

GWINNETT COUNTY DEPARTMENT OF FINANCIAL SERVICES PURCHASING DIVISION

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October 31, 2024

Addendum No. 3 RP050-24

Provision of Engineering Design Services and Construction Document Development for Pedestrian Bridge over Pleasant Hill Road at the Intersection of Mall Boulevard and Pleasant Hill Road

Clarification:

A Bid Bond is not needed.

Attachment:

1. Grant Application.

I. Overview

Safety Context, and Jurisdiction: Spanning over 437 square miles, Gwinnett County is home to over 1 million residents, making it the second most populous county in Georgia. Gwinnett County encompasses a wide range of transportation infrastructure, including 2,650 centerline miles of roadway. As the county continues to grow, so does the complexity of its transportation network, necessitating strategic planning and investment in safety measures to ensure the well-being of all road users. Despite proactive measures, traffic-related incidents remain a pressing issue. Between 2017 and 2021, Gwinnett County experienced a total of 283 fatalities, averaging approximately 56.6 fatalities per year, equating to 5.91 fatalities per 100,000 people per year. These statistics underscore the urgency of our efforts to enhance road safety and mitigate the risks faced by our residents.

Project Scope: This project includes using SS4A funds to test technologies and strategies before including them in the, currently under development, Safety Action Plan. It would pilot speed management treatments, employ enhanced data analytics, and integrate technologies to both plan and evaluate safety interventions. Priority corridors for safety interventions include locally maintained roads on the high injury network with issues that can be addressed using quick-build materials, ensuring we can implement low-cost, high-impact solutions in disadvantaged communities. To assist in identifying these corridors, and aid in the development of the Action Plan, we will acquire a comprehensive traffic crash data management, analysis, and reporting software and obtain system-wide data regarding vehicular movements (e.g., near-misses, speed, volume).

II. Location: Gwinnett County High Injury Locations. Using the new technologies, Gwinnett County will identify high-priority areas and corridors where targeted interventions are needed to mitigate safety risks. By focusing our efforts on these high-priority locations, we aim to maximize the impact of our safety initiatives and create safer streets and roadways for all residents. Through a combination of data-driven analysis, community engagement, and strategic investment, we are confident that we can make meaningful progress towards our goal of creating safer streets and roads for Gwinnett County. Pilot demonstration speed management treatments will occur along the priority corridors - those with high rates of injury crashes, on locally owned roads, with issues that can be addressed using quick-build materials. Priority will be given to corridors in Justice40 designated areas.

III. Response to Selection Criteria

Criterion #1 Safety Impact: Gwinnett County's proposed activities are poised to make a significant contribution towards the reduction or elimination of roadway fatalities and serious injuries, especially those involving vulnerable road users. Through comprehensive planning and targeted interventions, including the implementation of innovative technology and infrastructure improvements, we aim to create safer streets and roadways for all residents and visitors. Our approach encompasses a wide range of road users, including pedestrians, bicyclists, public transportation users, personal conveyance and micromobility users, motorists, and commercial operators. By leveraging crash data from GDOT's AASHTOWare we have identified key areas of concern and will utilize SS4A demonstration funds to pilot strategies to address safety issues effectively. With 283 fatalities occurring between 2017 and 2021, our commitment to addressing these safety challenges is imperative. We are confident that our initiatives will lead to tangible improvements in roadway safety and contribute to saving lives.

Criterion #2 *Equity*. Over 200,000 Gwinnett County residents live in disadvantaged census tracts. By utilizing advanced data analytics and quick-build interventions, we will ensure equitable investment in the safety needs of underserved communities by preventing roadway fatalities and injuries. Not only will we prioritize investments in Justice40 census tracts, but we will also prioritize dangerous corridors in the rural areas of eastern Gwinnett.

Criterion #3 Additional Safety Context. The proposed project to conduct pilot demonstration speed management treatments, acquire a comprehensive traffic crash data management, analysis, and reporting software, and obtain comprehensive data regarding vehicular movements (e.g., near-misses, speed, volume) aligns seamlessly with Gwinnett County's history of forward-thinking planning. This initiative is a testament to our dedication to ensuring the safety and well-being of our diverse and rapidly growing community. The software will leverage machine learning and advanced data analytics to meet traffic safety goals. It will be cloud-based, accessible at all times, and feature customizable live dashboards. The integration of Big Data and connected vehicle technologies into our traffic safety initiatives will serve as a proactive measure to study traffic patterns at high-priority intersections and street segments. This cuttingedge approach will provide real-time insights into potential safety hazards by analyzing near-miss incidents, allowing for data-driven decision-making and preemptive interventions. The utilization of Near-Miss technologies aligns with our dedication to staying ahead of safety concerns and ensuring the well-being of our diverse community. Demonstration funding will be crucial in executing quick-build interventions at high-priority locations. This will be the first time Gwinnett County has utilized quickbuild materials; testing out these interventions will inform future local funding initiatives. These interventions will showcase our commitment to swift action in enhancing road safety. The proposed interventions include the integration of radar speed signs, pedestrian-scale lighting, and strategic use of quick-build materials, such as paint and bollards, to visually narrow roads, calm traffic, and separate user types. These measures aim to create a safer and more pedestrian-friendly environment, addressing immediate safety concerns while providing valuable insights for long-term planning.

Measuring Potential Benefits. Data Collection and Evaluation. Measuring potential benefits and evaluating interventions is crucial for assessing the effectiveness of the funded activities and ensuring that they align with the objectives of the SS4A program. We will begin by collecting baseline data to establish a foundation for comparison before implementing interventions. This may include gathering information on crash rates, types, and locations, as well as existing safety infrastructure and traffic patterns, the utilization of advanced data analytics will assist in performing this task. After conducting the quick-build interventions, we will utilize the same practices to collect follow-up data over a five-year period. We will also look at how materials hold up over time and measure maintenance costs for those materials. This information will inform future quick-build tool guides.

IV. Budget Justification and Expected Outcomes

Budget Justification. We are requesting \$800,000 to fund Supplemental Planning activities, for a total project cost of \$1,000,000. This funding will support comprehensive supplemental planning activities aimed at enhancing roadway safety within Gwinnett County including the acquisition of multiple technologies to enhance decision-making and strategic planning for improving roadway safety. By investing in these technologies, we will ensure efficient management of crash data, streamline reporting processes, and facilitate data-driven interventions to address safety concerns effectively. The integration of vehicle movement technology will provide valuable insights into traffic patterns, including near-misses, allowing us to identify high-risk areas and potential safety hazards. By analyzing vehicle

movement data, we can better understand traffic flow dynamics, identify areas prone to congestion or accidents, and develop targeted interventions to improve safety and mobility for all road users. We are also requesting \$800,000 in Demonstration Project funding, for a total project cost of \$1,000,000. Quick build traffic calming interventions are low-cost, high-impact strategies aimed at reducing vehicle speeds and improving safety for pedestrians and cyclists. This funding will support the implementation of quick build traffic calming measures such as curb extensions, traffic islands, and chicanes, creating safer and more walkable streets for all residents. Overall, the requested \$1.6 million in SS4A funds will enable us to implement a comprehensive approach to roadway safety, addressing key safety issues and leveraging innovative technologies to reduce roadway fatalities and serious injuries within Gwinnett County.

Expected Outcomes: First, integrating advanced data analytics into the Safety Action planning efforts will provide the tools needed to effectively manage safety concerns in this dynamic and diverse landscape. The implementation of Near-Miss technologies will contribute to a more comprehensive understanding of traffic patterns, allowing for refined safety analyses and proactive safety planning. Second, quick-build interventions will demonstrate the effectiveness of rapid, targeted safety measures, providing tangible improvements to high-priority locations. This project will help grow the body of evidence about what types of treatments are preferred by residents and stakeholders and most effective for the Gwinnett County context. Finally, the demonstration projects will actively involve the community in the safety enhancement process, fostering awareness and collaboration among residents, local stakeholders, and government agencies. Gwinnett County's rapid growth and cultural diversity, reflected in more than 140 spoken languages, necessitates innovative approaches to address evolving transportation challenges. With the Board of Commissioners' focus on Organizational Excellence and Accountability, the projects will contribute to high-impact implementation and outreach strategies.

V. **Conclusion.** The proposed demonstration project aligns seamlessly with the SS4A program's goals of improving roadway safety and reducing fatalities and serious injuries. By integrating advanced analytics, big data, and Near-Miss technologies, as well as implementing quick-build interventions, we aim to showcase practical and innovative approaches to enhance road safety within a short timeframe. The system's visualizations will utilize the latest web-based technologies, providing an exceptional user experience for data-driven decision-making. Gwinnett County has already identified over 120 safety projects in existing plans, this underscores our proactive stance in ensuring the well-being of residents. The proposed projects will enhance our ability to strategically plan and implement safety measures, fostering a safer and more sustainable transportation infrastructure. Gwinnett County's pursuit of supplemental planning funds to acquire a crash data management, analysis, and reporting software is not just a response to our current challenges but a proactive step towards meeting the needs of our diverse and rapidly growing community. Rooted in a history of planning excellence and equitable engagement, this initiative aligns seamlessly with our Board of Commissioners' priorities, reinforcing our commitment to organizational excellence, public infrastructure, and sustainability. Through the integration of Near-Miss technologies and quick-build interventions, we aspire to not only address immediate safety concerns but also contribute valuable insights for future planning. These efforts will enhance the development of our Safety Action Plan and bolster community support for future safety projects. These demonstration projects align with our commitment to innovation, community engagement, and the overarching goal of creating safer streets and roads for all residents. We are confident that the SS4A Supplemental Planning and Demonstration funds will serve as a catalyst for transformative safety measures in our dynamic and rapidly growing community.