

REPORT TO THE BOARD OF MAYOR & ALDERMEN

DATE: October 13, 2025

FROM: Neetu Singh, Traffic Engineer

SUBJECT: Professional Services Agreement with Kimley-Horn and Associates, Inc. for Traffic Signal Timing Plans and Field Fine Tuning of Traffic Signals along Byhalia Road from Poplar Avenue to Wolf River Boulevard

INTRODUCTION:

The Board of Mayor and Alderman are being asked to approve a Professional Services Agreement with Kimley-Horn and Associates, Inc. for Traffic Signal Timing Plans and Field Fine Tuning of eight (8) traffic signals along Byhalia Road from Poplar Avenue to Wolf River Boulevard including the Wolf River Blvd/Shelton Rd/Verlington Dr intersection.

BACKGROUND:

The Byhalia Road corridor serves as a vital north-south connection. However, the existing signal timings along this corridor are outdated and no longer reflect current traffic patterns. While the majority of intersection timings were last updated in 2018, based most likely on 2017 traffic counts, the intersection of Wolf River Blvd/Shelton Rd/Verlington Dr intersection operates with timings dating back to 2010. Since these timings were implemented, the Town has experienced significant growth impacting traffic flow along Byhalia Road. Notable changes include the relocation of Collierville High School, the subsequent repurposing of the former high school site as West Collierville Middle School, and the construction of various residential subdivisions. Furthermore, Collierville's population has increased substantially, rising from approximately 43,960 in 2010 to 51,320 in 2020, with a projected increase to 56,490 by 2026. These demographic and land use changes have likely resulted in altered traffic volumes, turning movements, and overall corridor demand.

In accordance with the Federal Highway Administration's (FHWA) Signal Timing Manual, traffic signal timing should be reviewed and updated every three to five years, and more frequently when significant changes in traffic volumes or roadway conditions occur. The substantial changes along the Byhalia Road corridor necessitate a comprehensive signal retiming project to optimize traffic flow, reduce congestion, and enhance safety for all users. This project will re-time the eight signals along the corridor to reflect current conditions.

DISCUSSION:

Kimley-Horn was asked to submit a proposal for retiming and field adjusting traffic signals along Byhalia Road between Poplar Avenue and Wolf River Boulevard, as well as the intersection of Shelton Road/Wolf River Boulevard/Verlington Drive. The proposal detailing their scope of services is attached. Kimley-Horn will conduct 12-hour turning movement counts at nine intersections and create a Synchro/SimTraffic model incorporating existing signal timings, lane geometries, and new traffic counts. Using this model, they will develop optimized cycle lengths, splits, and offsets for each peak period. Kimley-Horn will develop coordinated traffic signal timing plans for eight project intersections, for AM peak, PM peak, Midday, School, and Off-peak periods. These timing plans will be submitted to the Town via coding sheets for installation.

After the timing plans have been implemented, Kimley-Horn will conduct field fine-tuning for each peak period at each intersection and revise the timings plans as needed. They will submit revised timing sheets along with an updated Synchro/SimTraffic model.

STAFF RECOMMENDATION: Staff recommends approval of the Professional Services Agreement with Kimley-Horn and Associates, Inc. for traffic signal timing plans and field fine-tuning of eight (8) traffic signals along Byhalia Road from Poplar Avenue to Wolf River Boulevard as well as at the Wolf River Boulevard/Shelton Rd/Verlington Dr intersection.

BUDGET IMPACT:

Fund	Dept.	Obj. Code	Description	Approved Line Item Budget	Previous Expenses	Proposed Expense	Balance	Budget Impact
321	43800	999-202603	N. Byhalia Rd Signal Re-Timing	\$55,000.00	\$0.00	\$40,500.00	\$14,500.00	N/A

ATTACHMENTS:

[Vicinity Map.pdf](#)
[Kimley-Horn Proposal - Byhalia Road North Signal Timing.pdf](#)

PROPOSED MOTION:

To approve the Professional Services Agreement with Kimley-Horn and Associates, Inc. for Traffic Signal Timing Plans and Field Fine Tuning of traffic signals along Byhalia Road from Poplar Avenue to Wolf River Boulevard in the amount of \$40,500.

Board Action: Motion By _____ Seconded By _____

Vote Total	Hall	Jordan	Robbins	Marshall	Stamps	Fraser
Yes						
No						
Abstain						