Route 30 in St. Louis - Impact of Road Diets with Signal Optimization
Presenters

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01 Route 30 Basics
02 What was Done?
03 Results
Route 30 Basics
Route 30 Corridor in St. Louis, MO

- 6 MILES
- 29 SIGNALIZED INTERSECTIONS
- ODD CONFIGURATIONS
- “ROAD DIET? WHAT ROAD DIET?”
MO Route 30 (Gravois Road)

- 29 intersections with signals
- 37 separate signalized intersections
Route 30 Corridor in St. Louis, MO
What was Done?
WHAT WAS DONE?
ROAD DIET (WAIT, WHAT?)

• 2016-2017
• NEW OVERLAY
• CURBS, ISLANDS
• FLASHING PED
• BIKE LANES
• TURN LANES
• AND LOTS OF STRIPING…
WHAT WAS DONE?
ROAD DIET
Route 30 Corridor in St. Louis, MO - BEFORE
Route 30 Corridor in St. Louis, MO - AFTER
WHAT WAS DONE?
ROAD DIET
Route 30 Corridor in St. Louis, MO - BEFORE
Route 30 Corridor in St. Louis, MO - AFTER
Route 30 Corridor in St. Louis, MO - BEFORE
Route 30 Corridor in St. Louis, MO - AFTER
Route 30 Corridor in St. Louis, MO - BEFORE
Route 30 Corridor in St. Louis, MO - AFTER
Route 30 Corridor in St. Louis, MO - BEFORE
Route 30 Corridor in St. Louis, MO - AFTER
WHAT WAS DONE?
SIGNAL OPTIMIZATION

- Optimize efficiency
- MoDOT’s goal:
  - Maximize mainline green bands
  - Minimize intersection delays
- Data Collection post Road Diet
- Optimization using Synchro
- Implemented May 2018
WHAT WAS DONE?

SIGNAL OPTIMIZATION
Results
Public Reaction – MoDOT
• After optimization complaints decreased regarding signal coordination
• Drive thru commuters still like more vehicle lanes/locals prefer more multi-modal ‘road for all’
• Elected officials want road diet for MO 115 citing traffic calming, improved efficiency
PROJECT METRICS

- Average Speed
  - Road Diet: +13%
  - Optimization: +8%
- Travel Time
  - Road Diet: -12%
  - Optimization: -7%
2016 ADWT vs. 2018 ADWT

MO Route 30 Count Locations
- Morganford Road
- Hydraulic Avenue
- West of Iowa
- West of Lemp
- East of I-55 Ramps

PROJECT METRICS
Anecdotal Results:
• Bikers like it
• Commuters? Mixed
• Businesses - Deliveries easier with turn lanes
• Speed differentials decreased
• Annoyance factor decreased with center turn lanes
Conclusions

- Road Diets not as bad as people assume
- Signal Optimization is good... even better with a Road Diet
- Throughput: +5%
- Average speed: +21%
- Travel Time: -18%
- Applying to other routes