Lincoln Way Multimodal Safety and Operations Study

City and University Summary Presentation

February 27, 2018











Agenda

- Introductions
- Study Overview:
 - Phase 1 Discovery
 - Phase 2 Improvement Recommendations
- Key Recommendations:
 - Corridor Signal Timing
 - Physical Intersection Changes:
 - Welch Avenue
 - Stanton Avenue
- Wrap up/Discussion





Study Limits







Corridor Study Work Plan - Purpose

- Are there Safety/Operations Concerns?
- Do Current Physical Features/ Conditions Contribute?
- If Yes, Are there Options to Address:
 - Adding Time to Travel Negative
- Supports More Global Efforts:
 - Long Range Transportation Plan
 - Transit Redesign
 - Complete Streets Policy Development/ Application

Collect Corridor Data:

- Pedestrian Counts
- Pedestrian Signal Compliance
- Vehicle Classification Counts
- Lighting Levels
- Sight Distance

Corridor Analysis:

- Pedestrian Volume across:
- Lincoln WayCross Routes
- Ped Compliance with
- Signals
 Pedestrian Cycle
 Operations
- Document Conflicts (Including Severity)
- Lighting Level Vs. Design Standards:
- IntersectionsSegments

Document Known Changes to Current:

- Signal Modifications
- Lighting Modifications
- New Development:
- University
- ResidentialCommercial
- Lane/Median Projects

Define Logical Effective Alternatives:

- Signal Phases/Timing
- Lanes
- Grade Separated Crossings
- Medians:
 - Width
- LandscapingFencing/Barriers
- Overhead Lighting
- Education/Refreshers
- Information Signs

End of Phase I

Prepare Implementation Plan

- Sign Timing/Phasing
- Overhead Lighting
- Geometrics
- Streetscaping



Evaluate Logical Alternatives:

- Effectiveness
- Cost
- Time to Implement

LINCOLN

Support





Study Summary

Phase 1 Phase 2

Discovery

- NO Design Deficiencies
- NO Sight Distance Issues
- Pedestrian Signal Compliance Issue Throughout Corridor
- Welch Avenue:
 - Elevated Severity Veh-Ped Crashes
- Stanton Avenue:
 - Elevated Crash Rate (Veh-Veh)
 - Ped Volume Unmarked Crosswalk
- Sheldon Avenue:
 - Elevated Crash Rate (Veh-Veh)

Strategies/ Screening

- Education
- Geometric Changes
- Timing/Operations Changes

Effectiveness

- Safety
- Compliance
- Operations
- Access

Support

Cost

Recommendations

- Small Steps:
 - Update Signal Timing
 - Welch LPI
 - Stanton Xwalk
- Larger Steps:
 - Welch Median Changes
 - Median Barrier at Stanton

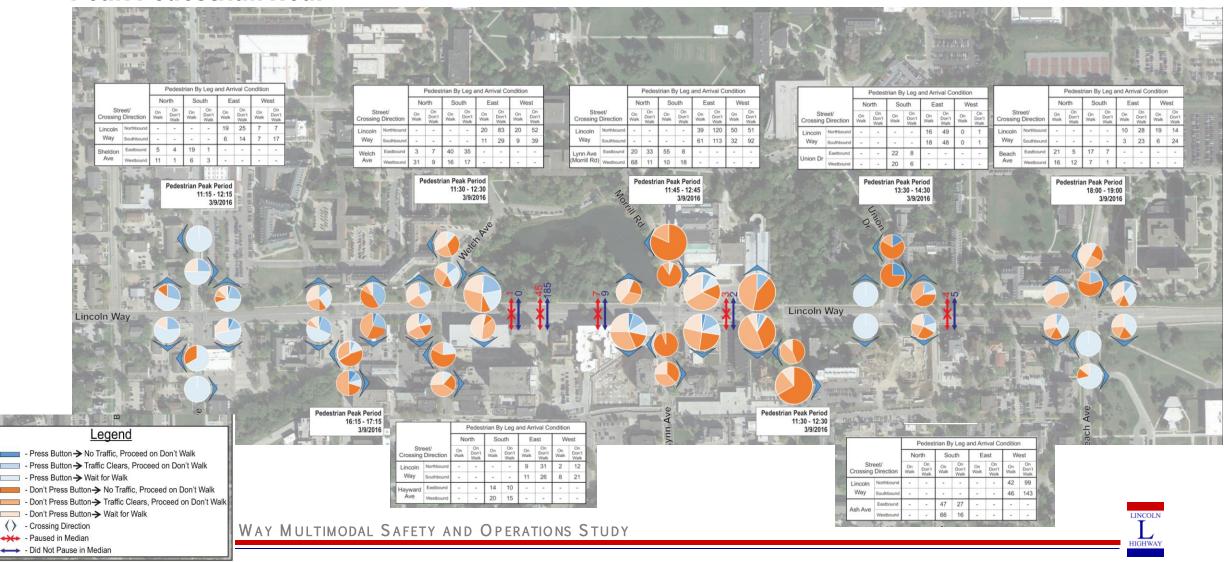
Engagement - Outreach

Survey • Working Group • Administration Briefings • Public Meeting



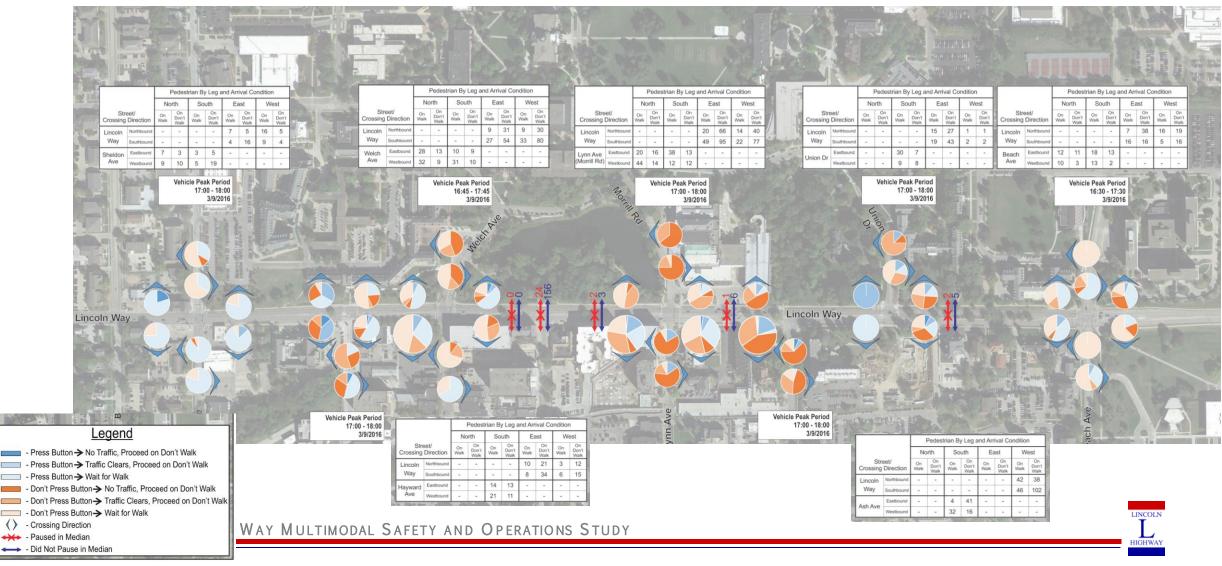
Composite – Ped Compliance and Mid-Block Compliance

Peak Pedestrian Hour



Composite – Ped Compliance and Mid-Block Compliance

Peak Vehicle Hour



Countermeasures to Address Concerns



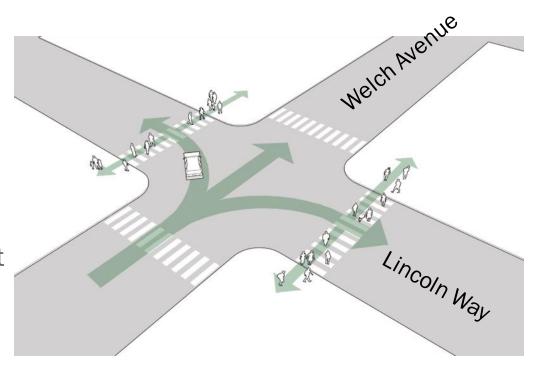
- Themes:
 - Sensitive to Time
 - Complement Travel Pattern
 - Reduce Conflict Points:
 - Spatial Changes
 - Temporal Changes
- Strategies:
 - Change Signal Operations:
 - Improve Efficiency
 - Separate Pedestrians Vehicles
 - Construction
 - Education
 - Replace Equipment





Traffic Operations Recommendations

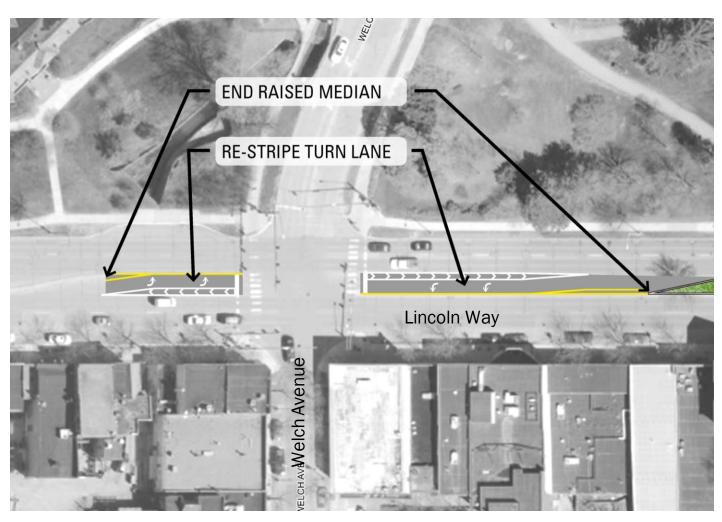
- Update Corridor Signal Timing:
 - Reflect Current Traffic
 - Provide Recommendations for Monitoring and Updating
- Implement Leading Pedestrian Intervals (LPI):
 - Peds get WALK Before Vehicles get Green
 - Pedestrians Establish Position ahead of Turning Traffic)
 - Length Allow pedestrian to Cross ONE Lane of Traffic
 - Start with Welch Avenue See Benefit, Implement at Others





Welch Avenue – Remove Raised Median

- Eliminate ~ 90 Feet of Median
- East and West Sides
- Relocate Median Width between Inside Through Lane and Left Turn Lane
- Improve Compliance ~ 18
 Percent

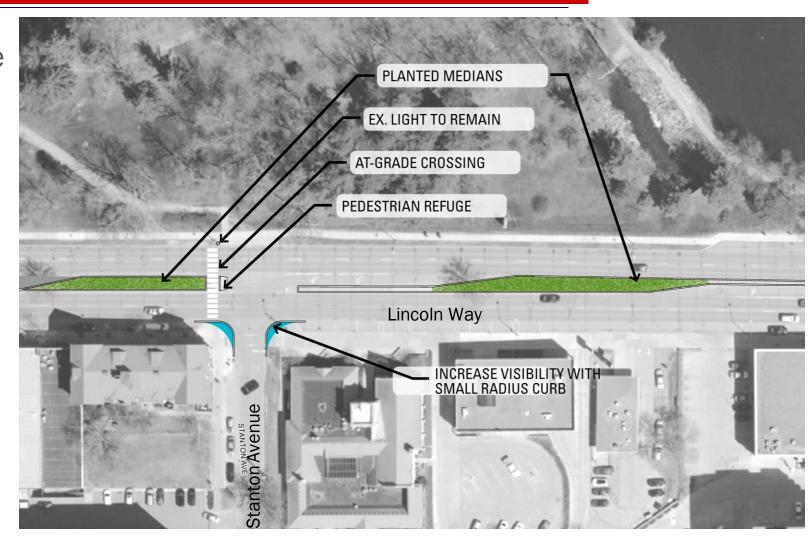






Lincoln Way at Stanton Avenue – Recommendation

- Barrier Needed to Reduce Pedestrian Activity
- Barrier is Intrusive
- Barrier is Expensive
- Improve the Current Condition:
 - Add Painted Crosswalk Visibility
 - Make ADA Compliant
 - Reduce Curb Radii (Secondary)

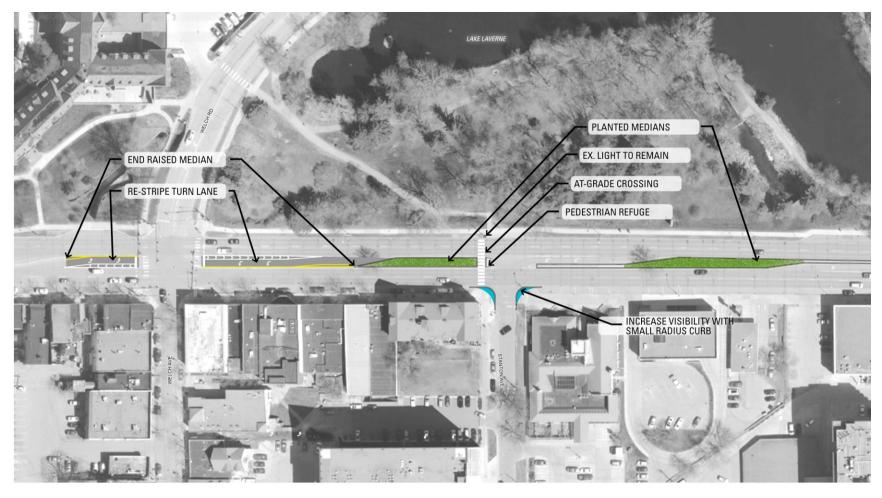






Welch and Stanton Avenues – Recommendation

- All Ideas Can be Transferred to Other Locations in the Corridor
- Consider in Future if:
 - Effective
 - Accepted







Traffic Recommendations – Update Signal Timing

- Update Intersection and Corridor Signal Timing:
 - Reflect Current Traffic
 - Provide Recommendations for Monitoring and Updating
- Benefits:



















All Recommendations

- Update Intersection and Corridor Signal Timing:
- Welch Avenue Left Turn Median Removal
- Stanton Marked Crosswalk
- Benefits:





















Preliminary Cost Estimates

Location	Description		Low Cost	High Cost
Welch Avenue	Remove concrete median Reconstruct concrete median nose Repave	Repaint crosswalk Restripe turn lane	\$8,500	\$10,000
Stanton Avenue – Cross Walk	Remove concrete median Repave Patch median curb	Repaint crosswalk Curb ramps Curbline modifications	\$12,000	\$15,000
Stanton Avenue – Median Closure/ Barrier	Remove concrete median Remove base material Add soil	Patch median curb landscaping Black picket-style fence in median	\$100,000	\$125,000
Corridor Retiming	Implement signal cycle length, phasing plan and offset recommendations from study.		Minimal – Staff time only. Plans from study readily implementable	





Wrap Up

- Final Questions/Discussion
- Follow-up?









