New Jersey Avenue, NW
Design of Safety Improvements

Public Meeting
July 25, 2012

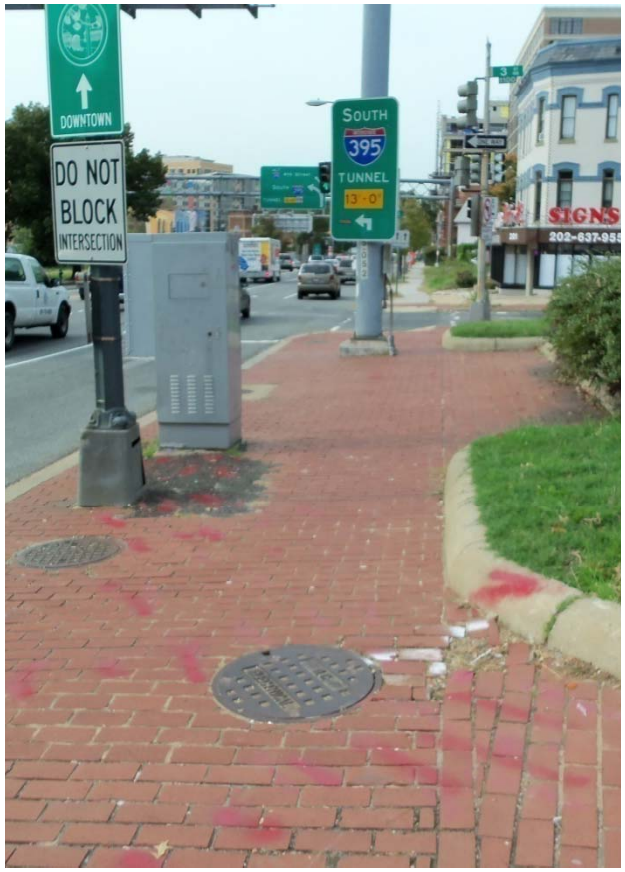
Agenda

- Project Status
- Alternatives Analysis
  - Alternatives
  - Traffic Analysis
  - Screening
- Recommended Alternative
  - Obtain Feedback
  - Finalize
- Project Schedule
- Next Steps

Project Location

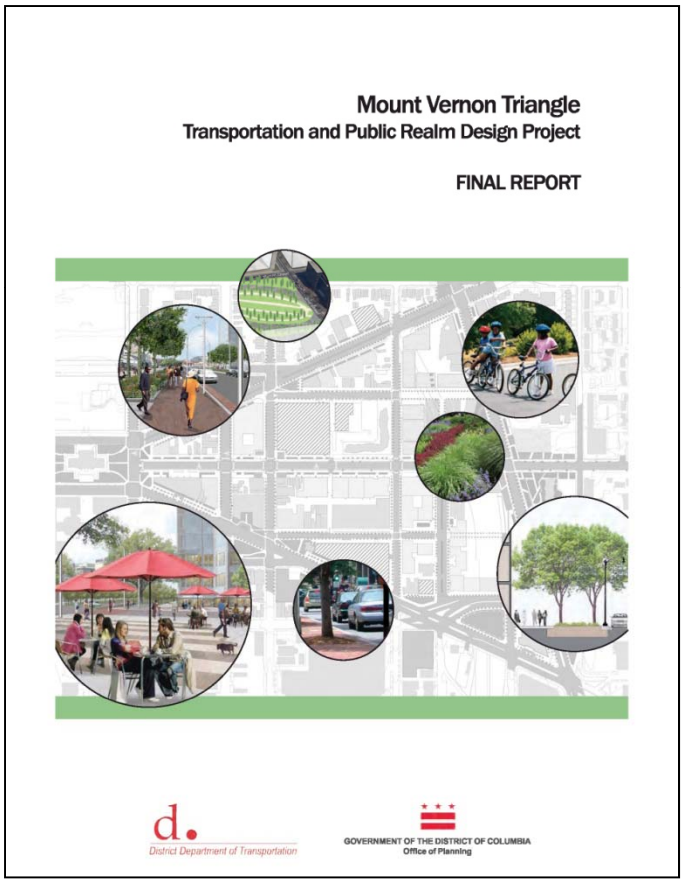
Project Status

- Multi-modal considerations evaluated Spring 2012
- Recommendation presented to DDOT in May 2012
- Public update tonight

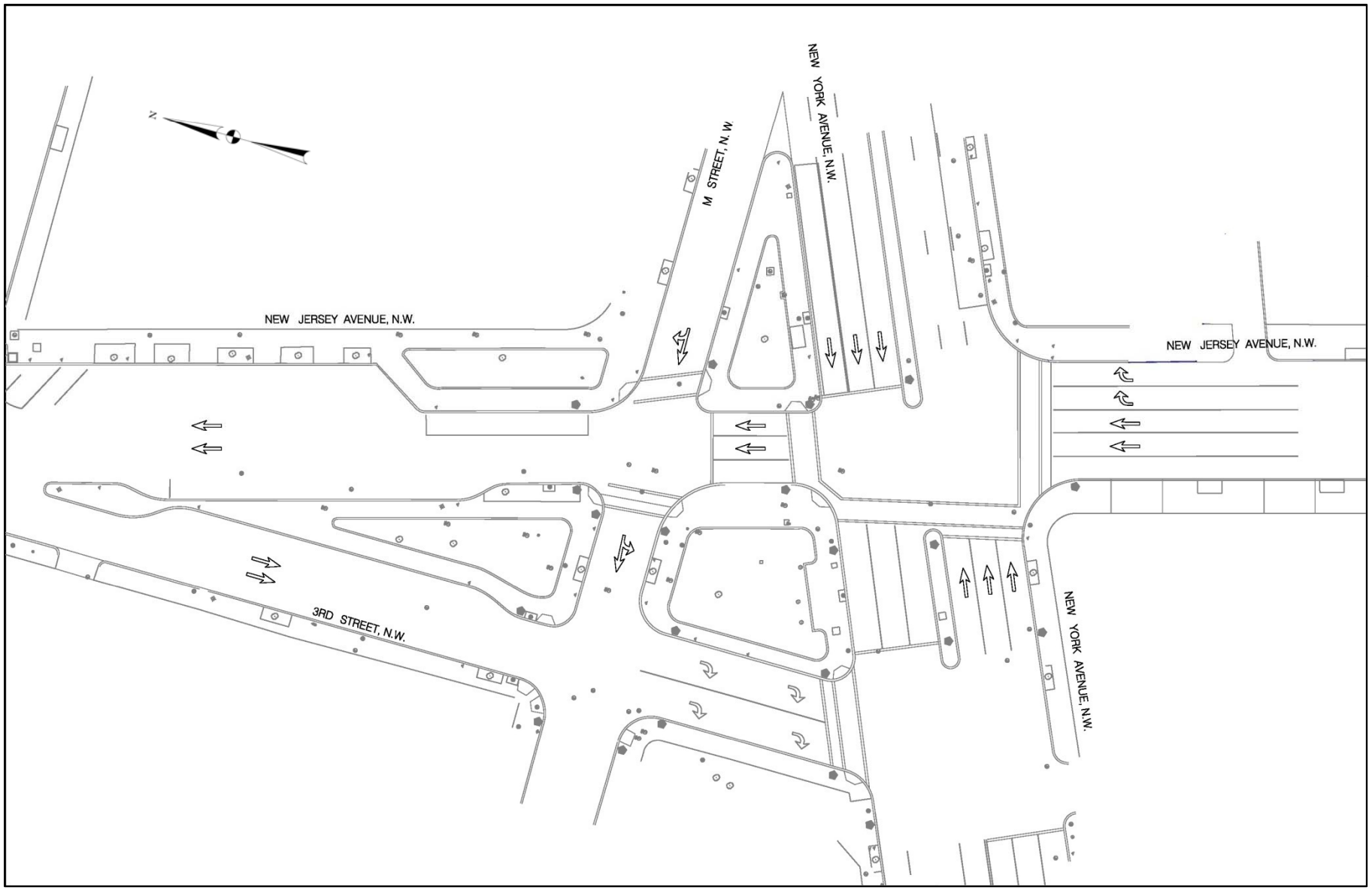


Alternatives

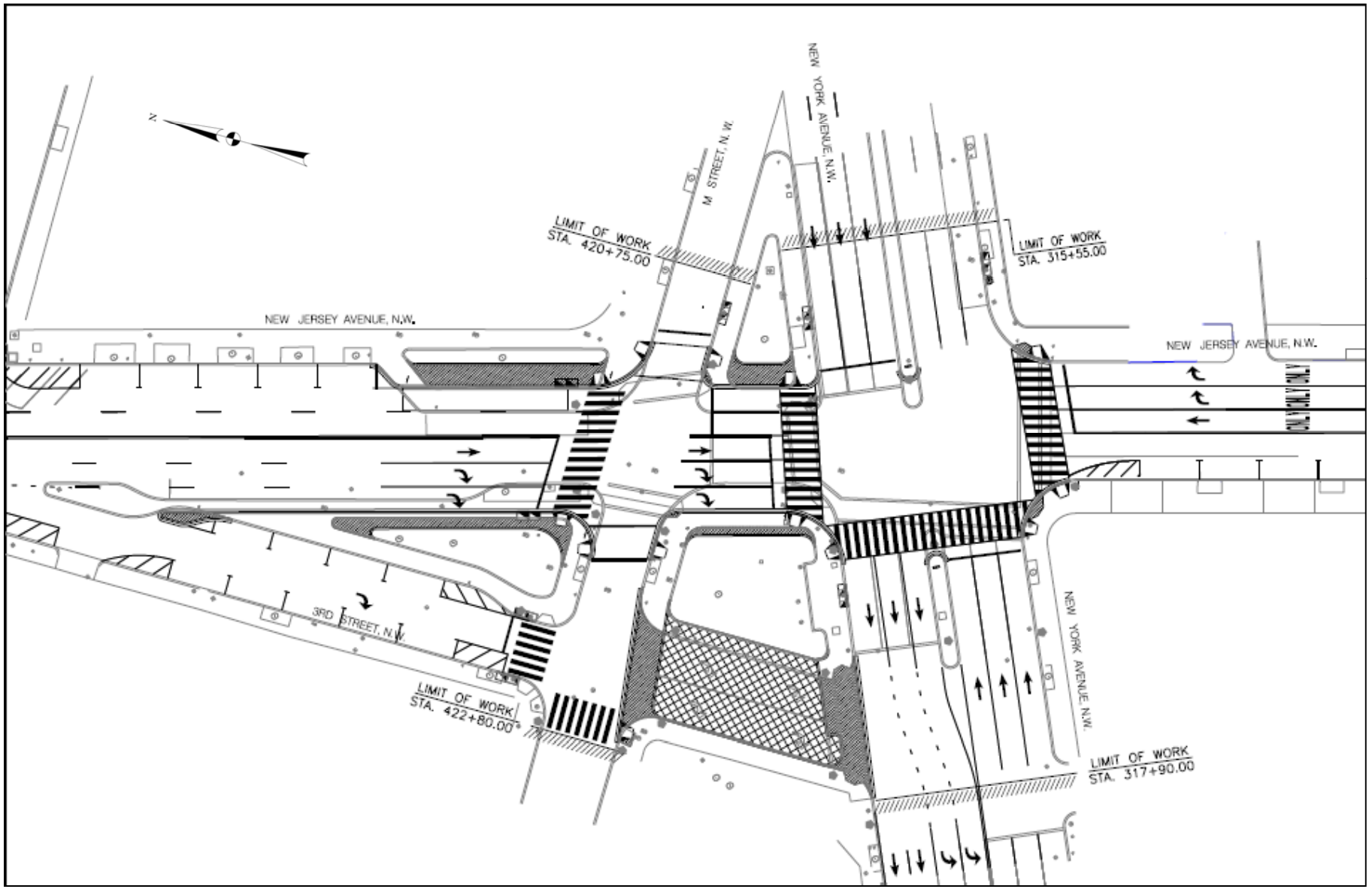
1. Mount Vernon Triangle Study
2. DDOT 100% Review Comments
   - Modifications to capacity
   - Increased turning radii
3. Combined or New Alternative with provisions for multi-modal opportunities



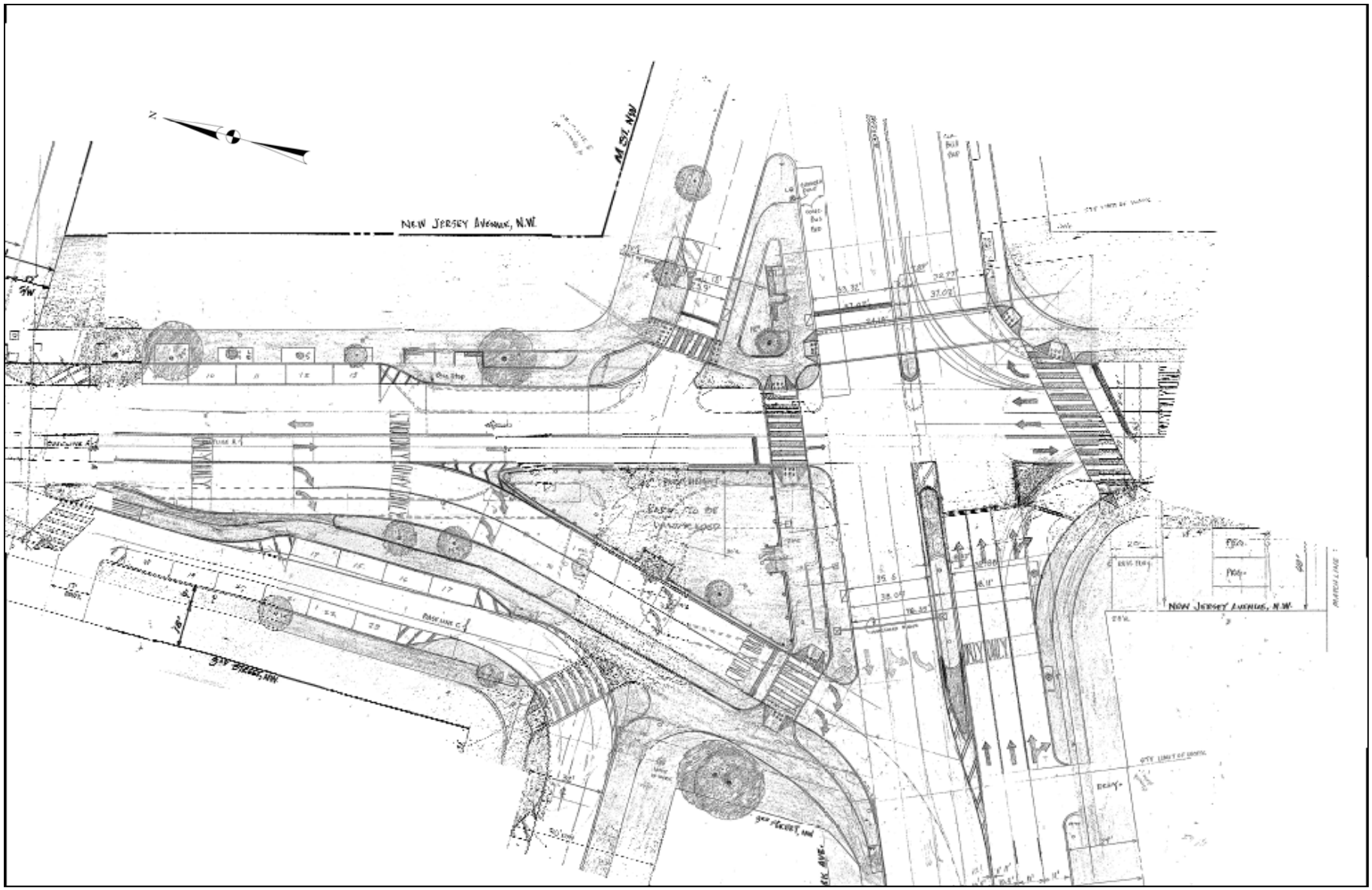
Existing


N
M STREET, N. W
NEW YORK AVENUE, N.W.
NEW JERSEY AVENUE, N.W.
NEW JERSEY AVENUE, N.W.
3RD STREET, N.W.
NEW YORK AVENUE, N.W.

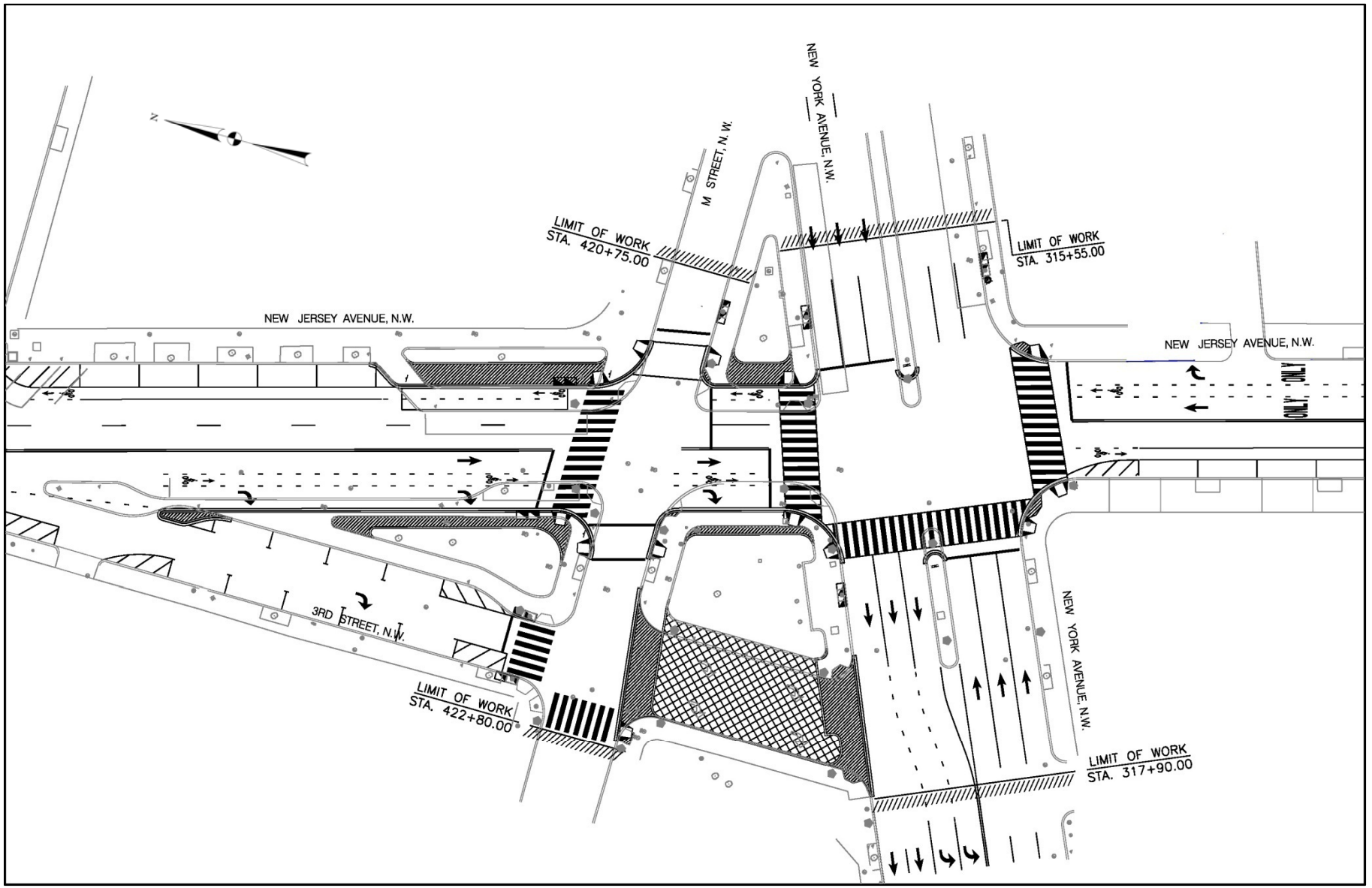
1- Mount Vernon Triangle



2 - DDOT 100% Comment

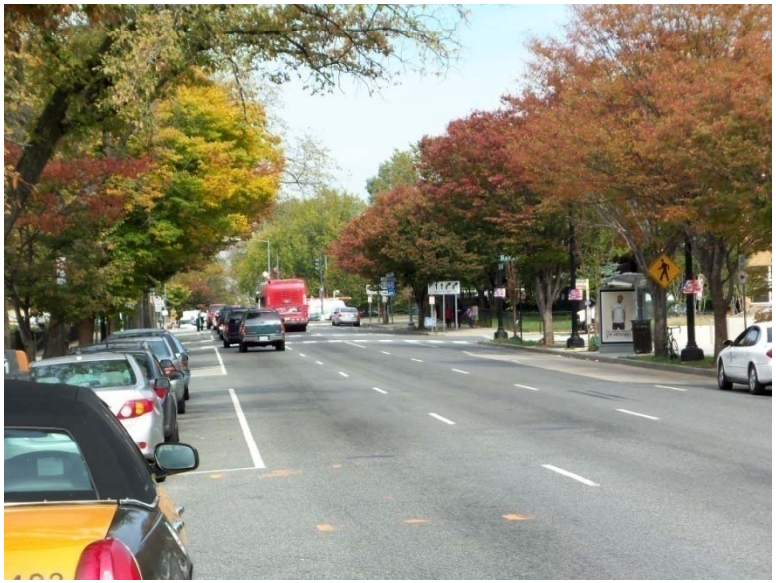


3 - New Multi-Modal Alternative



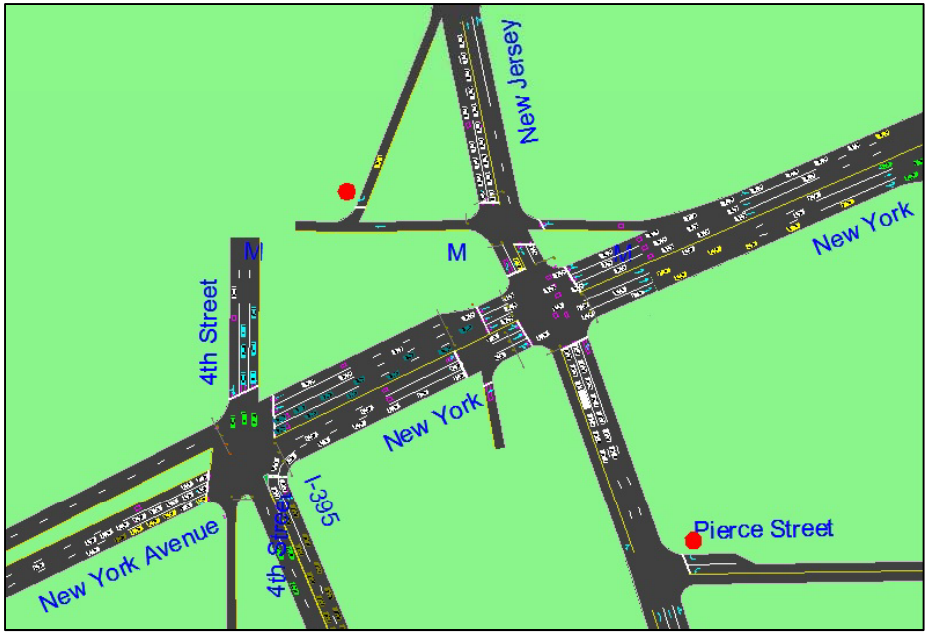
Data Collection

- Used turning movement counts from 2011
- Obtained Wal Mart Traffic Impact Study from August 2011
- Applied MWCOG model to account for other growth
- Developed 2022 No Build Condition



Traffic Analysis

- Conducted traffic analysis with Synchro
- Forecasted two-way operation
- Evaluated crash information
- Evaluated multi-modal characteristics including pedestrian, cyclist and transit activity



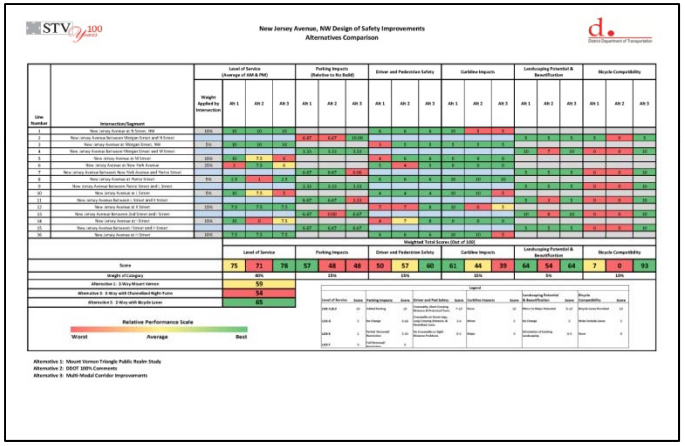
Traffic Analysis Results

Intersection of New Jersey Avenue at	2022 No Build			Alternative 1: Mount Vernon Triangle Public Realm Study			Alternative 2: DDOT 100% Comments			Alternative 3: Multi-Modal Corridor Improvements		
	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
N Street	A (A)	9.3 (9.8)	0.43 (0.39)	B (A)	19.6 (5.9)	0.44 (0.39)	A (A)	6.3 (5.7)	0.42 (0.33)	A (A)	10 (6.1)	0.57 (0.39)
New York Avenue	D (C)	45.2 (20.9)	1.06 (0.96)	F (C)	132.7 (22.1)	1.47 (1.01)	D (C)	42.7 (21)	1.08 (1.01)	E (C)	77.3 (22)	1.12 (1.01)
K Street	C (B)	28.3 (17.2)	0.78 (0.62)	D (C)	52.4 (26.7)	1.03 (0.89)	D (C)	54.9 (28.7)	1.02 (0.89)	D (C)	46.8 (23)	1.02 (0.87)
2nd Street	B (B)	11 (12.4)	0.23 (0.37)	Removed			Removed			Removed		
I Street	B (B)	10.3 (11)	0.17 (0.21)	C (C)	24 (23.5)	0.62 (0.67)	F (F)	142.4 (150.9)	1.19 (1.26)	C (D)	24 (35.6)	0.77 (0.84)
H Street	D (C)	36.2 (26.8)	1.02 (0.89)	D (C)	47.3 (30.2)	1.07 (0.89)	D (C)	43.6 (26.8)	1.02 (0.89)	D (C)	47.4 (29.8)	1.07 (0.89)

AM (PM)
V/C - Volume to Capacity

Alternative Screening

- Weighted scoring system of:
  - Traffic / Safety Aspects
  - Parking Impacts
  - Bicycle/Pedestrian Aspects
  - Curb Impacts/Construction Cost
  - Beautification
- Alternative 3 provides best score
  - Could impact parking
  - Likely is the highest cost



STV 100 Years

New Jersey Avenue, NW Design of Safety Improvements
Alternatives Comparison

District Department of Transportation

Line Number	Intersection/Segment	Weight Applied by Intersection	Level of Service (Average of AM & PM)			Parking Impacts (Relative to No Build)			Driver and Pedestrian Safety			Curbline Impacts			Landscaping Potential & Beautification			Bicycle Compatibility		
			Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3
1	New Jersey Avenue at N Street, NW	10%	10	10	10				6	6	6	10	5	5						
2	New Jersey Avenue between Morgan Street and N Street					6.67	6.67	10.00							5	5	5	5	0	5
3	New Jersey Avenue at Morgan Street, NW	5%	10	10	10				3	5	5	5	5	5						
4	New Jersey Avenue between Morgan Street and M Street					3.33	3.33	3.33							10	7	10	0	0	10
5	New Jersey Avenue at M Street	10%	10	7.5	6				4	6	6	0	0	0						
6	New Jersey Avenue at New York Avenue	25%	1	7.5	6				5	4	5	0	0	0						
7	New Jersey Avenue between New York Avenue and Pierce Street					6.67	6.67	0.00							5	5	5	0	0	10
8	New Jersey Avenue at Pierce Street	5%	2.5	1	2.5				6	6	6	10	10	10						
9	New Jersey Avenue between Pierce Street and L Street					3.33	3.33	3.33							5	5	5	0	0	10
10	New Jersey Avenue at L Street	5%	10	7.5	5				4	4	4	10	10	5						
11	New Jersey Avenue between L Street and K Street					6.67	6.67	3.33							5	3	5	0	0	10
12	New Jersey Avenue at K Street	15%	7.5	7.5	7.5				7	7	8	10	0	5						
13	New Jersey Avenue between 2nd Street and I Street					6.67	0.00	6.67							10	8	10	0	0	10
14	New Jersey Avenue at I Street	15%	10	0	7.5				4	7	8	0	0	0						
15	New Jersey Avenue between I Street and H Street					6.67	6.67	6.67							5	5	5	0	0	10
16	New Jersey Avenue at H Street	10%	7.5	7.5	7.5				6	6	6	10	10	5						

Weighted Total Scores (Out of 100)

	Level of Service			Parking Impacts			Driver and Pedestrian Safety			Curbline Impacts			Landscaping Potential & Beautification			Bicycle Compatibility		
Score	75	71	78	57	48	48	50	57	60	61	44	39	64	54	64	7	0	93
Weight of Category	40%			15%			15%			15%			5%			10%		

Alternative 1: 2-Way Mount Vernon	59
Alternative 2: 2-Way with Channelized Right-Turns	54
Alternative 3: 2-Way with Bicycle Lanes	65

Relative Performance Scale

Worst — Average — Best

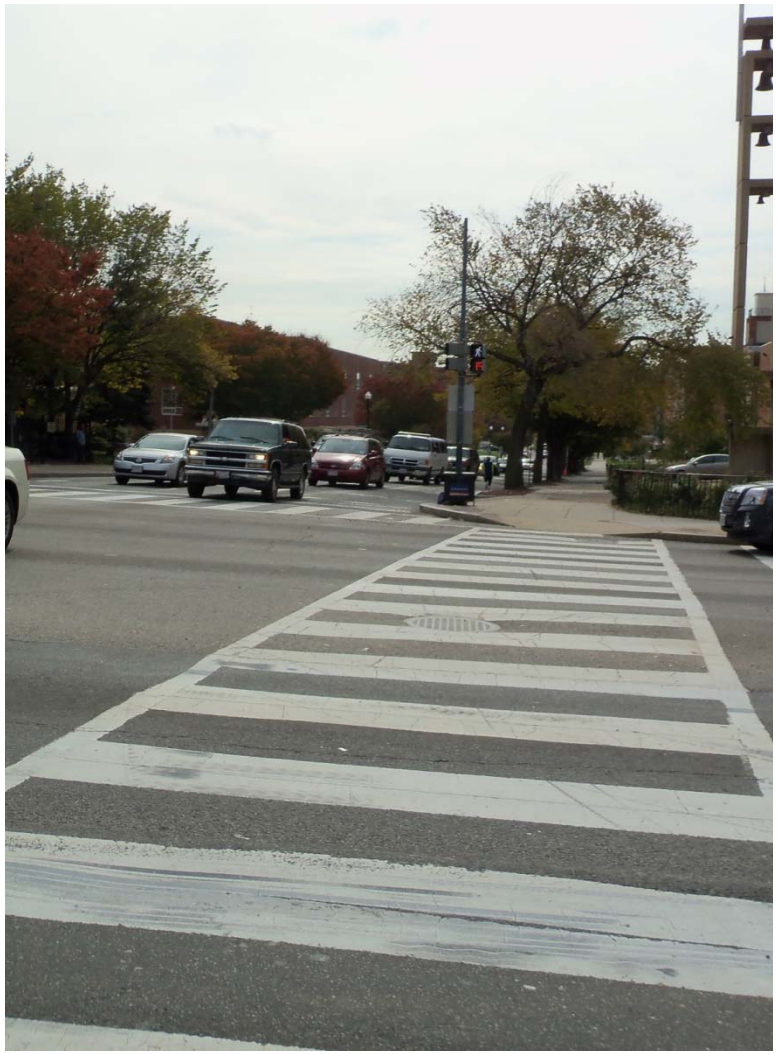
Legend

Level of Service	Score	Parking Impacts	Score	Driver and Ped Safety	Score	Curbline Impacts	Score	Landscaping Potential & Beautification	Score	Bicycle Compatibility	Score
LOS A,B,C	10	Added Parking	10	Crosswalks, Short Crossing Distance & Protected Turns	7-10	None	10	Minor to Major Potential	6-10	Bicycle Lanes Provided	10
LOS D	5	No Change	6.66	Crosswalks on Some Legs, Long Crossing Distance, & Permitted Turns	3-6	Minor	5	No Change	5	Wide Outside Lanes	5
LOS E	2	Partial Removal/ Restriction	3.33	No Crosswalks or Sight Distance Problems	0-2	Major	0	Elimination of Existing Landscaping	0-4	None	0
LOS F	0	Full Removal/ Restriction	0								

Alternative 1: Mount Vernon Triangle Public Realm Study
Alternative 2: DDOT 100% Comments
Alternative 3: Multi-Modal Corridor Improvements

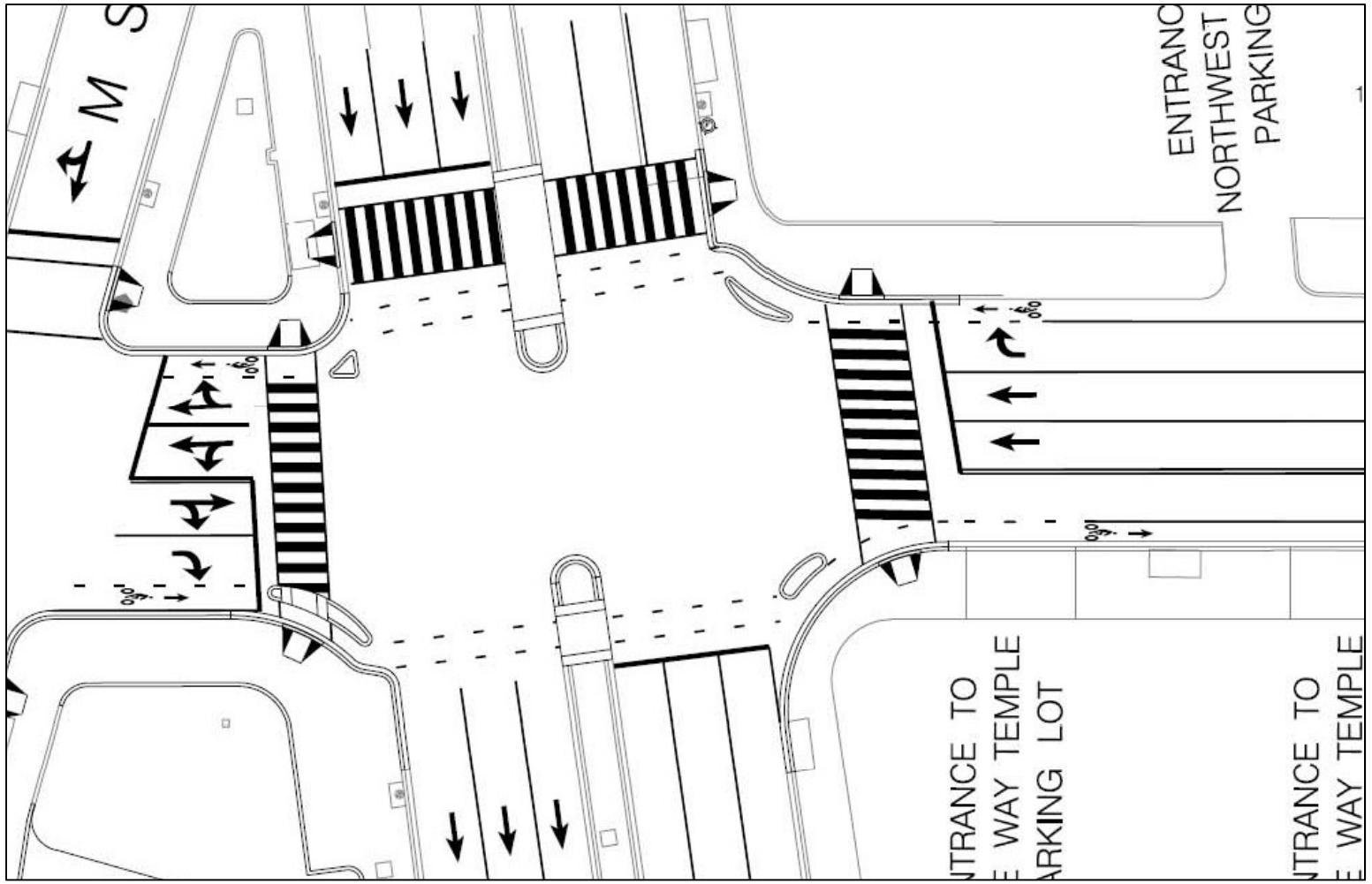
Recommended Alternative

- On-road bicycle facility
- Typical 50 foot section throughout limit of project
  - 3 travel lanes (11-10-11 feet)
  - 2 NB and 1 SB
  - 2 bike lanes (10 feet)
  - 1 parking lane (8 feet)
- Increased landscaping
- Pedestrian upgrades
- No major change to traffic operations



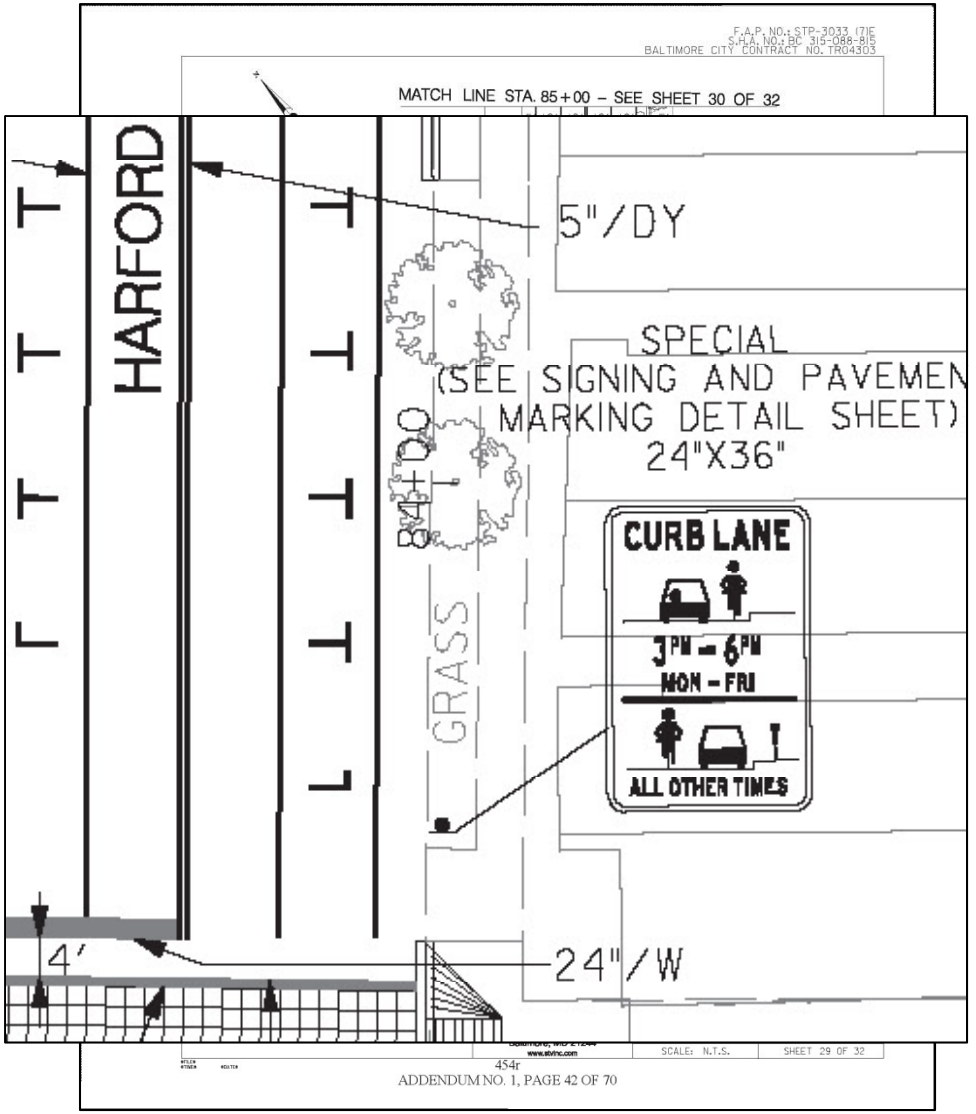
Innovative Bike Treatment

- Bike lanes right side



Additional Parking Opportunities

- Floating bike lanes
  - Provide for off peak parking
  - Provide guidance for cyclists and vehicles during different peaks
- Could provide **40** additional parking spaces off peak

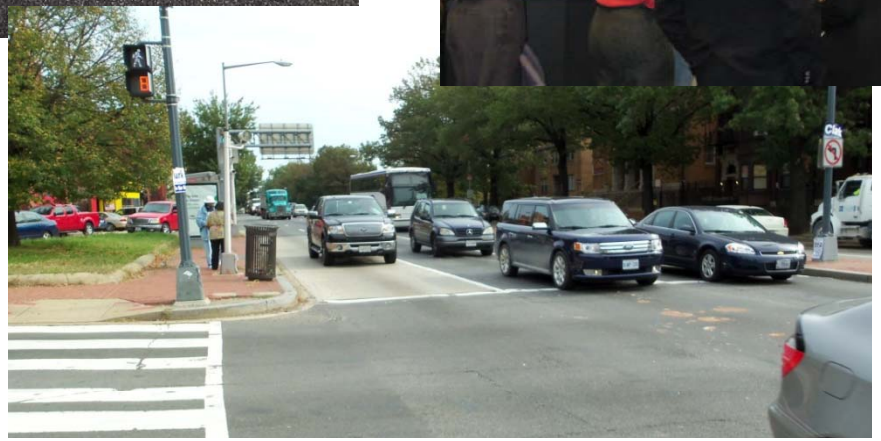


Project Schedule

- Alternatives Analysis – May 2012
- **Public Update – July 2012**
- 30% Submittal – August 2012
- 65% Submittal – October 2012
- 90% Submittal – January 2013
- 100% Submittal – February 2013

Next Steps

- Public Input
- Survey
- Geotechnical Analysis
- 30% Submittal



Questions?

- Thank you for your time

Innovative Bicycle Treatment

- Bike lanes stay right at intersection; cyclists navigate like pedestrians

N Street

- Bike lanes initiate/terminate on south leg of the intersection

N Street to New York Avenue

- Bike lanes initiate/terminate on south leg of the intersection

New York Avenue

- Pedestrian crossings provided on both legs of NYA
- Leading pedestrian interval not considered
- Unique Dutch treatment considered for cyclist traffic along NJA

Dutch Bicycle Treatment

- Add U Tube Video

New York Avenue to L Street

- Bike lanes initiate/terminate on south leg of the intersection

L Street to K Street

- Bike lanes initiate/terminate on south leg of the intersection

K Street

- Bike lanes initiate/terminate on south leg of the intersection

H Street to I Street

- Bike lanes initiate/terminate on south leg of the intersection

I Street

- Bike lanes initiate/terminate on south leg of the intersection

I Street to H Street

- Bike lanes initiate/terminate on south leg of the intersection

H Street

- Bike lanes initiate/terminate on south leg of the intersection

Scope of Work

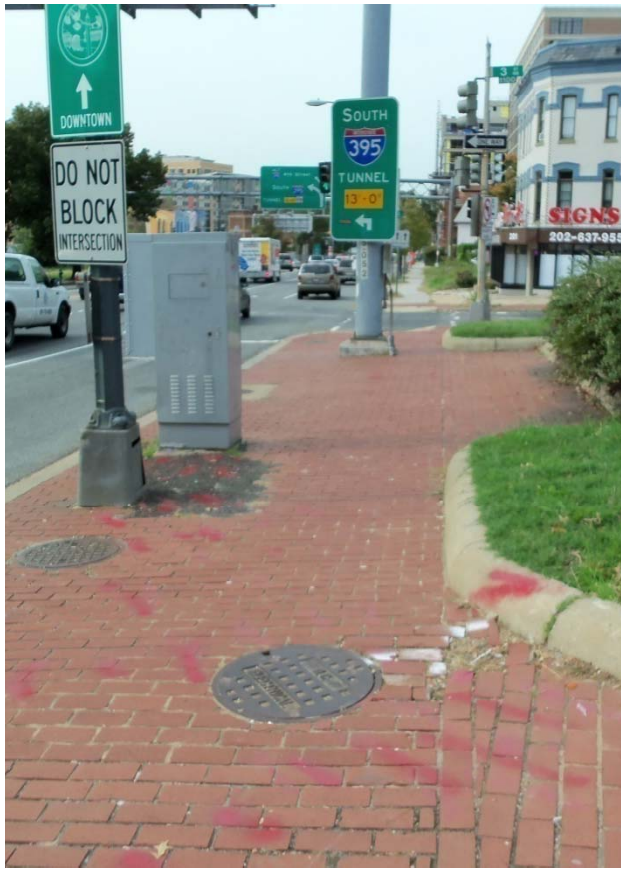
- Conduct a traffic analysis to determine alternative to construct based on previous alternatives
- Coordinate with community to achieve consensus on alternative moving forward
- 65% contract documents
- 100% contract documents
- Provide construction phase services as necessary

Alternatives Analysis

1. Mount Vernon Triangle Study
2. DDOT 100% Review Comments
3. Combined or New Alternative with provisions for multi-modal opportunities

Final Design

- Roadway Design
- Erosion and Sediment Control
- Maintenance of Traffic
- Traffic Signalization/Interconnect
  - New York Avenue
  - M Street (if required)
  - K Street
  - 2nd Street/I(Eye) Street
- Signing and Pavement Marking
- Street Lighting



Final Design

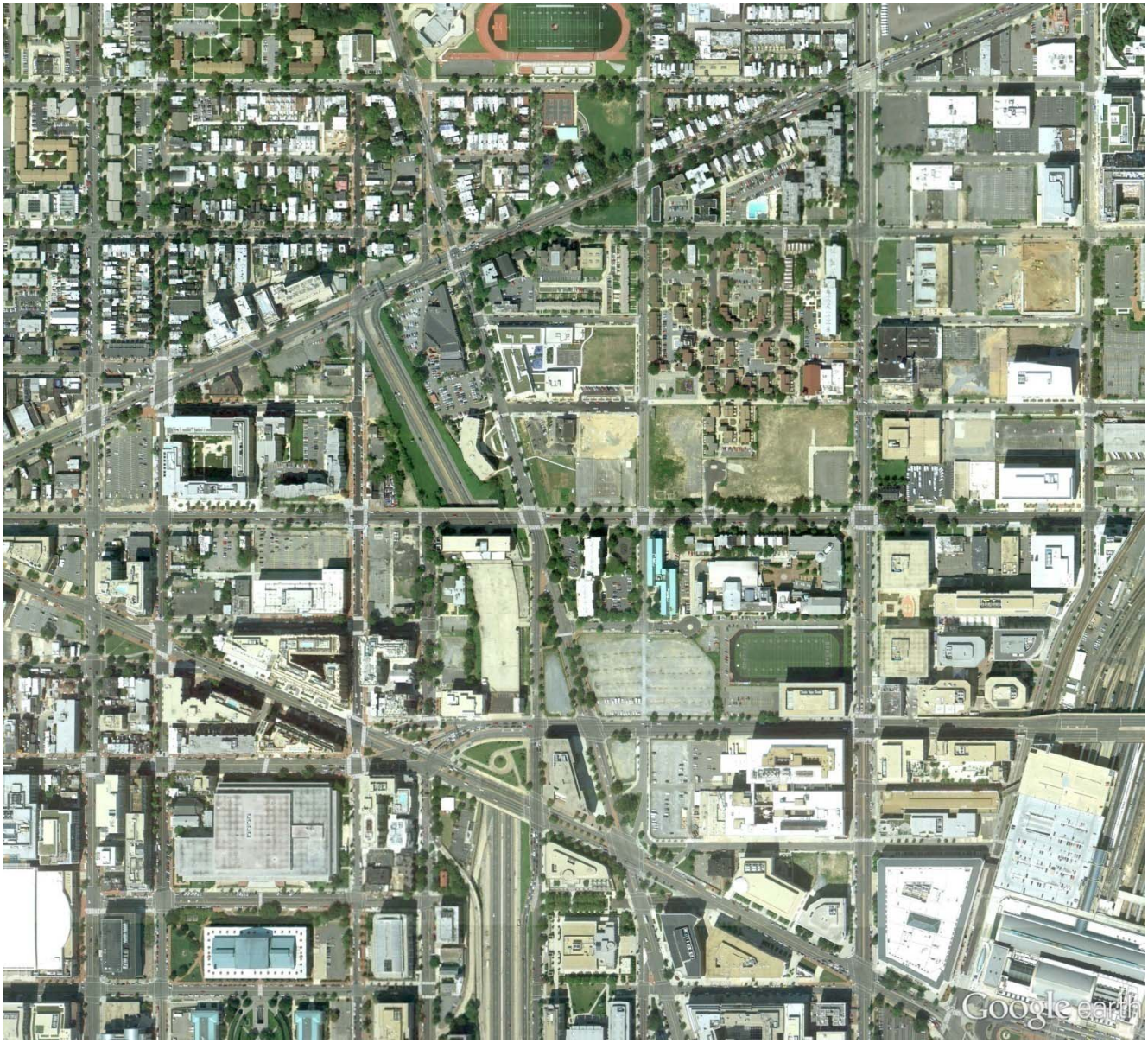
- Horizontal/Vertical Alignment
- Traffic Signal Reconstruction
- Maintenance of Traffic (including cyclists & pedestrians)
- Signing & Pavement Marking
- Lighting
- Landscaping

Follow-Up Information

- As-built utility information at a number of locations
- DDOT public involvement coordination

Project Opportunities

- Deliver the best project to District's residents
- Realize vision of Transportation & Public Realm Study
- B/C near 2.0 at NYA/NJA alone
- NJA bicycle facilities would tie into planned improvements along NYA and M Street
- Expanded multi-modal connections directly to growing areas of the City
- Safer pedestrian crossings
- Replacement of aging infrastructure


Google earth

Alternative 3 – Bicycle Options

- Options eliminated from consideration:
  - Maintaining one-way operation and utilizing existing space for a cycle track (Based on the Kick Off meeting in January 2012)
- Options considered, but eliminated from consideration:
  - Off road trail parallel to NJA – eliminated due to landscaping and property impacts
  - Cycle track in the middle of NJA – dropped due to transition requirements on either end of corridor
- Specific Bicycle Traffic Control Treatments considered, but eliminated:
  - Traffic signal-specific phasing at NYA/NJA

Alternative 3 – Pedestrian Options

- Bulb outs considered in all areas where dedicated parking is proposed 24/7 to minimize pedestrian crossings:
  - M Street in vicinity of NYA/NJA to calm traffic into community
  - Along NJA in front of Bible Way Temple south to L Street
- Geometric revisions considered to account for Design Vehicles and pedestrians
  - Revised Eye Street design to accommodate truck traffic to Wal Mart
  - Median extensions at NYA considered for refuge and additional crossings