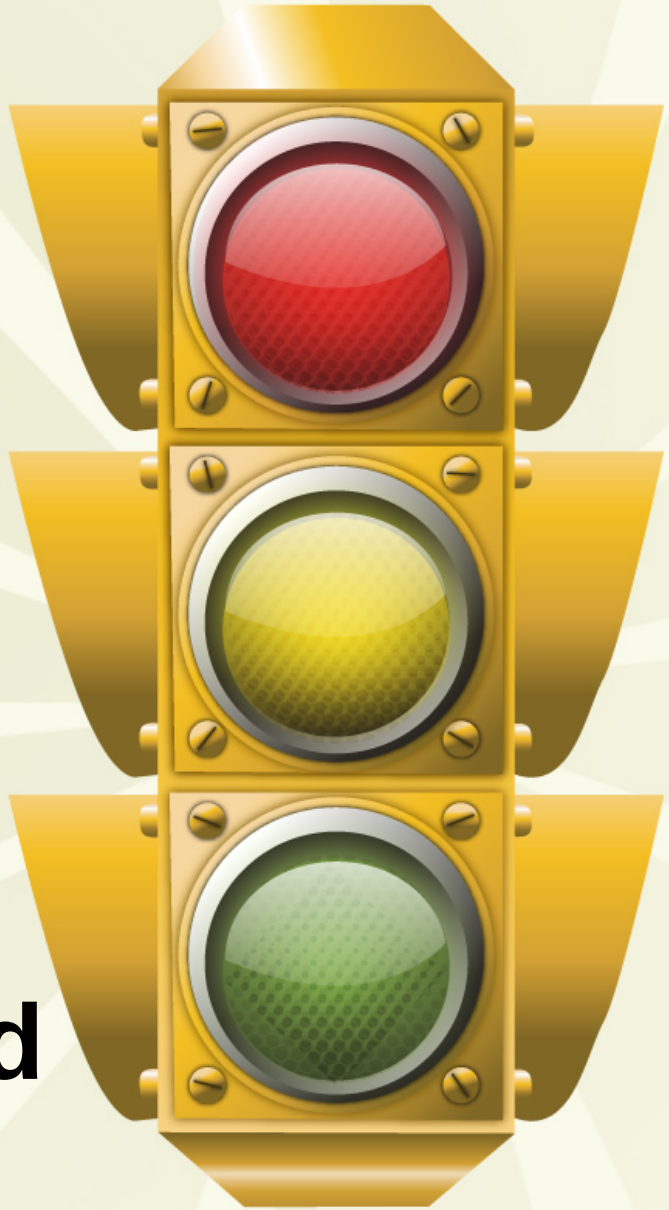
Lexington Vision

Focusing on the Future



Adaptive Computerized Traffic Signalization

Project Overview

- The **$4.5 million project** is made possible through Central Midlands Council of Governments COATS Guideshare funding.
- **35 traffic signals** throughout town limits and major intersections adjacent to town, helping ease congestion in a community that sees up to **40,000 vehicles a day** at many intersections on an average weekday.

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Benefits of System

- **Economic Benefit:** estimated $1million savings per corridor/per year in time and fuel
- **Fewer Crashes:** Reduces accidents by 30%
- **Gas Savings:** 20-30% less fuel consumption
- **Fewer Stops:** 90% less stops at intersections
- **Shorter Commutes:** 50% less travel time
- **Cleaner Air:** 20-30% less emissions

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How an Intersection Works (Local Optimization)

- Detects the approaching and standing vehicle using cameras and other sensors
- Adapts to local traffic demand using digital technology
- Develops the most efficient way to move traffic using a "greedy" algorithm.
- Serves minor streets during "gaps" in major streets

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How the System Works (Global Optimization)

- Optimizes the traffic corridor to experience as few stops as possible
- Communicates with all other signals the volume traffic in entire system
- Considers the amount of travel time needed between signals
- Creates “green tunnels”
- Serves left turns (only when needed) at beginning or end of the green tunnel

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Phase I

- Includes **19 of the 35** signal locations and is planned to bid November 3, 2014.
- **Anticipated Notice** to proceed will be approximately February 1, 2015.
- **Construction** should last approximately nine - ten months.
- System is expected to be **fully operational** by the end of 2015.

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Phase II

- Includes the remaining 16 signals and is expected to go to bid as soon as right of way issues are resolved.

- **Construction** should last approximately nine - ten months.

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Contact Information:

D. Britt Poole
Administrator
Town of Lexington
803-951-1665

bpoole@lexsc.com

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