DeKalb Avenue Traffic Calming and Bicycle Lane Project

Presentation to Brooklyn
Community Boards 2 & 3

NEW YORK CITY DOT

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

12-hour* Bicycle Counts on DeKalb and Willoughby Avenues

Street	Cross-street 1	Cross-street 2	Cyclists**
Willoughby Ave	Tompkins Ave	Marcy Ave	(97)
			250
Willoughby Ave	Clermont Ave	Adelphi St	(163)
			410
DeKalb Ave	Tompkins Ave	Marcy Ave	(138)
			350
DeKalb Ave	Bedford Ave	Skillman St	(132)
			330
DeKalb Ave	Hall St	Washington Ave	(97)
			250
DeKalb Ave	Clermont Ave	Adelphi St	(263)
			660

* 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**

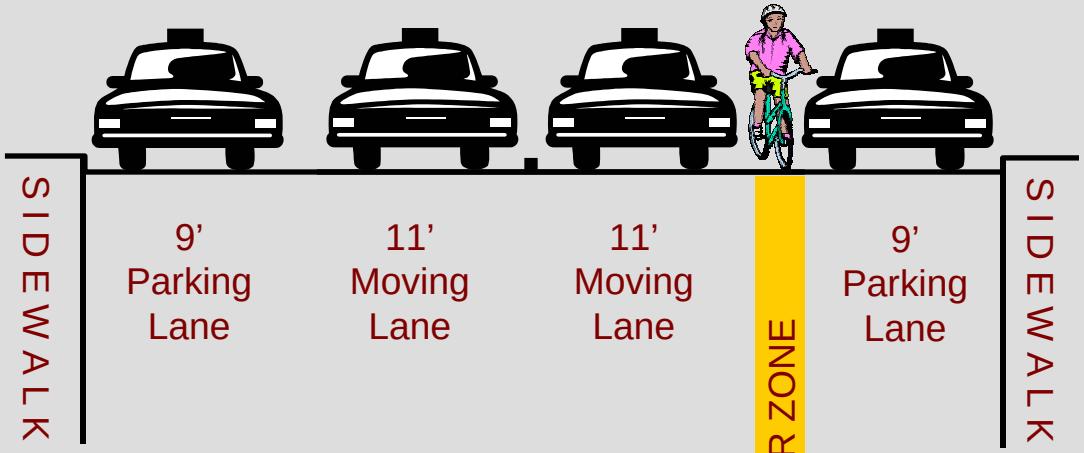
Design Approach for a Complete DeKalb

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”

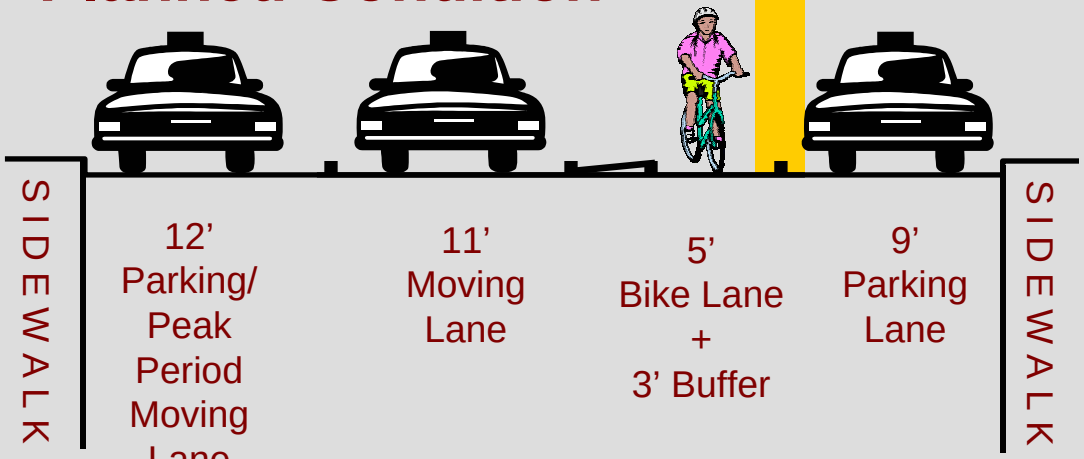
- Dangerously close passing
- Threat of dooring
- Pedestrians dart out from in between cars

-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

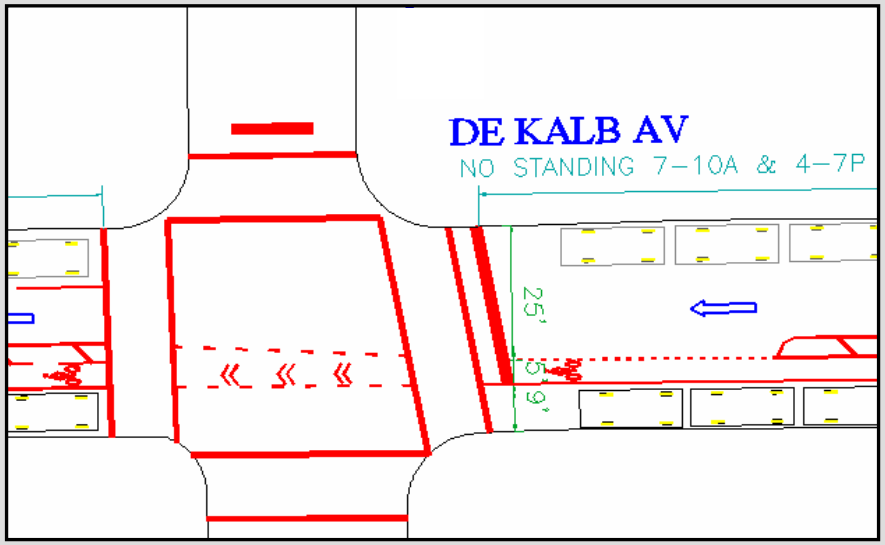
- 9 of 10 NYC fatalities
- 8 of 10 NYC serious injuries

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

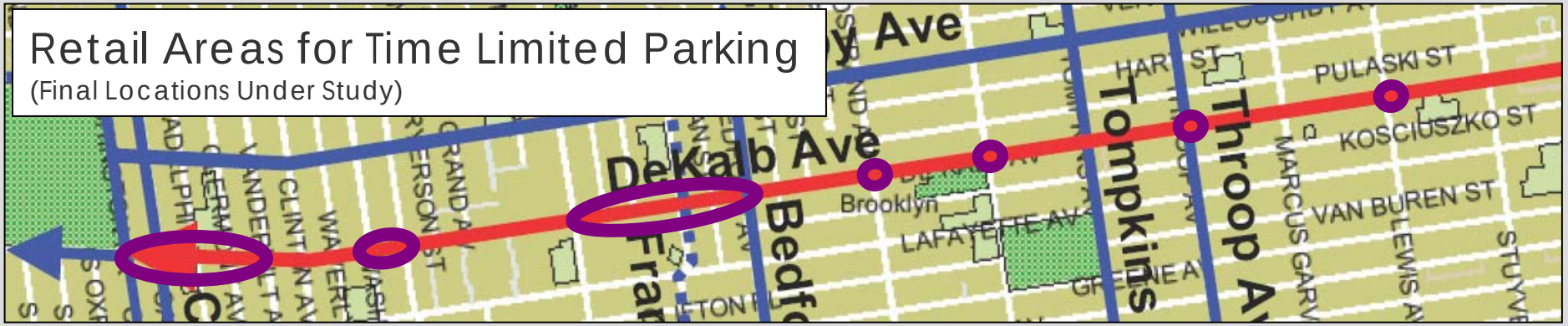
- All Day Parking at Retail and Other Active Land Uses Leads to Double Parking

  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

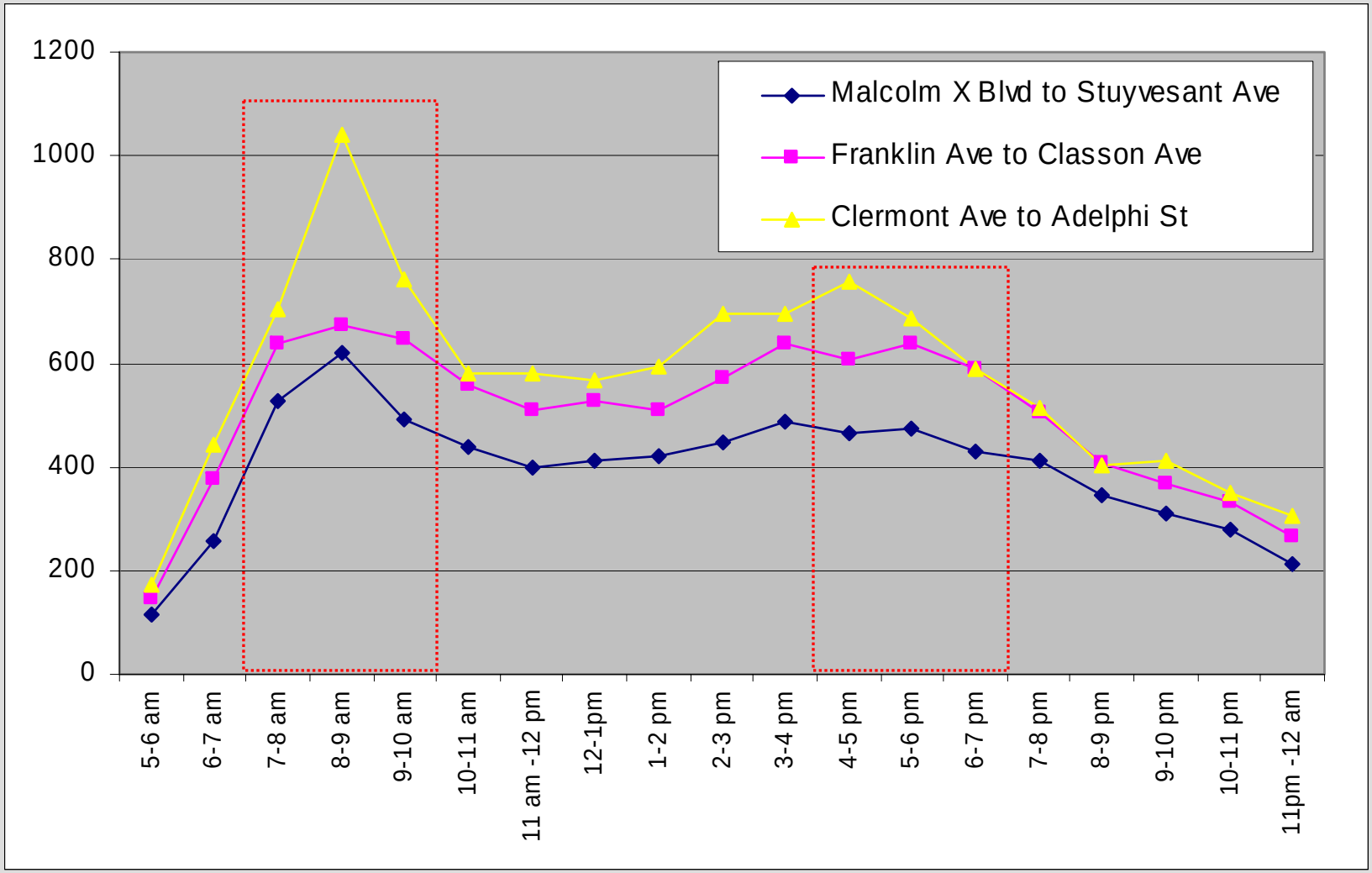


5. Maintaining Multimodal Traffic Flow

Context Sensitive Design

- Different design approach for long blocks and short blocks

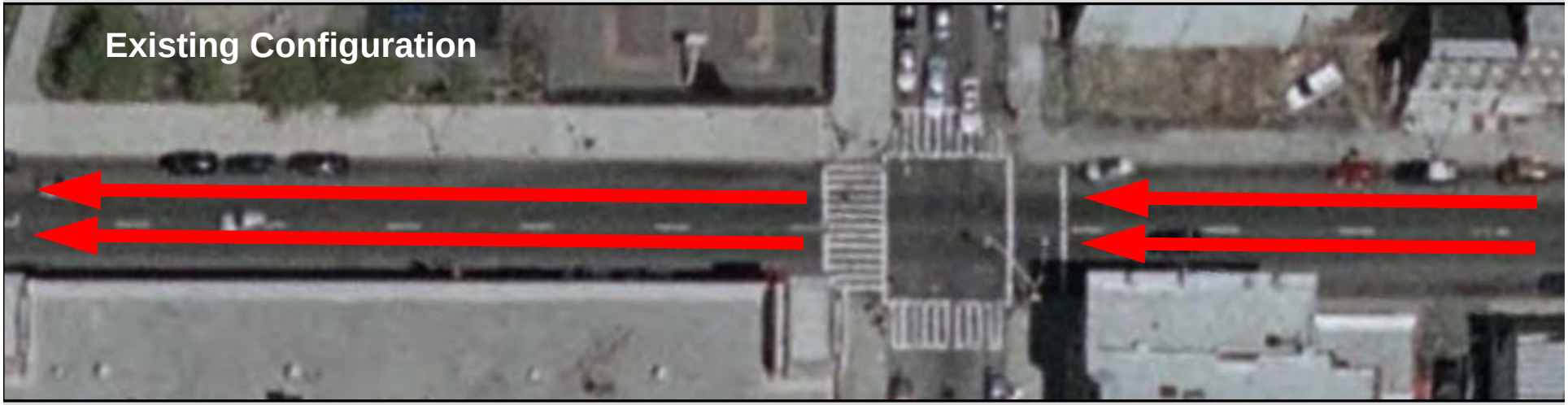
Existing Conditions: Volumes

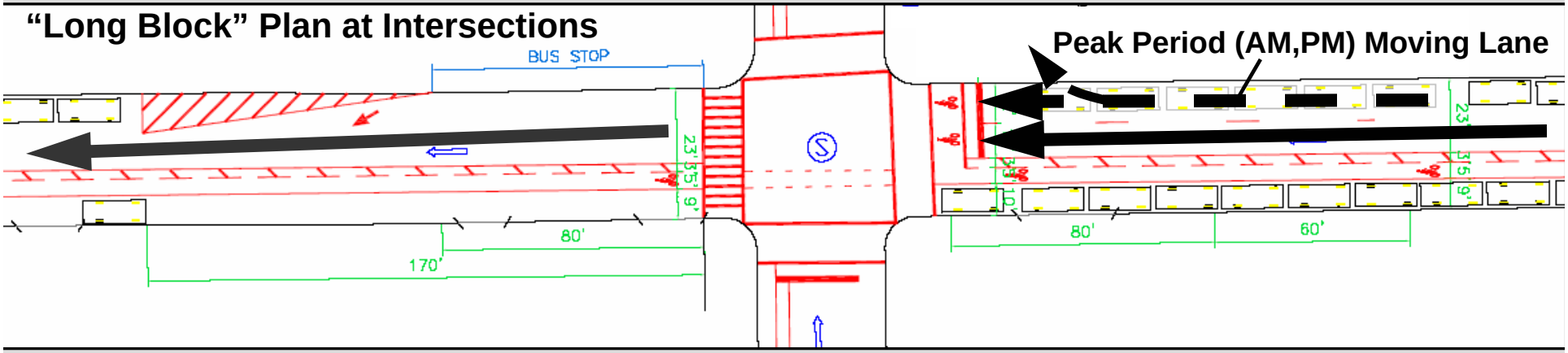


Design Tailored to Maintain Commuter Traffic Flows

Planned Design

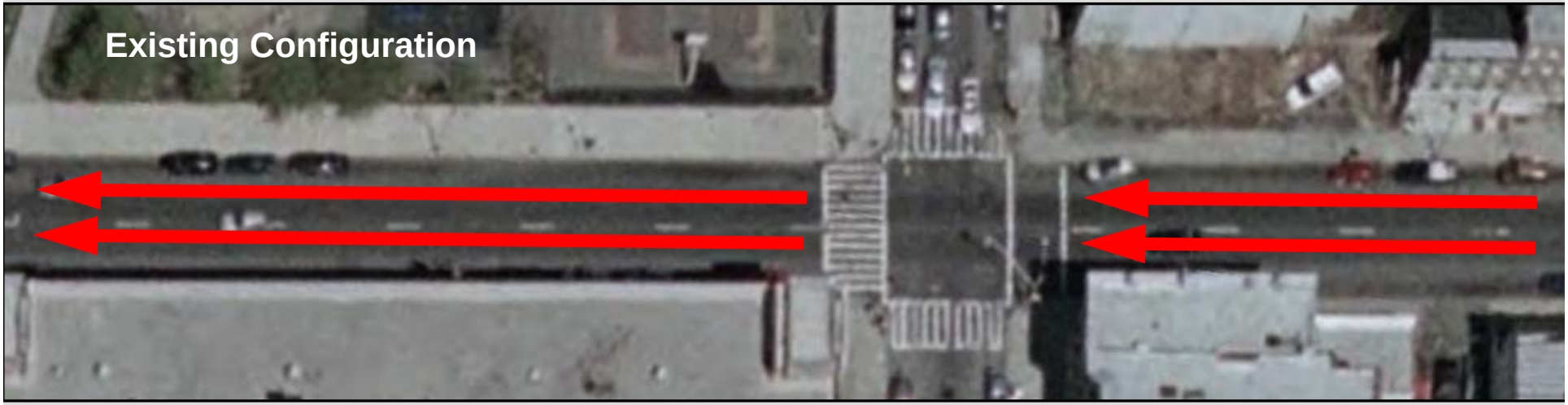
Long Blocks – Right Turns

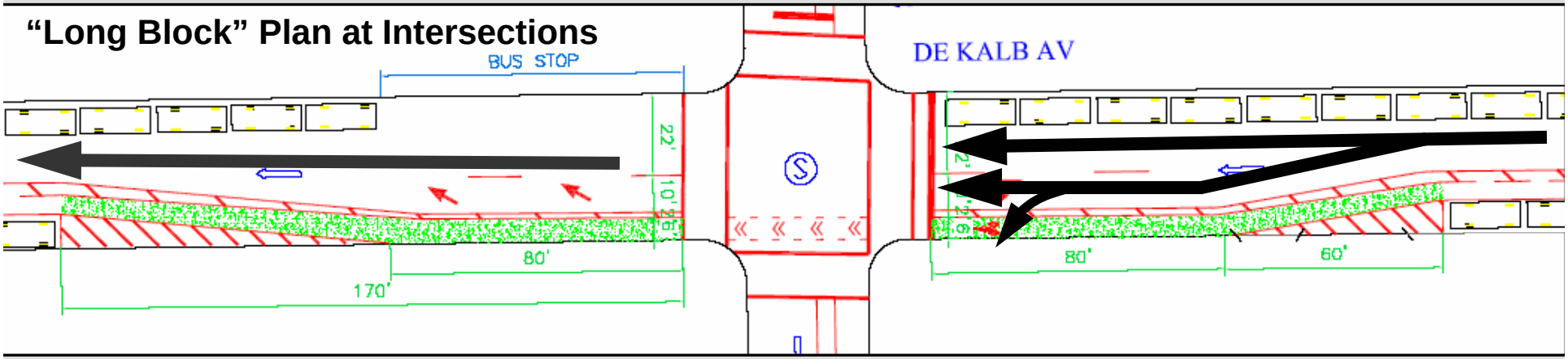




Planned Design

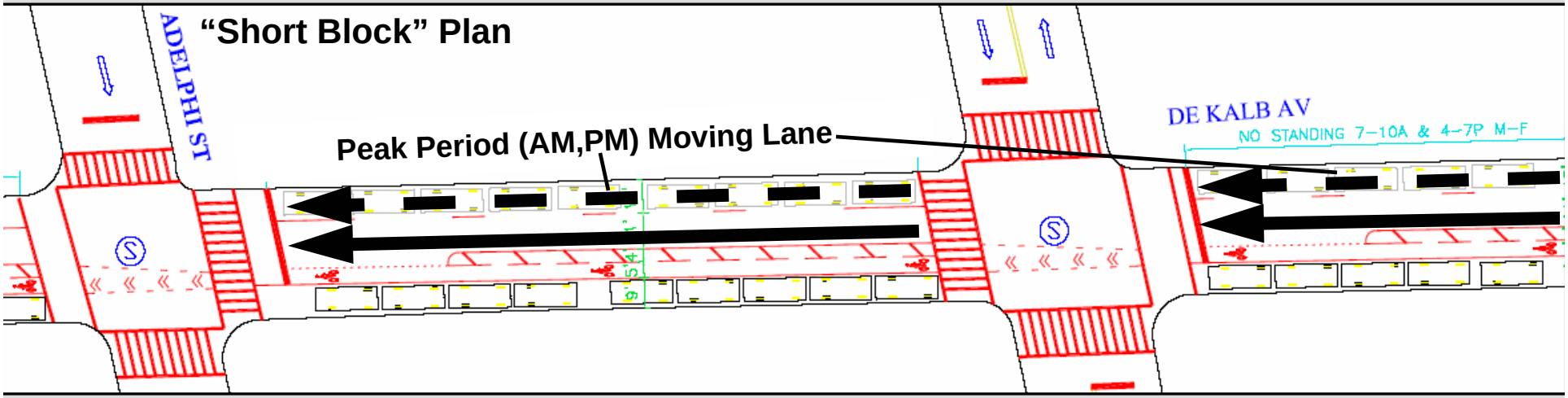
Long Blocks – Left Turns



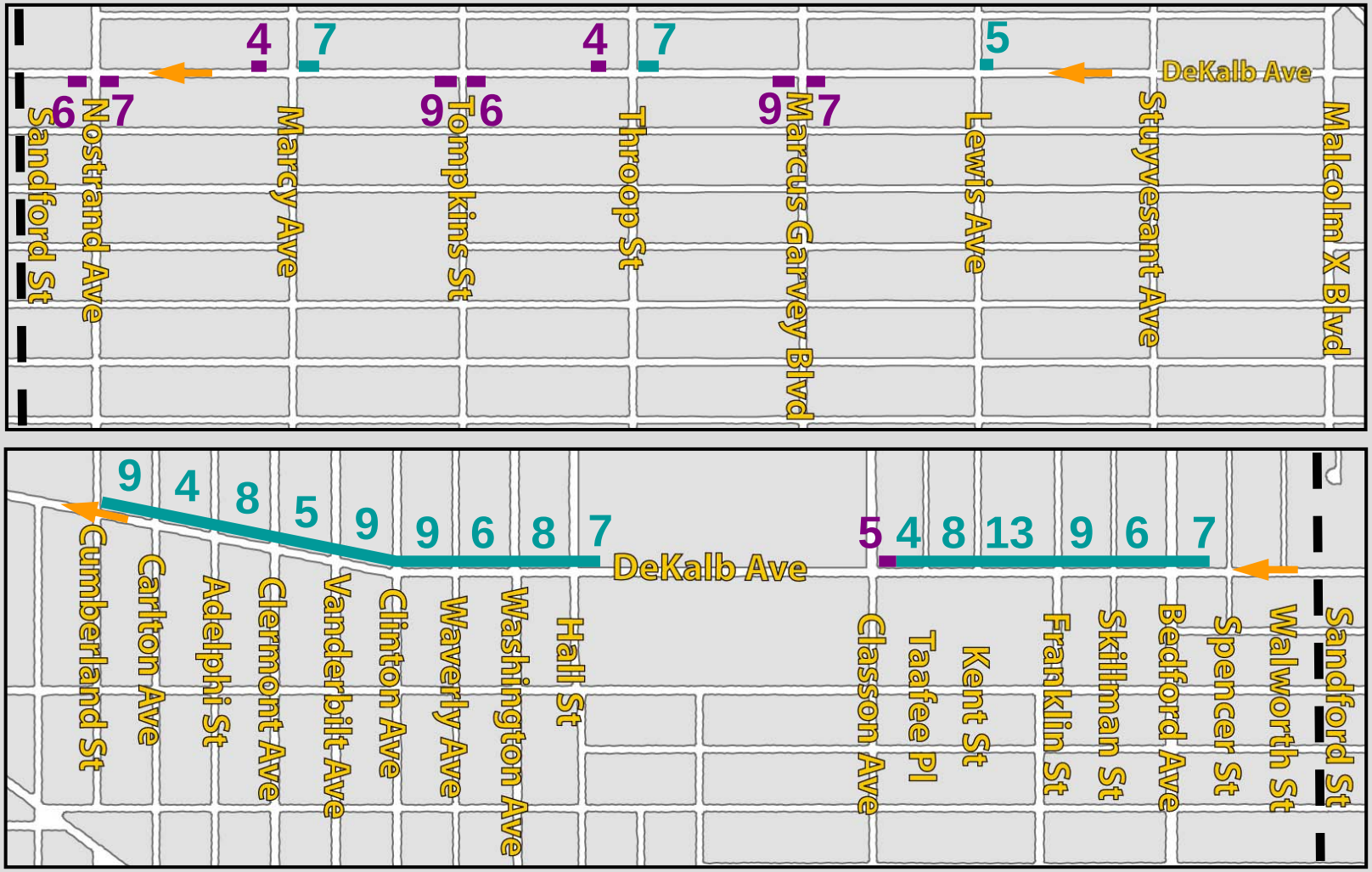


Planned Design

Short Blocks



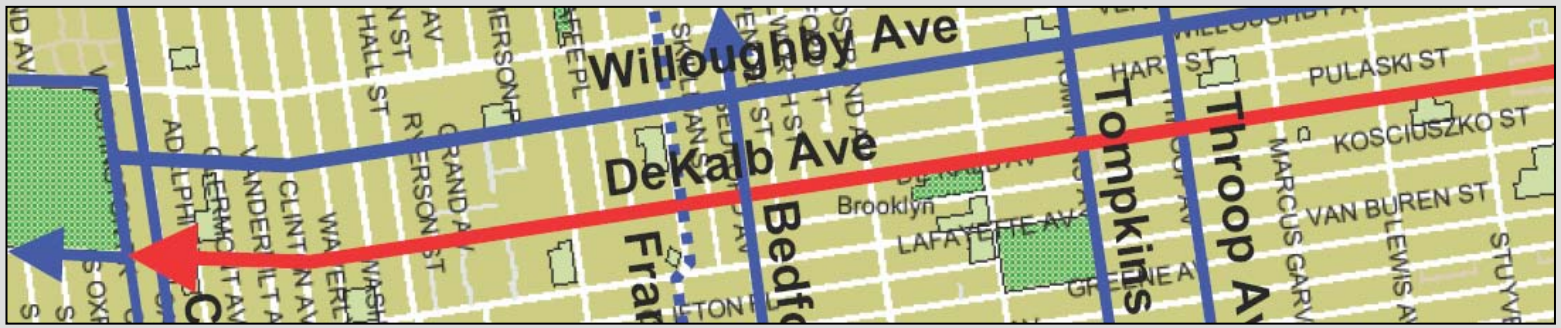
Parking Impacts



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



Next Steps

Refine Plans Based on Community Input

- **Feedback on Curbside Access**
- **Identify Land Uses with Curbside Access Needs**