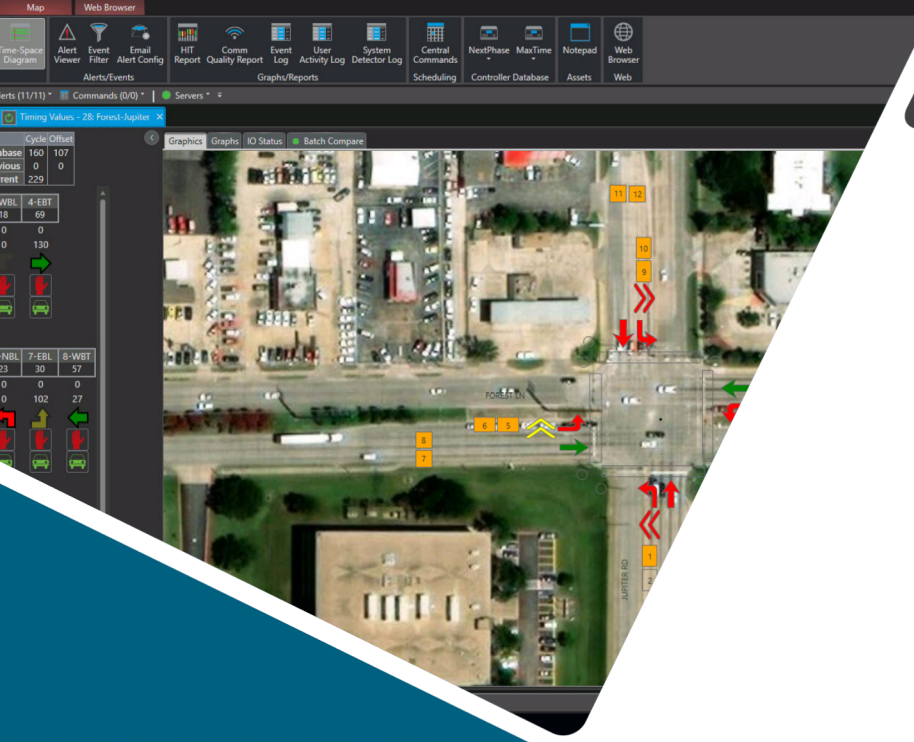

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Kimley»Horn

SMART CITIES TECHNOLOGY FORUM

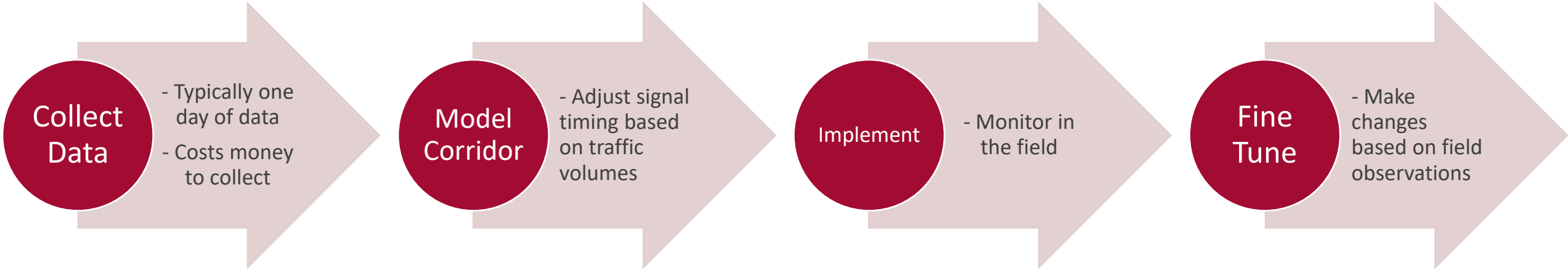
ATSPM & Signal Retiming

»KITS
A Kimley-Horn Software Solution

»Kadence
A Kimley-Horn Software Solution

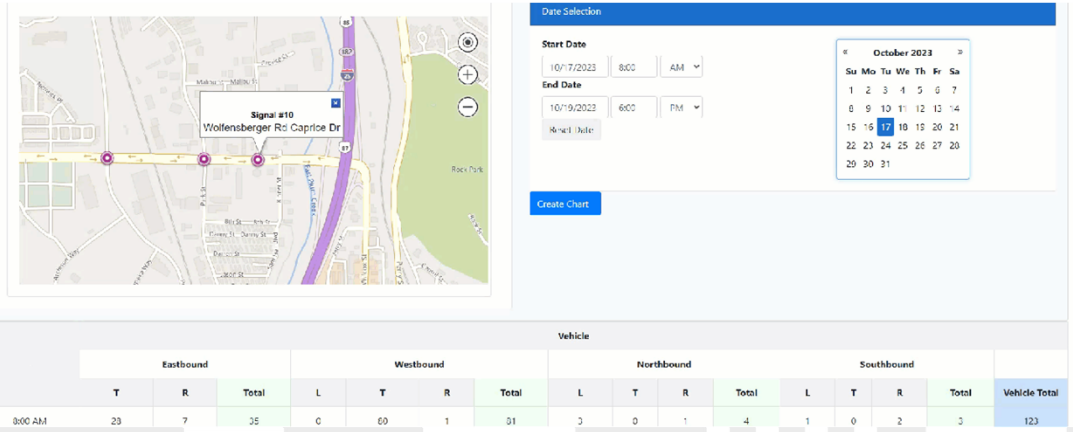
»Traction
A Kimley-Horn Software Solution

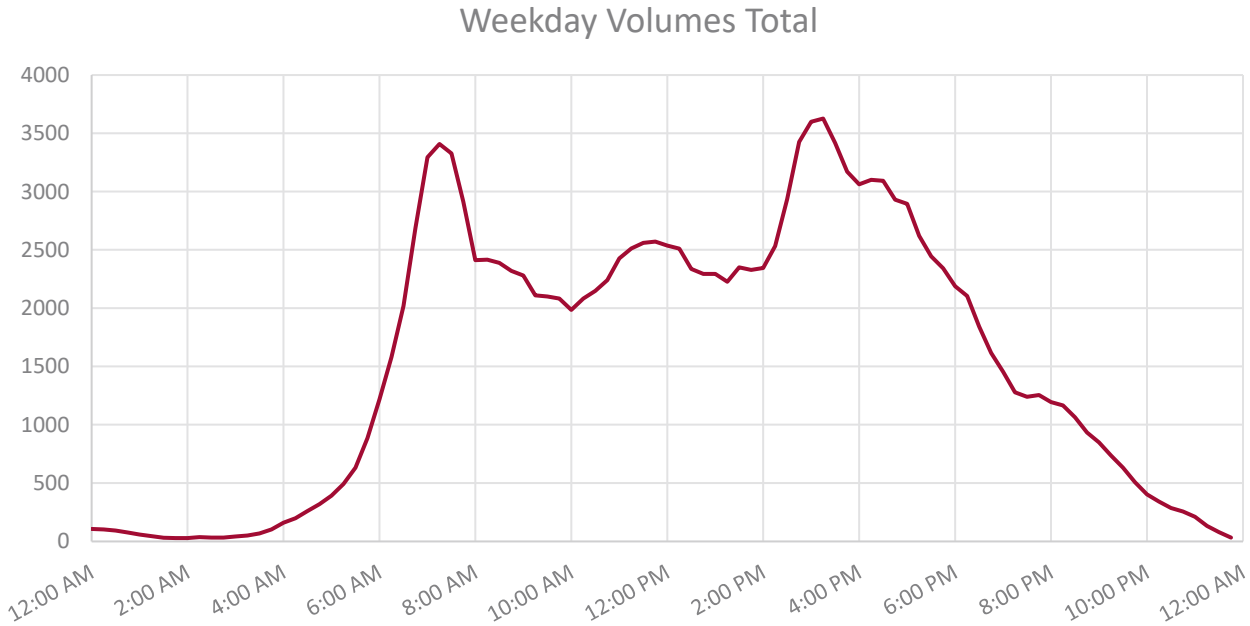
Traditional Retiming



ATSPM for Signal Timing

- Unlimited count data available
- Metrics helpful for decision making
  - Split Failure
  - Arrivals on Green
  - Delay





Pros and Cons

ATSPM
Pros
Unlimited data
Data driven decisions
Easily tracked improvements
Cons
“Information overload”
Requires configuration

Traditional Retiming
Pros
Less analysis of data
Established Process
Cons
Limited, costly data collection
Engineering judgement based

Configuration Requirements/Reports

- Detectors must be configured correctly

Good data → **Good results**

- Certain reports necessary
  - Turning Movement Counts
  - Arrival on Green
  - Purdue Split Failure

Results

Plum Creek Parkway Performance Metric Summary

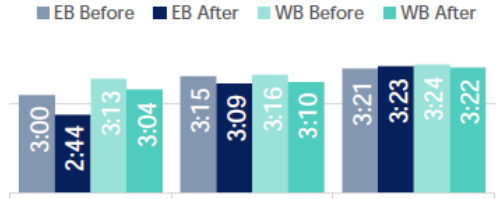
Project Achievements (Annual)

10,447
VEHICLE HOURS
of travel time saved

$200,662
time-value equivalent user savings

50,605 LBS
reduction in pollutant emission

Travel Time Savings



*Traction Travel™ crowdsourced data for a typical weekday

Split Failures

34%
REDUCTION
of weekday split failures

7%
REDUCTION
of weekend split failures

*Calculated from all phases at all signals on the corridor

Travel Time Index

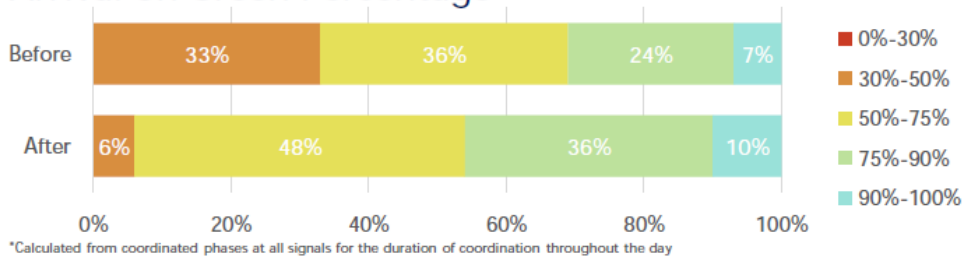
Post Implementation

1.501
AVERAGE TTI
in the westbound direction

1.250
AVERAGE TTI
in the eastbound direction

*Calculated from BlueToad™ device data for all time periods

Arrival on Green Percentage



*Calculated from coordinated phases at all signals for the duration of coordination throughout the day

Next Steps

- “Live” dashboard for results
  - Traction Metrics, etc.
- Selection of corridors based on data driven analysis

Thank you!