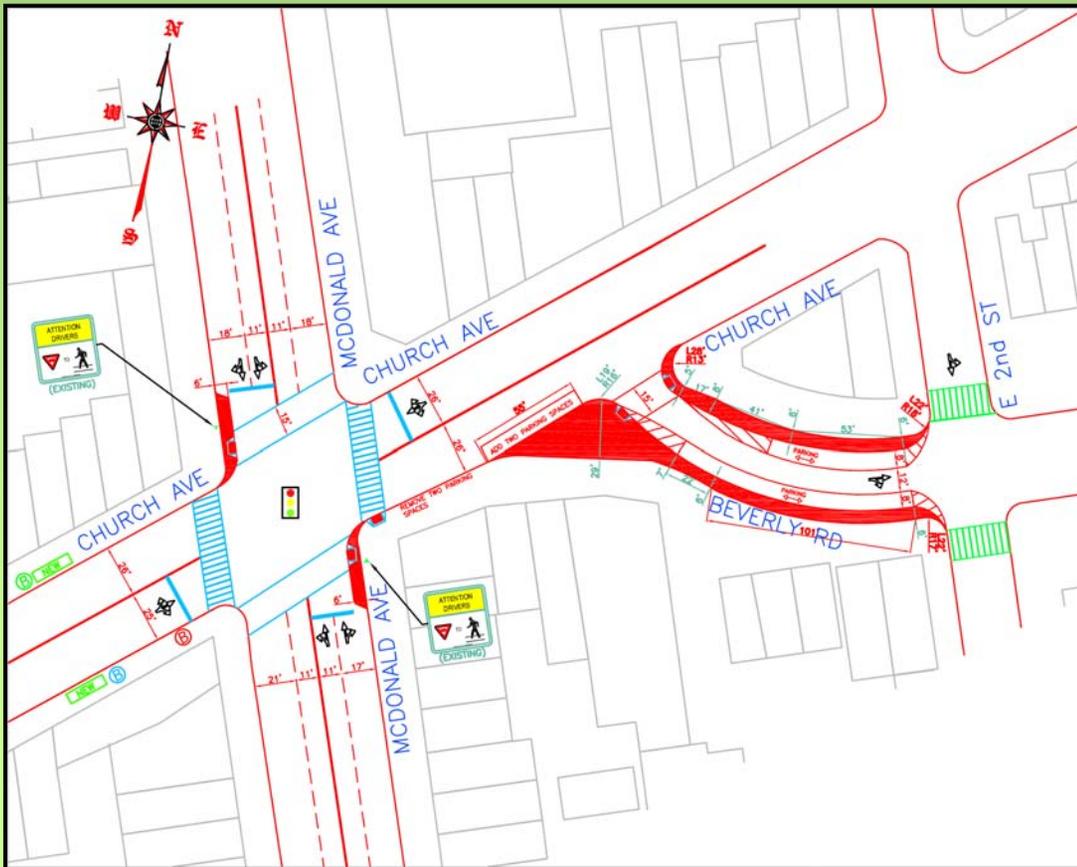
# Parking

- Initiate a ParkSmart pilot program to increase parking utilization
- Install muni-meters
- Identify delivery zone windows for commercial parking regulation
  - Church Avenue BID Example:
    - How many days a week are deliveries made?
    - How many deliveries are made in a day?
    - What time of day are deliveries made?
    - Where do trucks park while making deliveries?



# Site Specific Improvement Measures

# Church Avenue at McDonald Avenue & Beverly Road

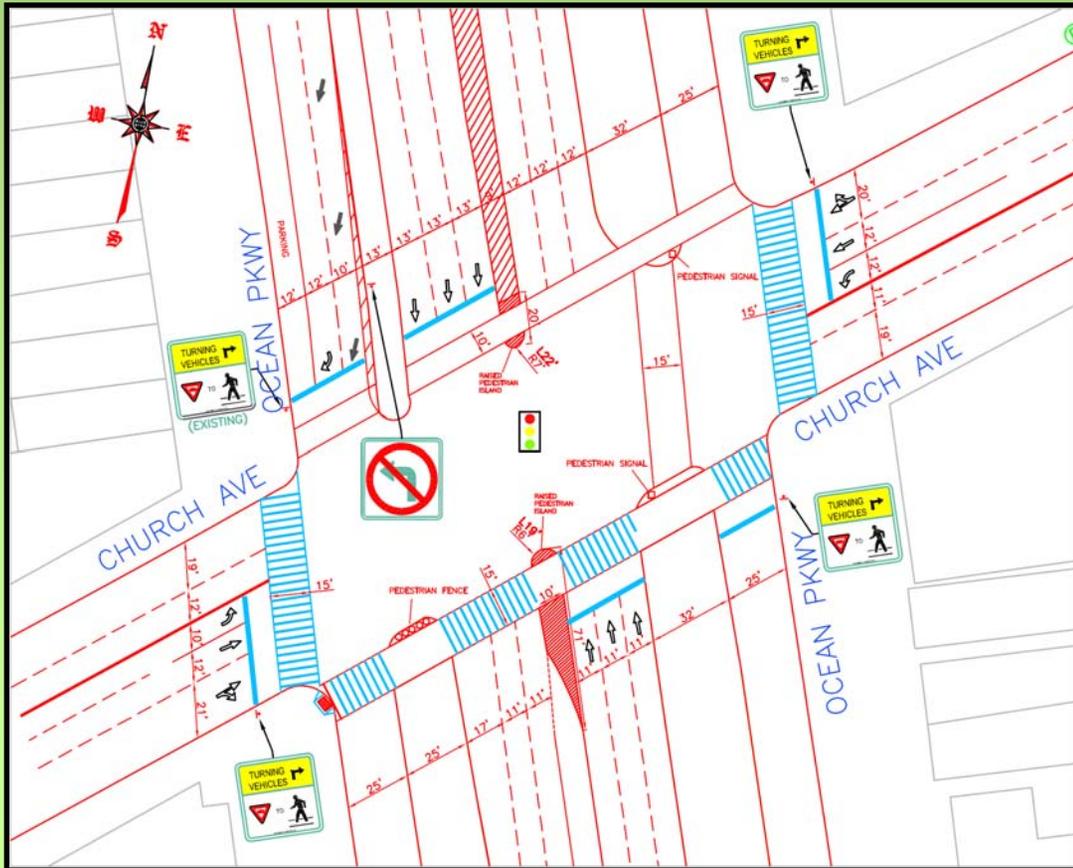


- Install new bus shelters on both sides of Church Avenue
- Install bulbouts and pedestrian ramps
- Narrow Beverly Road with wider sidewalks and bulbouts that normalize the intersection
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations



# Church Avenue at Ocean Parkway

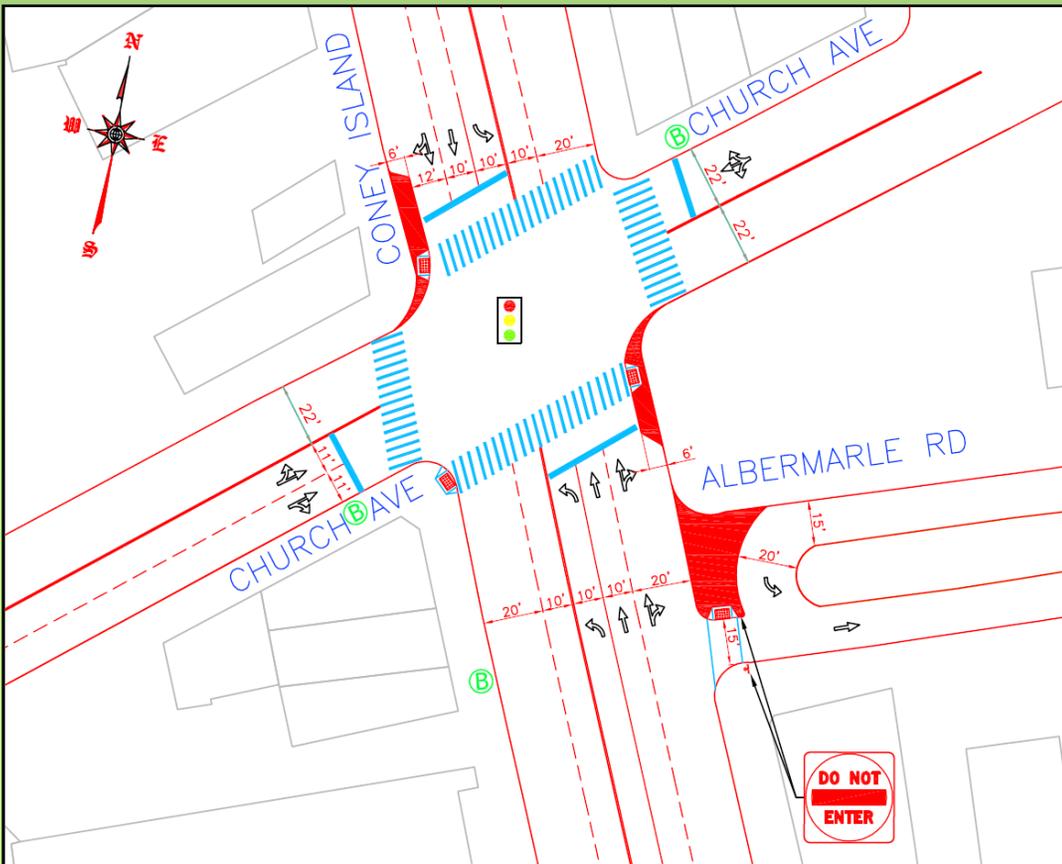
- Provide raised pedestrian refuge island and median extension
- Install pedestrian signals
- Install pavement markings to discourage illegal left turns from the southbound service road
- Upgrade No Turn signs on Northbound Ocean Parkway. Install No Left Turn sign on Southbound Service, add “Yield to Pedestrian” signs at all approaches
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing and offset changes





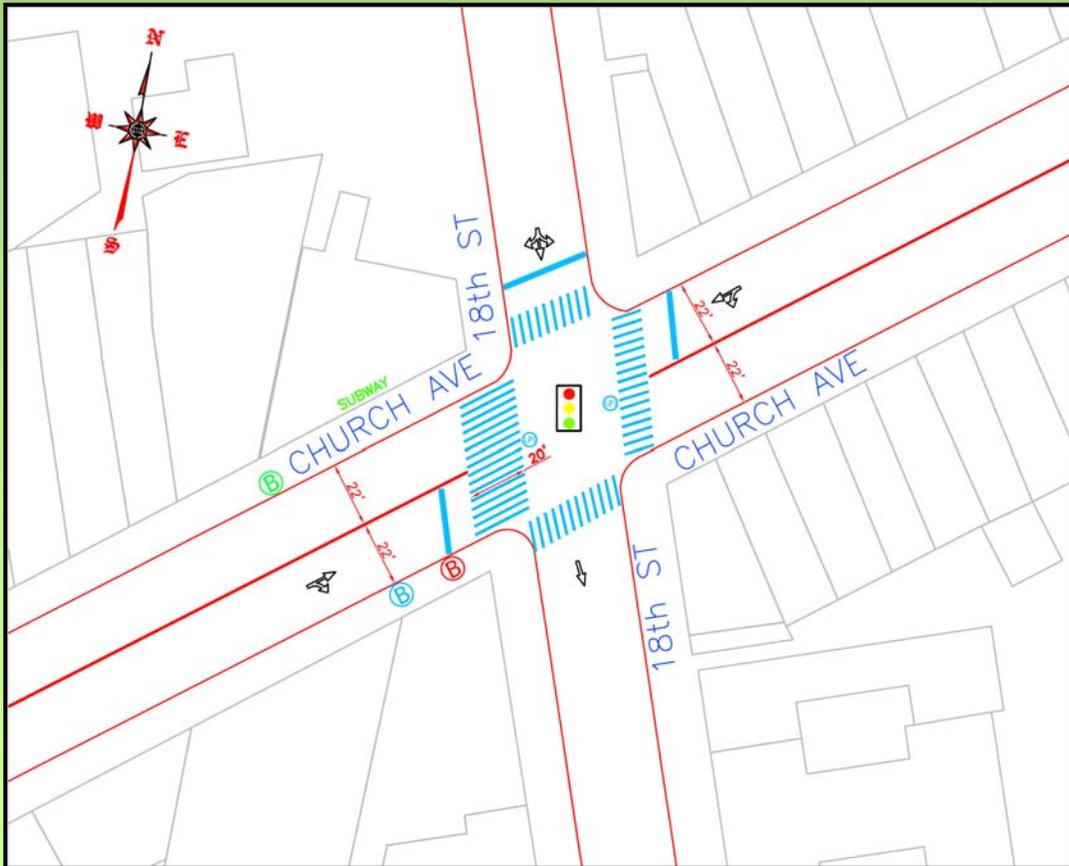
# Coney Island Avenue at Church Avenue and Albemarle Road

- Add a northbound protected left turn phase
- Install bulbouts and pedestrian ramps
- New traffic pattern with “Right Turns In Only” at Albemarle Road from Coney Island Avenue
- Install quick curb on Coney Island Avenue to prevent left turns at Albemarle Road and carwash
- Restriping of crosswalks, stop bars and other pavement markings
- Offset optimizations





# Church Avenue at East 18<sup>th</sup> Street

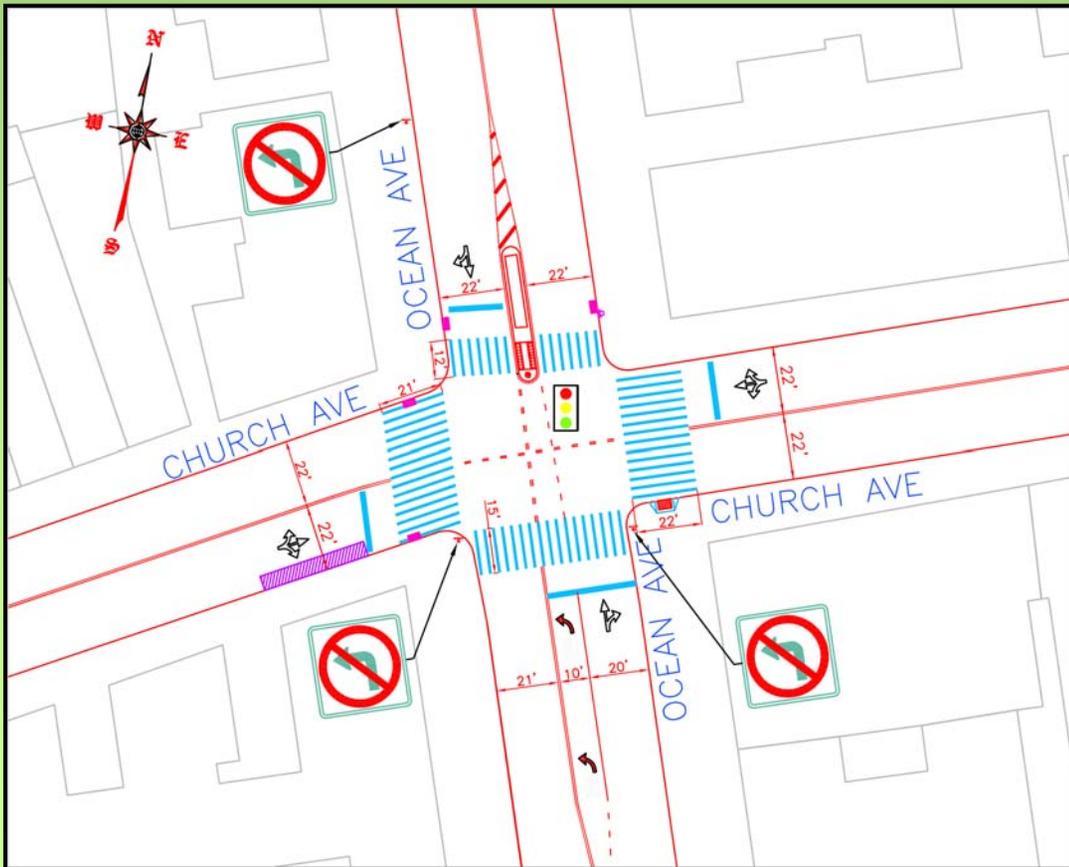


- Install LPI's on Church Avenue
- Increase west crosswalk width to 20'
- Move eastbound bus stop 10' west from new stop bar
- Restriping of crosswalks, stop bars and other pavement markings



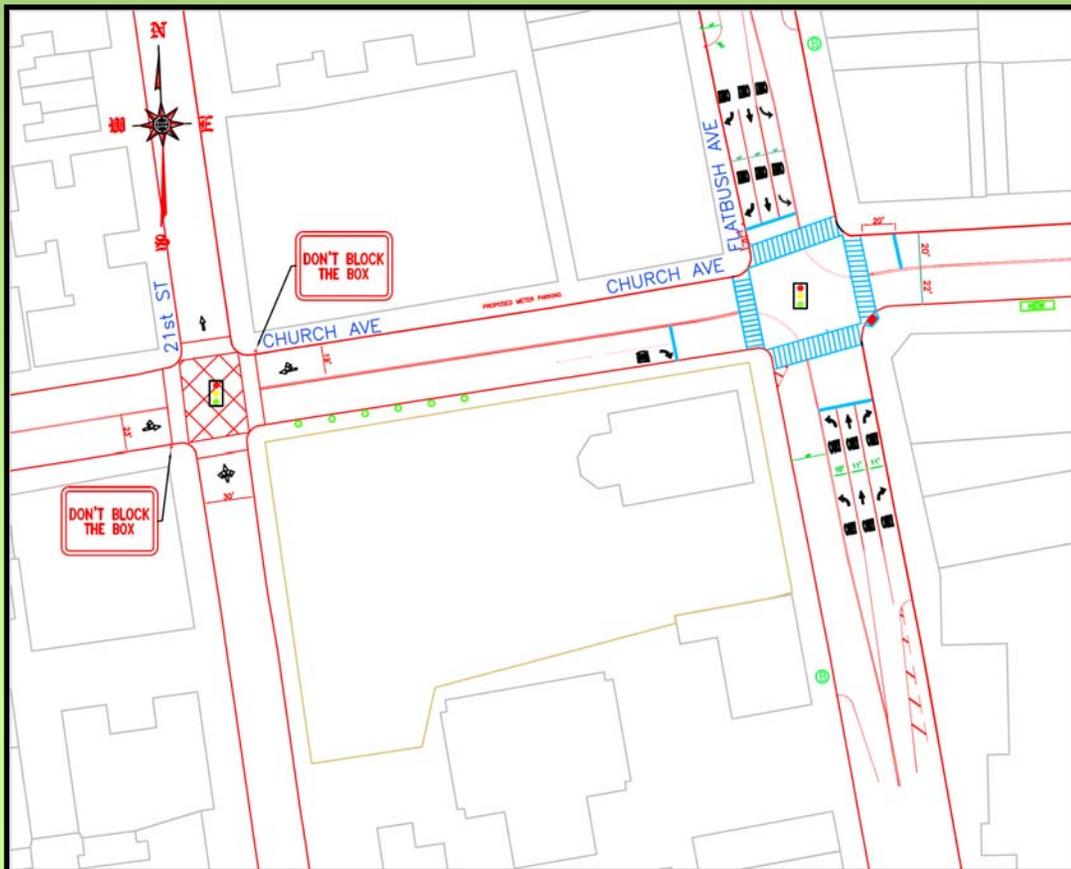
# Church Avenue at Ocean Avenue

- Prohibit southbound left turns on to Church Avenue
- Provide raised pedestrian refuge island
- Install northbound left turn bays on Ocean Avenue
- Day-lighting
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations





# Church Avenue at Flatbush Avenue & E. 21<sup>st</sup> Street

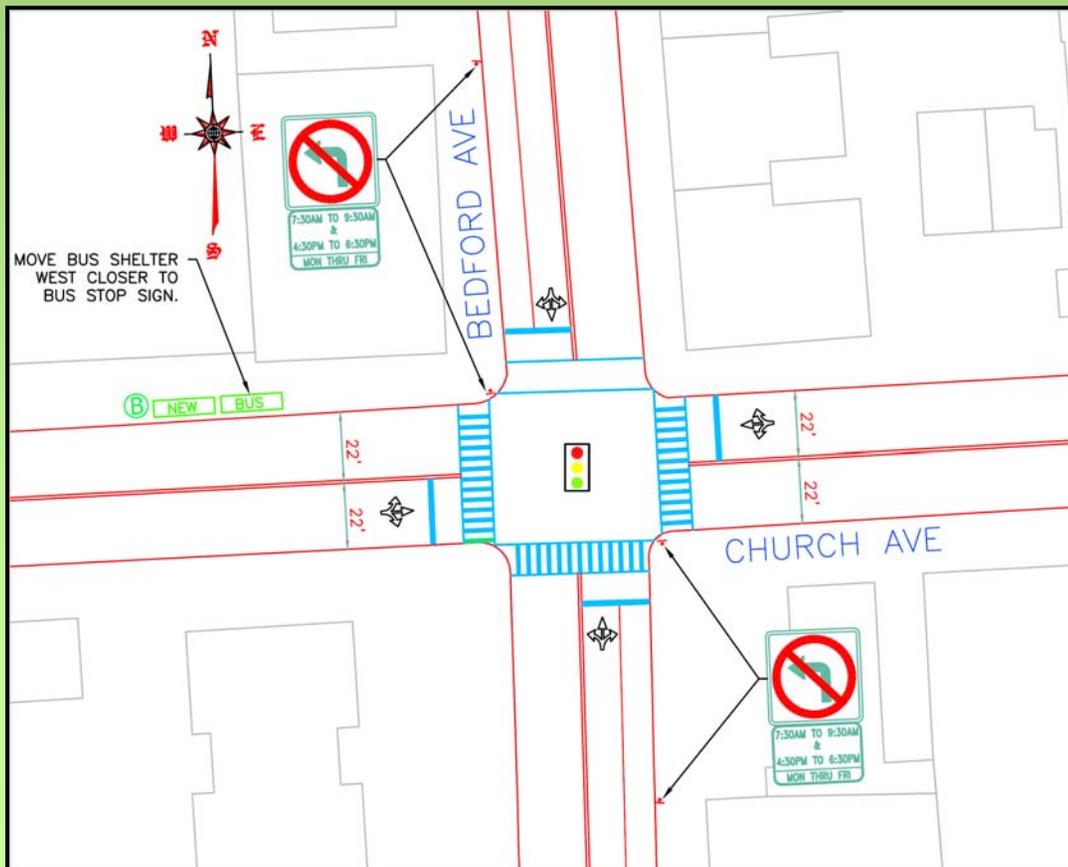


- Install “don’t Block the Box” sign with appropriate striping on 21<sup>st</sup> Street intersection
- Install north and southbound left and right turn bays on Flatbush Avenue
- Provide metered parking on south curb of Church Ave between Flatbush and East 21<sup>st</sup> Street
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations





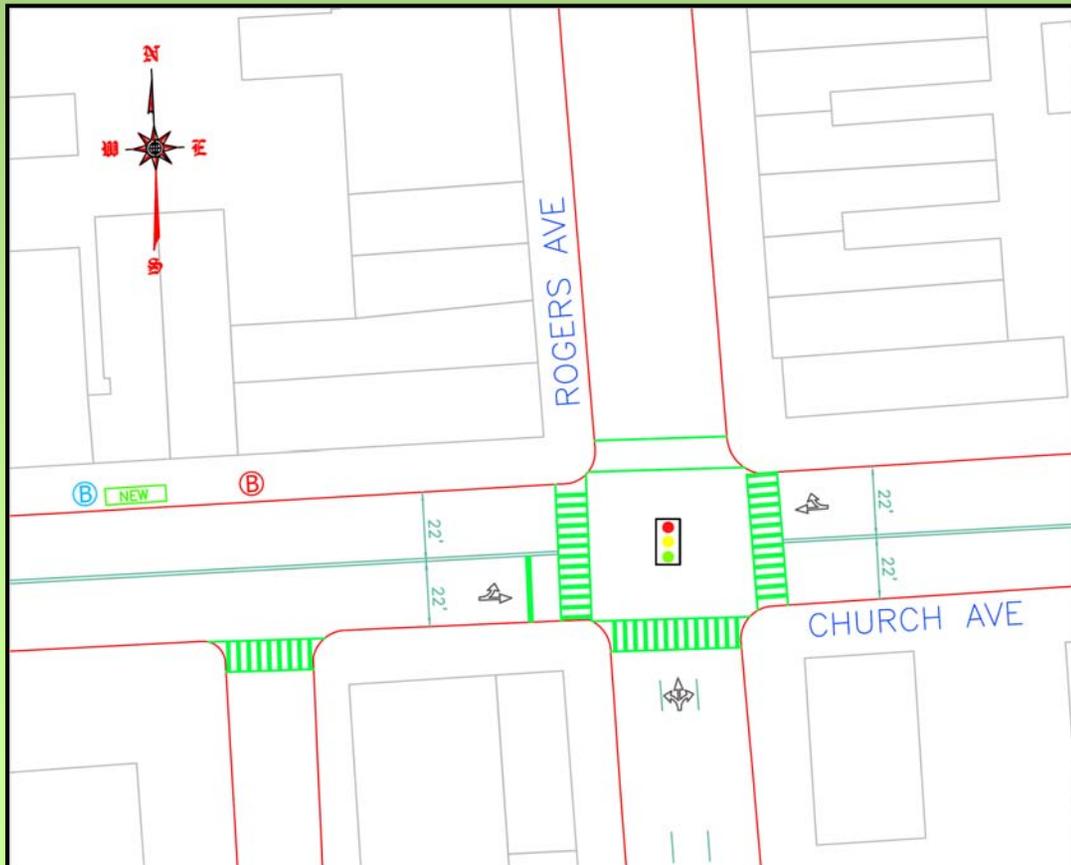
# Church Avenue at Bedford Avenue



- Prohibit northbound and southbound left turns on to Church Avenue (weekday AM/PM Peaks only)
- Relocate existing bus shelter near to the existing bus stop sign. Replace it with a new bus shelter
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations



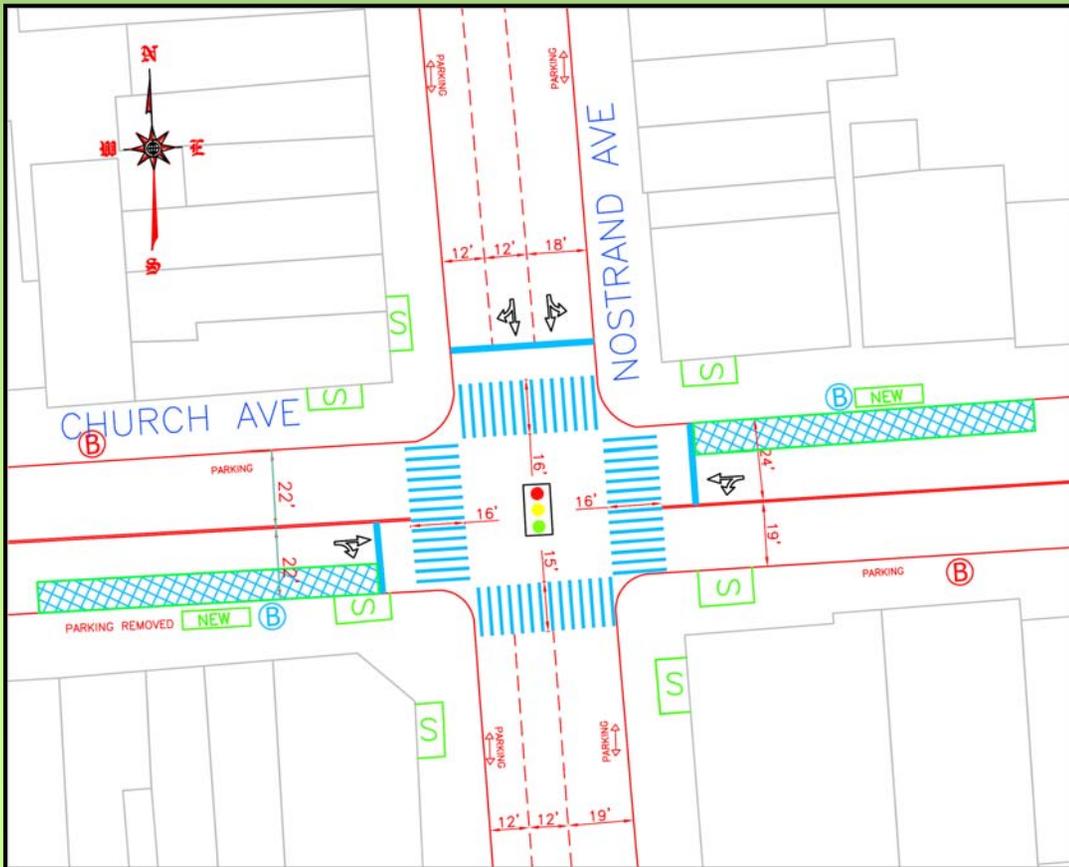
# Church Avenue at Rogers Avenue



- Extend far side bus stop by 50 feet to accommodate two simultaneous stopped buses
- Install new bus shelter



# Church Avenue at Nostrand Avenue

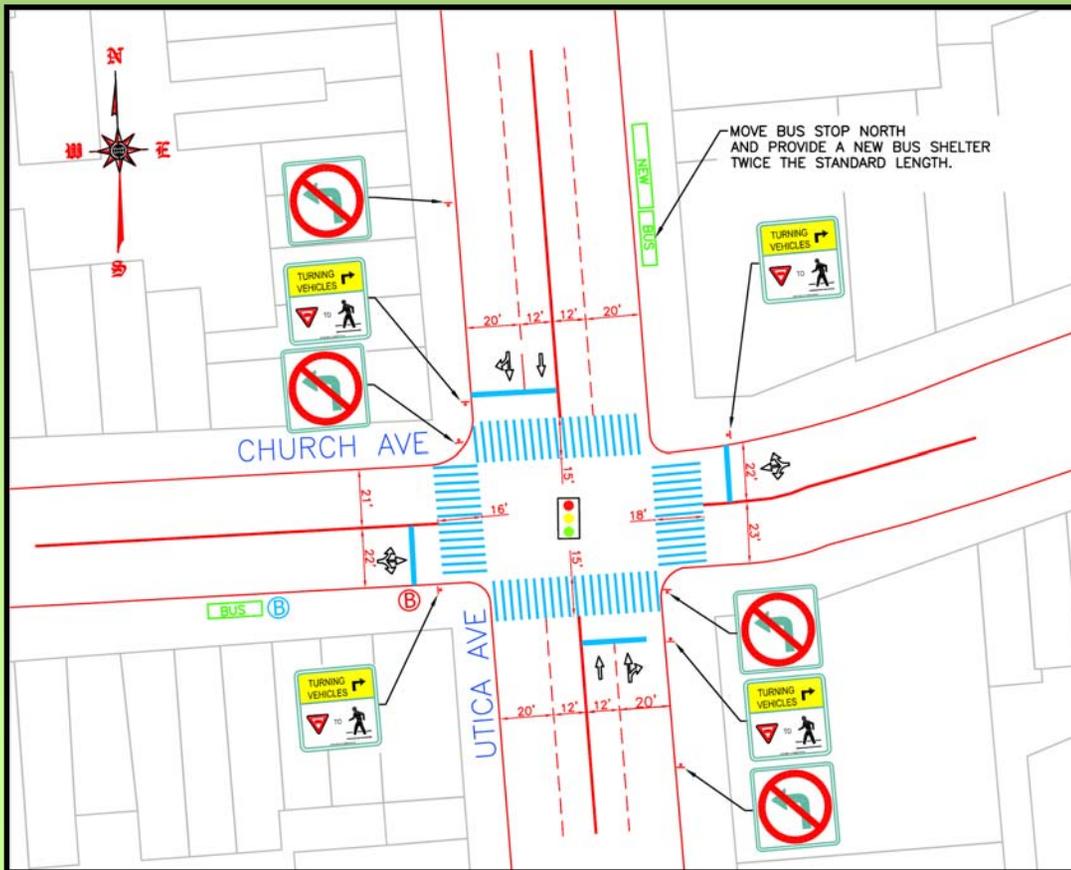


- Relocate bus stops from far side to near side on both Church Avenue approaches
- Construct bus pads and install buss shelters
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations



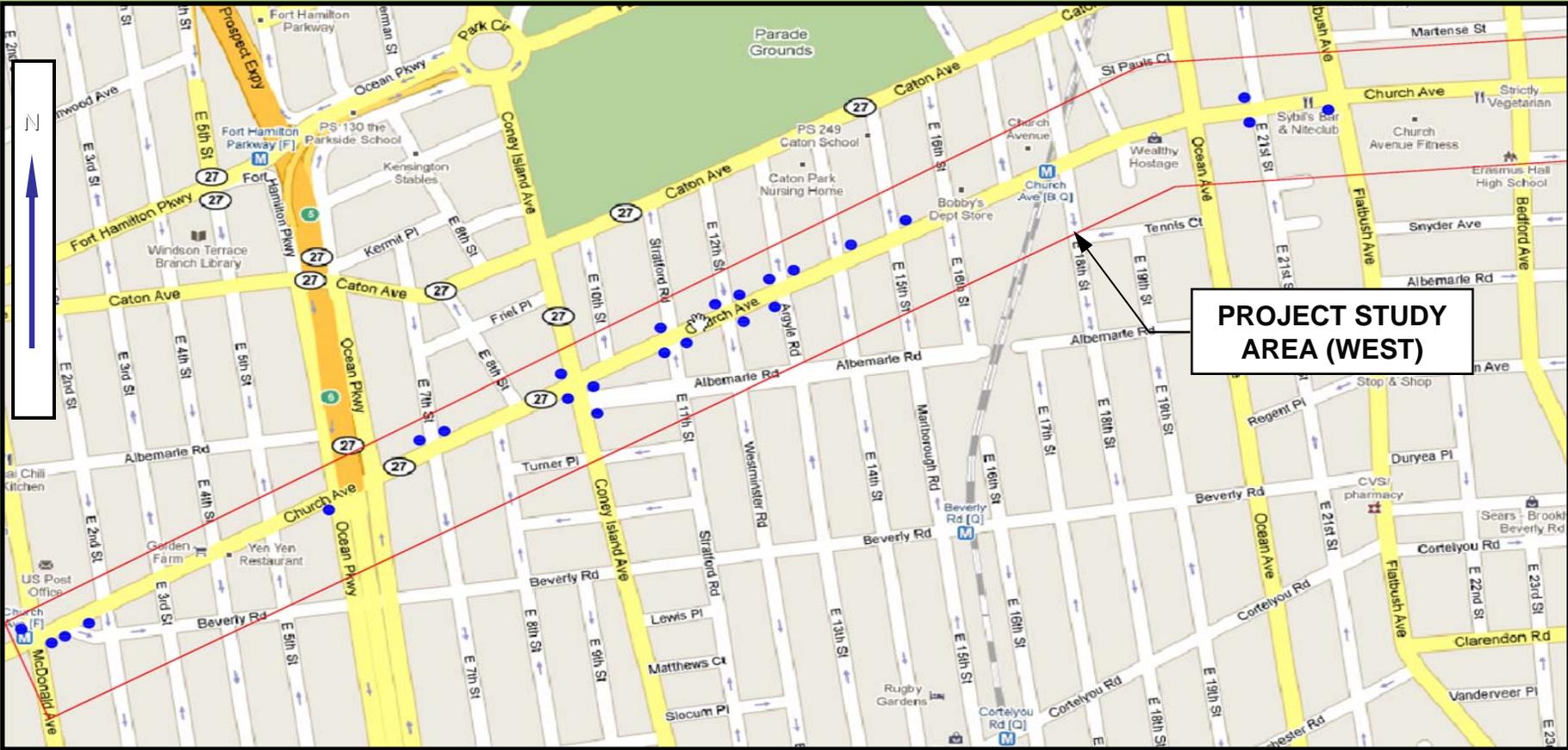


# Church Avenue at Utica Avenue



- Prohibit northbound and southbound left turns on to Church Avenue
- Installation of a new large size bus shelter on the northbound far side
- Installation of “Yield to Pedestrian” signs
- Restriping of crosswalks, stop bars and other pavement markings
- Signal timing changes and offset optimizations

# Corridor Wide New Pedestrian Ramp Installation Map



● PROPOSED PEDESTRIAN RAMP INSTALLATION LOCATIONS

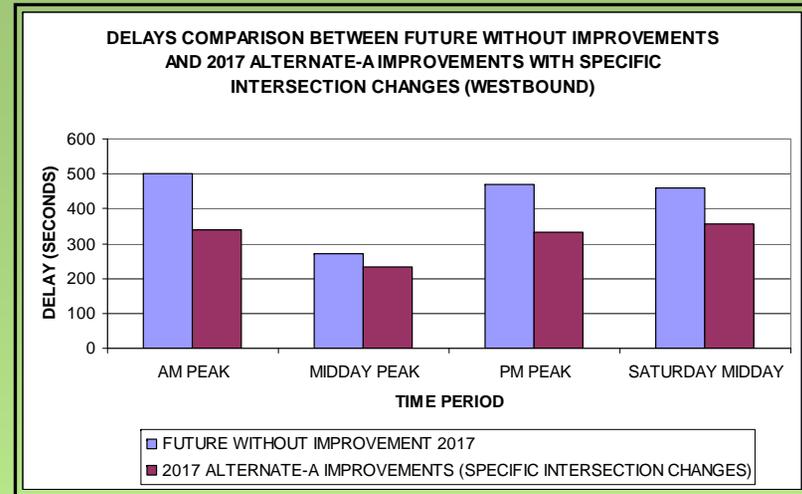
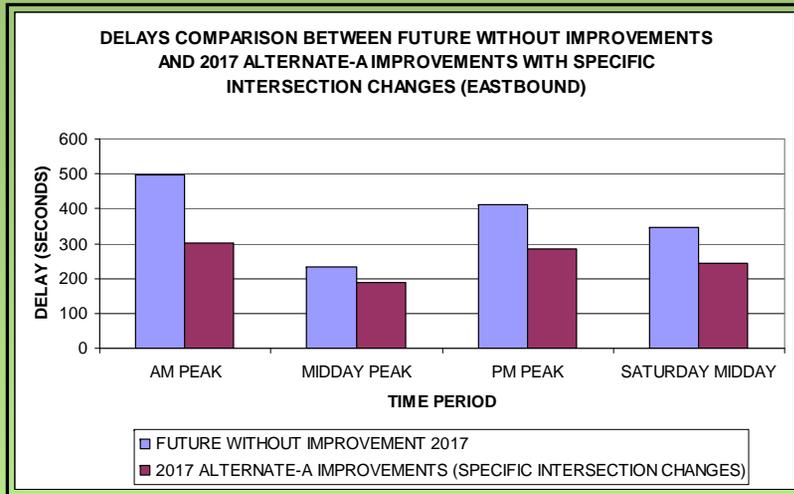
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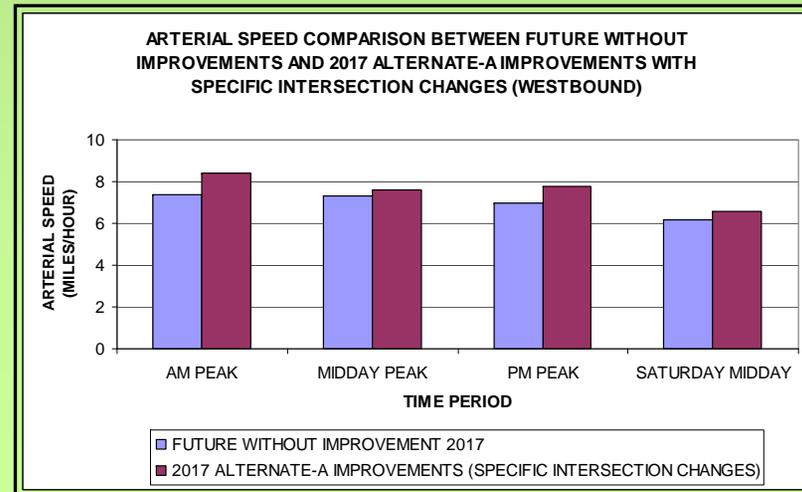
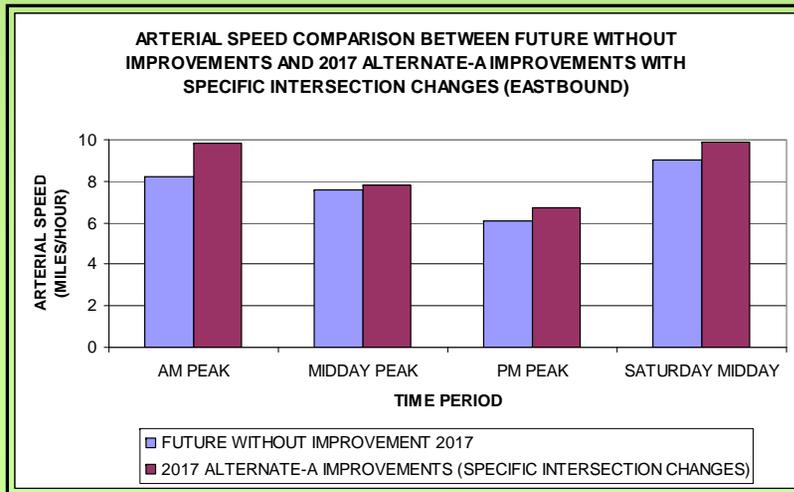
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# Anticipated Benefits

- Delays Reduction

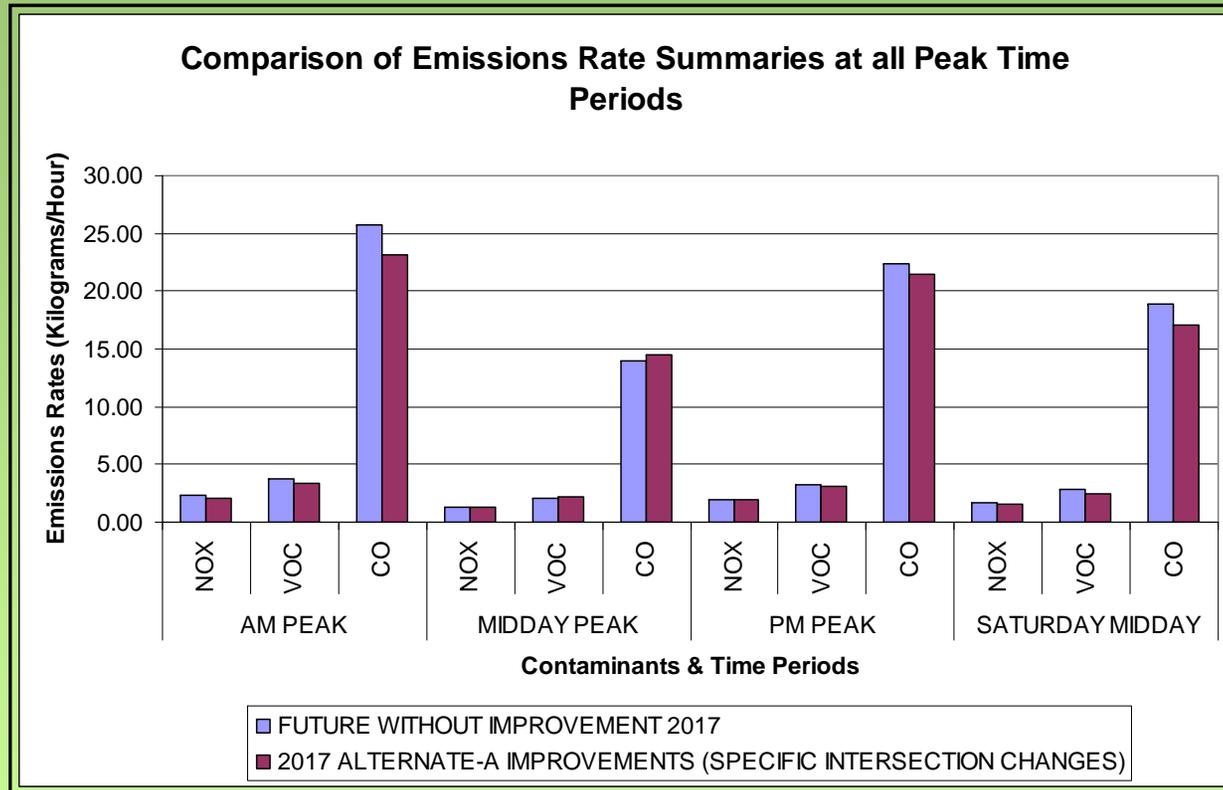


- Speed Improvements



# Anticipated Benefits

- Air Quality Results



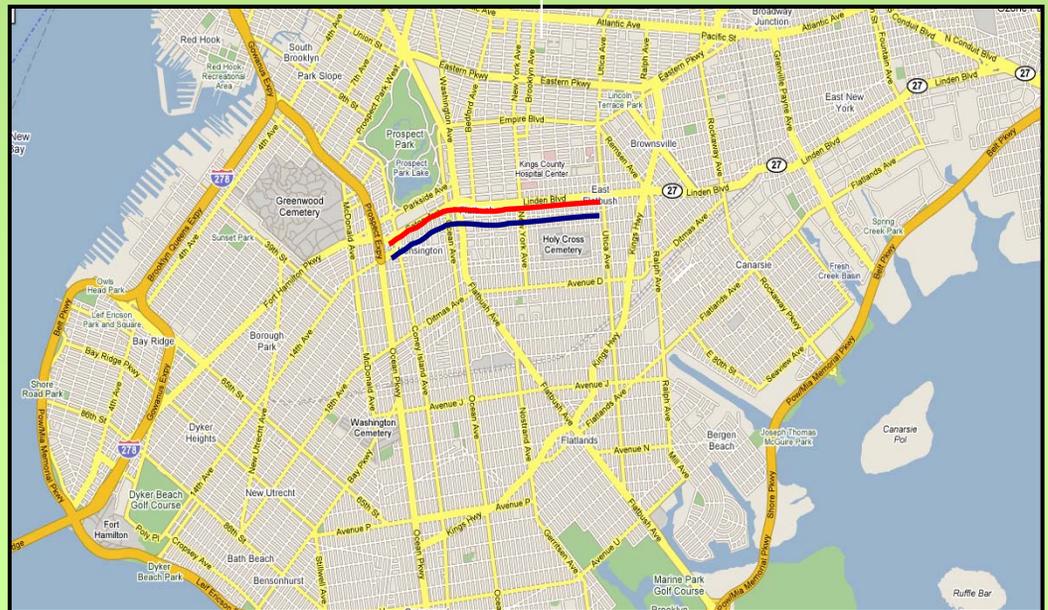
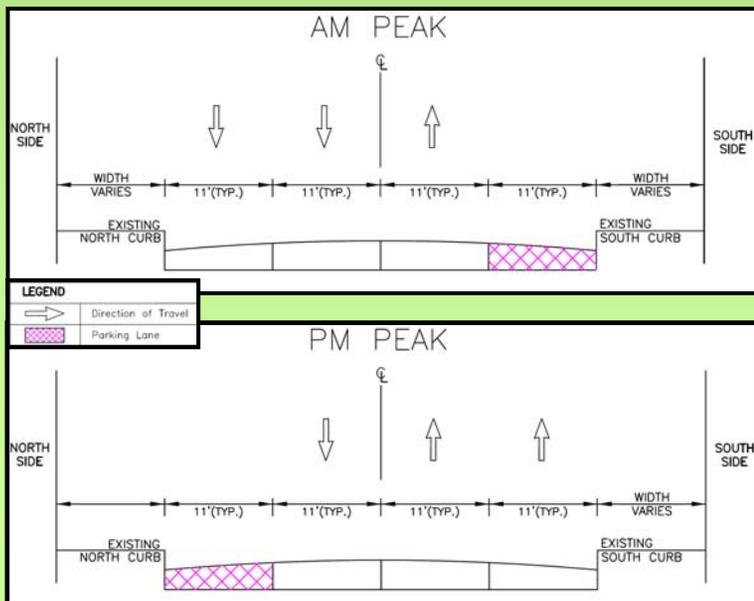
- Parking Improvements

- Installation of muni-meters, initiation of ParkSmart pilot program will increase the curb side parking between 80 to 100 additional vehicular spaces

# Alternate Proposal

## ■ Peak Direction Parking Regulation Modifications

- AM Peak (7:30 AM to 9:30 AM): Creating two peak direction travel lanes in the westbound direction by westbound curbside parking restrictions
- PM Peak (4:30 PM to 6:30 PM): Creating two peak direction travel lanes in the eastbound direction by eastbound curbside parking restrictions
- Curbside parking space removal (AM peak = 333, PM Peak = 241)



# Next Steps

- Review Public Meeting Comments
- Final Report (Spring/Summer 2010)

# QUESTIONS AND COMMENTS

<http://www.nyc.gov/html/dot/html/motorist/churchave.shtml>