DeKalb Avenue Traffic Calming and Bicycle Lane Lane Project

Presentation to Brooklyn Community Boards 2 & 3

NYC Department of Transportation Office of Alternate Modes
March 2008
Why are we here?

- Bicycle Fatality & Serious Injury Study – Improve Safety
- Mayor’s PlaNYC – A Greener Transportation Network
- 1997 Bicycle Master Plan
NYC DOT Bicycle Program

- 200 Mile, 3 Year Bicycle Route Commitment
- Targeting Areas of High Demand & Key Connections
- **Design Approach:**
  1. Study Best Practices
  2. Develop Innovative Designs for Constrained NYC Environment
  3. "Complete Streets" Design Philosophy
Neighborhood-Wide Bicycle Network

Implementation Timeline
Tompkins & Throop Aves 1997, 2003
DeKalb Ave (west of Cumberland) 2004
Willoughby Ave April 2007
Carlton Ave & Cumberland St May 2007
Central & Evergreen Aves (Bushwick) June 2007
Bedford Ave October 2007
**DeKalb Ave (2.6 miles)** May 2008
Franklin Ave August 2008
Commuter Corridor

- Bus Commutes to Downtown Brooklyn & Subway
- DeKalb is a Key Bus Route
  - 9th busiest in Brooklyn, 23rd busiest in NYC
- B38 running at or near capacity
  - 2.6% increase in ridership from 2005-2006 (compared to .6% increase in Brooklyn and citywide)
### Bicycle Demand

<table>
<thead>
<tr>
<th>Street</th>
<th>Cross-street 1</th>
<th>Cross-street 2</th>
<th>Cyclists**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willoughby Ave</td>
<td>Tompkins Ave</td>
<td>Marcy Ave</td>
<td>(97)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>250</td>
</tr>
<tr>
<td>Willoughby Ave</td>
<td>Clermont Ave</td>
<td>Adelphi St</td>
<td>(163)</td>
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<td></td>
<td></td>
<td>410</td>
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<tr>
<td>DeKalb Ave</td>
<td>Tompkins Ave</td>
<td>Marcy Ave</td>
<td>(138)</td>
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<td></td>
<td></td>
<td></td>
<td>350</td>
</tr>
<tr>
<td>DeKalb Ave</td>
<td>Bedford Ave</td>
<td>Skillman St</td>
<td>(132)</td>
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<td></td>
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<td>330</td>
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<td>Hall St</td>
<td>Washington Ave</td>
<td>(97)</td>
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<td>250</td>
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<tr>
<td>DeKalb Ave</td>
<td>Clermont Ave</td>
<td>Adelphi St</td>
<td>(263)</td>
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<td></td>
<td></td>
<td>660</td>
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</tbody>
</table>

* Cyclists counted from 7am-7pm

** Values in parenthesis are actual winter counts, values below are offset to estimate summer volumes
Bicycle Commuting

Ideal Conditions for Cycling
- High Residential Density
- Lack of Subway Access
- Low Car Ownership
  - 7 of 10 households are car-free (Fort Greene, Clinton Hill and Bed-Stuy)*
- Pre-automobile Era Neighborhoods

Bicycle Transportation
- Flexible
  - No schedule or route
  - Ride to Subway or Work
- Fast
  - Avoid traffic
- Inexpensive
  - No fee for bicycle parking

*2000 Census Data, Long Form
Existing Conditions

- 2 Travel Lanes
- 2 Parking Lanes
- No Dedicated Cycling Space: Uncomfortable Cycling Environment
- Retail Frontages Allow All Day Parking: Double Parking for Loading
Design Approach for a Complete DeKalb

1. Creating Dedicated Cycling Space
2. Improving Intersection Safety
3. Traffic Calming for All Street Users
4. Providing Safe Access
5. Maintaining Multimodal Traffic Flow

Planned Design: Buffered Bicycle Lane
1. Creating Dedicated Cycling Space

Existing Condition

Cyclists Ride in “Door Zone”
- Dangerously close passing
- Threat of dooring
- Pedestrians dart out from in between cars

-OR-

Cyclists Ride in Moving Lane
- Honking
- Lane changes
- Aggressive driving

Planned Condition

Cyclists Ride in dedicated space
- Bike lane and buffer provide safe passing distance
- 9’ parking lane + ½ of bike lane puts cyclists out of door zone
- Organizes street use and calms driver behavior
2. Improving Intersection Safety

Turning Conflicts at Intersections are Problematic
- 9 of 10 NYC fatalities
- 8 of 10 NYC serious injuries

Existing Conditions
- No Guidance at Intersections

Planned Conditions
- Bicycle lanes increase driver’s visibility and awareness of cyclists
- Intersection markings highlight potential conflict
3. Traffic Calming for All Street Users

**Existing Conditions**
Excess road space in off-peak hours
- Speeding
- Reckless driving/unpredictable lane changes

**Planned Conditions**
Design matches capacity to need
- Fewer opportunities to speed
  - Lead vehicle sets pace
- Constrained space calms traffic
4. Providing Safe Access

Existing Conditions

• All Day Parking at Retail and Other Active Land Uses Leads to Double Parking

Issues created by double parking

• Blocks Traffic Including Planned Bike Lane
• Causes Unanticipated Lane Changes
• Poor Access to Businesses

Planned Conditions

• Time limited parking for loading and retail use as needed
5. Maintaining Multimodal Traffic Flow

Context Sensitive Design

- Different design approach for long blocks and short blocks
Existing Conditions: Volumes

![Graph showing traffic volumes at different times of the day.]

- Malcolm X Blvd to Stuyvesant Ave
- Franklin Ave to Classon Ave
- Clermont Ave to Adelphi St

Design Tailored to Maintain Commuter Traffic Flows
Planned Design

Long Blocks – Right Turns

Existing Configuration

“Long Block” Plan at Intersections

Peak Period (AM, PM) Moving Lane
Planned Design

Long Blocks – Left Turns

Existing Configuration

“Long Block” Plan at Intersections
Planned Design

Short Blocks

Existing Configuration

“Short Block” Plan

Peak Period (AM, PM) Moving Lane
Parking Impacts

Peak Hour Parking Restrictions (~130 spaces, M-F 7-10a & 4-7p)
Full-time Parking Restrictions (~60 spaces)
### Design Approach for a Complete DeKalb

1. Creating Dedicated **Cycling Space**  
   - Bicycle Lane with Buffer

2. Improving **Intersection Safety**  
   - Lane Markings Through Intersection

3. Traffic Calming for **All Street Users**  
   - Design Capacity Matches Need

4. Providing **Safe Access**  
   - Time Limited Parking

5. Maintaining **Multimodal Traffic Flow**  
   - Peak Period Moving Lanes

![Map Diagram of DeKalb Avenue and Surrounding Streets]

- Red lines represent the proposed routes.
- Blue lines indicate existing infrastructure.
- Green areas denote protected cycling zones.

Legend:
- **→** Proposed construction changes.
Next Steps

Refine Plans Based on Community Input

• Feedback on Curbside Access
• Identify Land Uses with Curbside Access Needs