
Lincoln Way Multimodal Safety and Operations Study

City and University Summary Presentation

February 27, 2018



Agenda

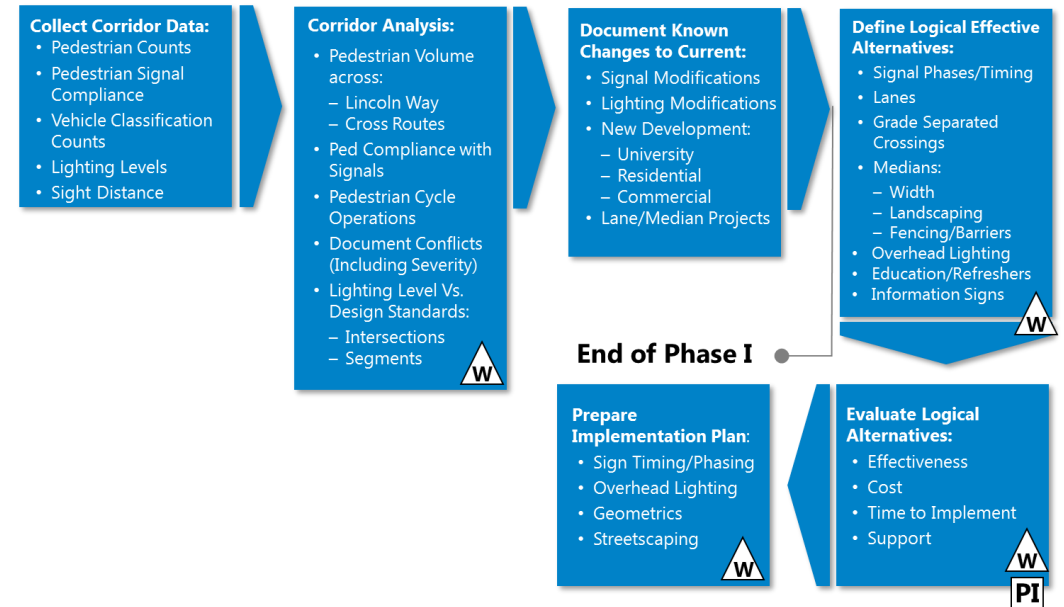
- Introductions
- Study Overview:
 - Phase 1 - Discovery
 - Phase 2 – Improvement Recommendations
- Key Recommendations:
 - Corridor Signal Timing
 - Physical Intersection Changes:
 - Welch Avenue
 - Stanton Avenue
- Wrap up/Discussion

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



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

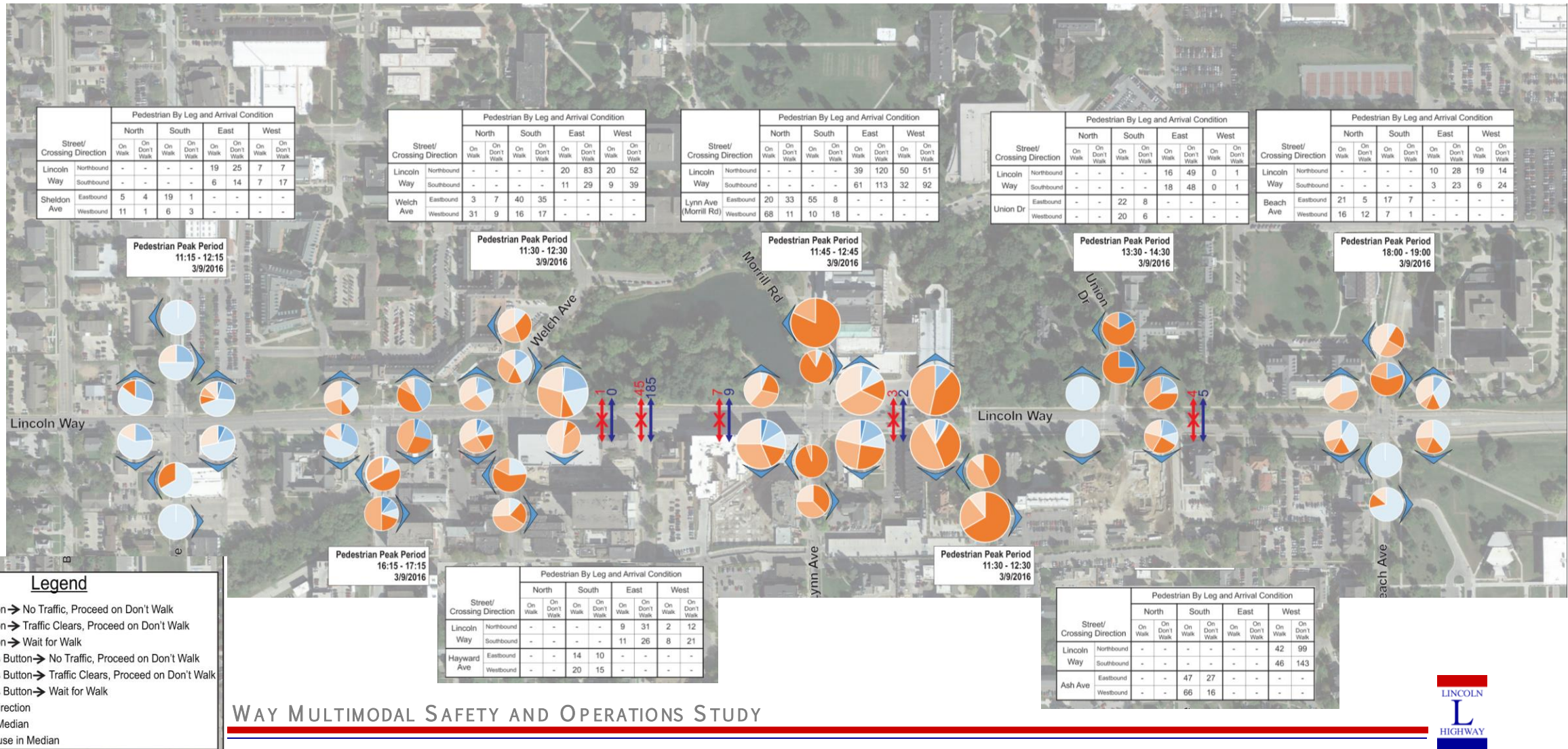
- Small Steps:
 - Update Signal Timing
 - Welch LPI
 - Stanton Xwalk
- Larger Steps:
 - Welch Median Changes
 - Median Barrier at Stanton

Engagement - Outreach

- Survey
- Working Group
- Administration Briefings
- Public Meeting

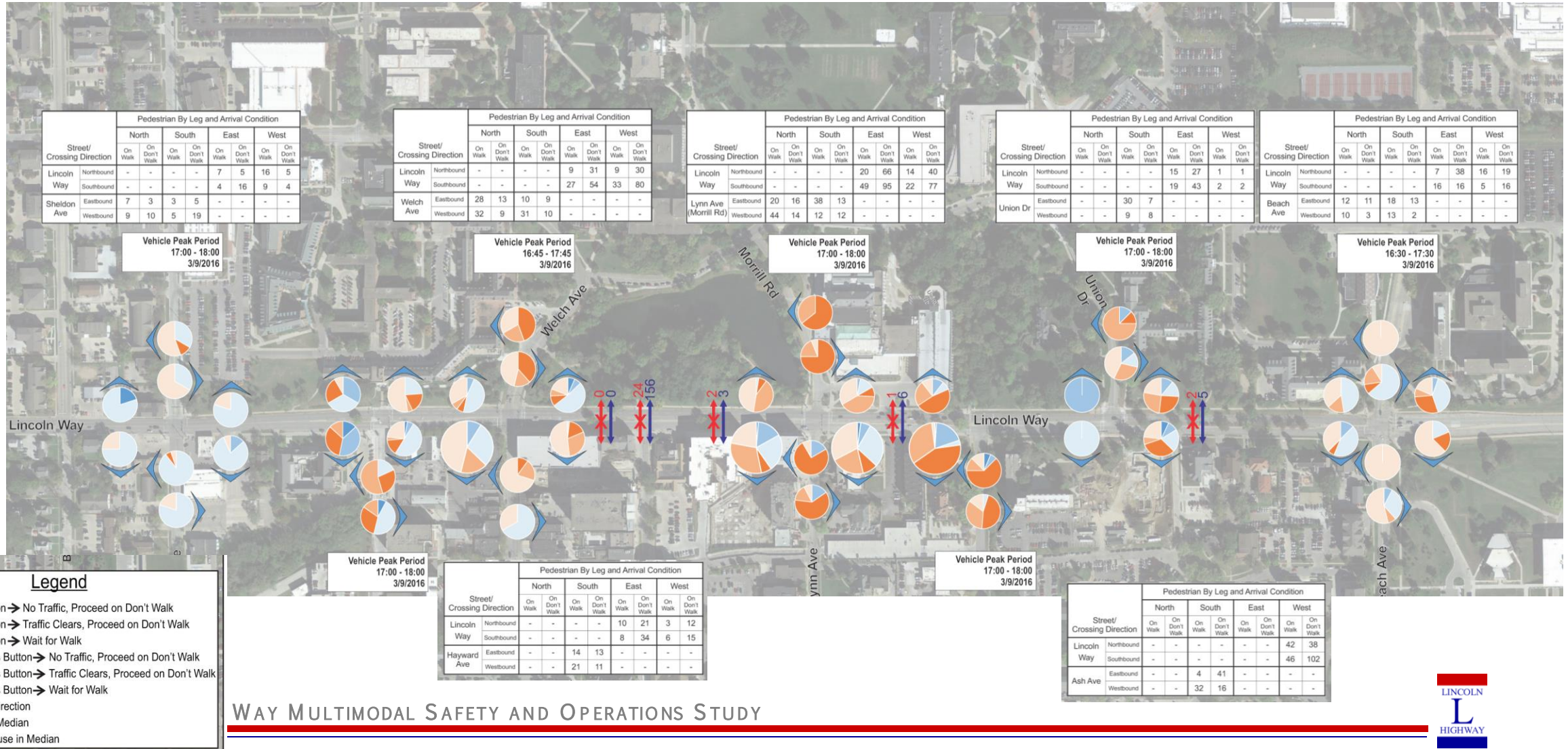
Composite – Ped Compliance and Mid-Block Compliance

Peak Pedestrian Hour

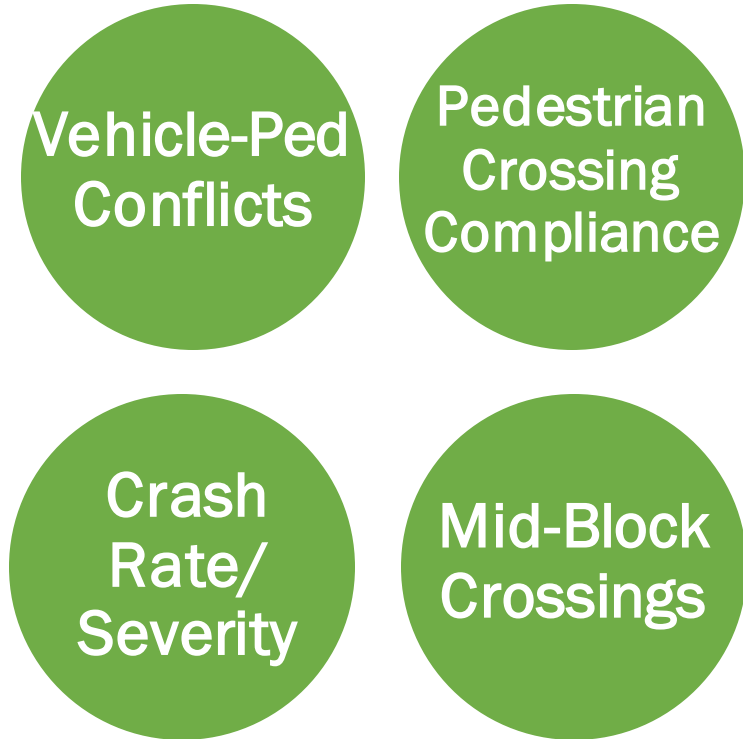


Composite – Ped Compliance and Mid-Block Compliance

Peak Vehicle Hour



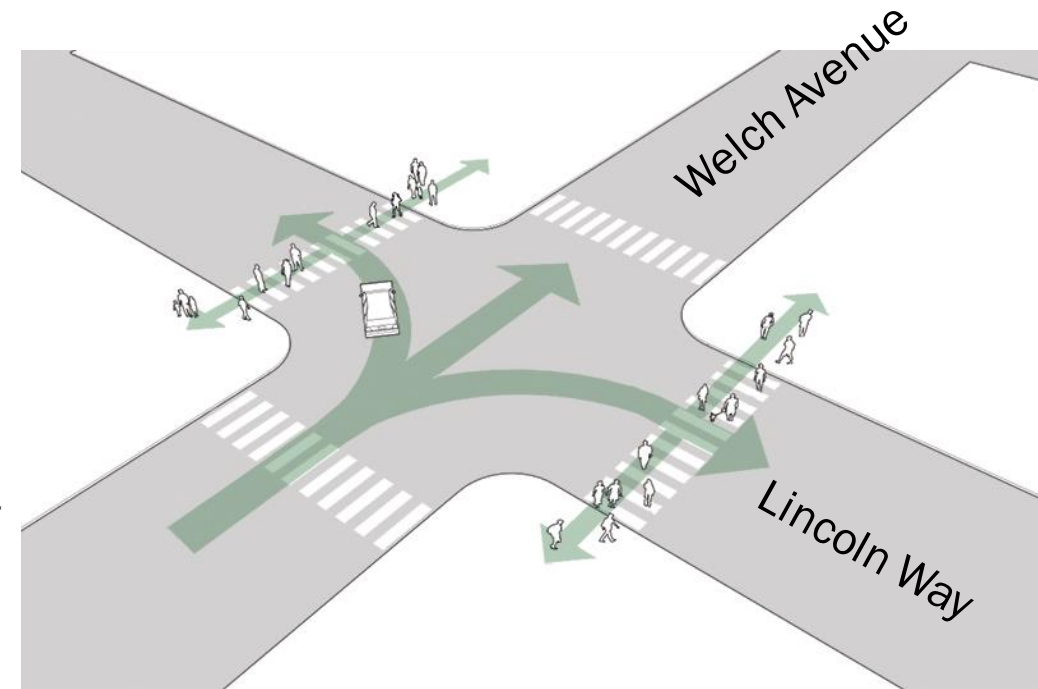
Countermeasures to Address Concerns



- 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

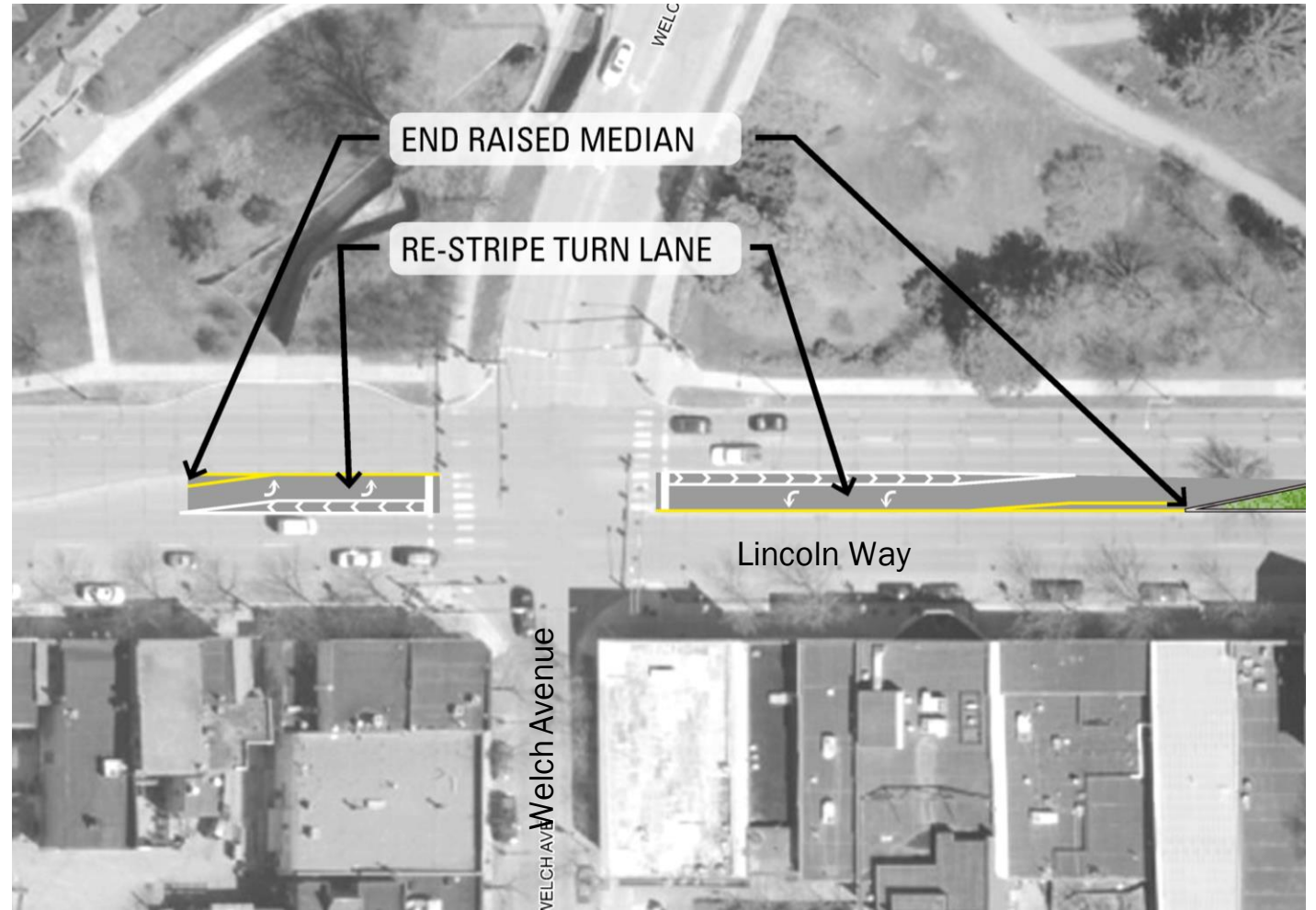
Traffic Operations Recommendations

- 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



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:



↓ 20-23%
VEHICLE DELAY



↓ 10-23%
PEDESTRIAN
DELAY



↓ 18%
VEHICLE STOPS



↓ Up to 15%
CORRIDOR
TRAVEL TIME



No Change
SEGMENT
SPEED



↓ 59%
VEHICLE-PED
CRASHES



↓ 64%
SEVERE
CRASHES

All Recommendations

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



↓ 20-23%
VEHICLE DELAY



↓ 10-23%
PEDESTRIAN DELAY



↓ 18%
VEHICLE STOPS



↑ 18%
PEDESTRIAN COMPLIANCE



↓ Up to 15%
CORRIDOR TRAVEL TIME



No Change
SEGMENT SPEED



↓ 59%
VEHICLE-PED CRASHES



↓ 64%
SEVERE CRASHES

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 Curblines 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?

