

Submitted By: Transportation & Public Works Department
Stephen Bailey, Director

Project Type: Streets/Roads/Bridges related projects - Transportation & Public Works Department

Previously submitted but not selected: No

Continuation Project: Yes - TSPLOST 2023; 30-Traffic Safety Infrastructure Improvements

Executive Summary: This project provides funding to rebuild older traffic signals and associated equipment or replacement, if needed. Rebuilding or replacing includes modifications to meet current specifications and capabilities. Also, could fund new traffic signals. For the below stated budget (combined with anticipated funding from general capital revenues) is anticipated that approximately 25 to 35 of the older traffic signals could be replaced, based on an estimated cost per rebuild of \$350 - 500K.

(This would be Traffic Signal Infrastructure Improvements Program, as there would be multiple sub-projects and there is no clearly defined location.)

Project Total Cost: \$ 7,789,000

Total Operating Cost: \$ 76,000

Does this Project require the acquisition of any land? Unsure

Project/Program Description: Traffic Signal Replacement provides funding to rebuild aging 30 plus years of traffic signals including poles, controller equipment, signal heads, signal wire, and miscellaneous equipment. Should a new traffic signal become warranted, this project would also be eligible to fund installation. With every traffic signal rebuild each one is also upgraded to current specifications for smart city capability with equipment, software and fiber connectivity for efficient operations to serve all vehicles, bicycles, pedestrians and emergency services. Specific signal upgrades are prioritized based on an approved scoring matrix that weighs values including: infrastructure condition, pedestrian standards, crash history, and volumes.

(This would be Traffic Signal Infrastructure Improvements Program (as there would be multiple sub-projects and there is no clearly defined location.)

Staff Comments: To promote clean energy and sustainability goals, consider adding that lights will be energy efficient LED or better and that pedestrian and streetlights will also be energy efficient and meet dark sky standards.

How is this Project included in the Madison Athens-Clarke County Oconee Regional Transportation Study (MACORTS) long-range Transportation Improvement Plan (TIP)? ACC Traffic Signal Replacement Program (Project V-6)

PROJECT JUSTIFICATION

How will the Project meet the stated Program Goals in the Mayor & Commission Strategic Plan to provide long-term, ongoing contributions to the Sustainable Transportation needs of the Athens-Clarke County?

Goal Area 1; Section E: Support & promote healthy lifestyle: moving, eating, forming healthy relationships, physical and psychological care: Pedestrian detection with current technology in updated intersections will reduce the wait times for walking access even during high vehicle volumes by adaptive timing. Updated traffic signals also standardize additional pedestrian safety features including ped signals, electronic button activation systems and ADA access, as well as striped crosswalks throughout the intersection.

Goal Area 5; Section A: Improve, expand, and maintain sidewalks, shared-use paths, and bike facilities to provide greater opportunities for residents to use active transportation safely: Updated traffic signals offer the ability to use smart connected technology and interact with alternative transportation by adapting to the demand of roadway users. Updated traffic signals also standardize additional pedestrian safety features including ped signals, electronic button activation systems, ADA access, as well as striped crosswalks throughout the intersection.

Goal Area 5; Section C: Expand multi-modal Transit access to reduce auto dependency and provide greater mobility for Athens residents: Updated traffic signals with fiber connectivity, detection and smart technology can reduce transit travel times by detecting the public transit vehicles within the proximity of intersections and reducing the delay during peak vehicle volumes.

Goal Area 5; Section D: Create more usable and aesthetically pleasing corridor connections between residential and commercial areas: Current traffic signals can operate with adaptive technology and increased efficiency by serving a higher volume of roadway users. The increased service capability can promote growth of business with improved access by vehicles and pedestrians.

Goal Area 5; Section E: Enhance safety for all modes of transportation: Updated infrastructure and standardization will allow the traffic signal and equipment to operate more efficient. The connected technology can allow vehicles to detect pedestrians, bicycles and other vehicles within the intersections to avoid incidents and reduce other vehicle collisions.

Goal Area 6; Section B: Ensure equitable access to infrastructure to enhance safety and identity: With 32 traffic signals over 40 years of age the underground and pole infrastructures are failing with continuous maintenance requirements needed. The additional maintenance requirements result in additional after hour call outs, continuous equipment replacements and additional staff hours/vehicle use for temporary repairs. Rebuilding the aging infrastructure will improve the transportation system for ACC and improve the community through increased service on the roadway.

Goal Area 6; Section C: Provide adequate funding for maintenance of existing and newly constructed infrastructure: Rebuilding the outdated traffic signals will reduce the capital funding that currently will never reach the goal of sustainability due to the number of intersections past the recommended life span of 13 years. Updating the signals will allow the equitable funding through capital to maintain the rebuilds needed and reduce maintenance to improve the overall community through roadway efficiency.

Goal Area 6; Section E: Address ecosystem health, infrastructure sustainability, and resilience: Traffic signals with updated technology and detection reduce the delay times for all roadway users. Vehicle and pedestrian wait times are greatly reduced through adaptive technology and timing that changes with volume data therefore improving air quality by reducing idle times.

Project Costs

Detailed project capital budget costs (to be funded from TSPLOST 2026 only):

Project Costs (round to thousand)	Amount
1. Land Acquisition / ROW / Easement:	\$
2. Design Fees: (Min.12% of New Const.; 14% of reno,; 16% for LEED proj.)	\$ 612,000
3. Miscellaneous Fees: (Min. Minimum of 3% of Construction Costs – used for permitting, etc. Utilize minimum of 10% if land acquisition if necessary.)	\$ 25,5000
4. Construction:	\$ 5,100,000
5. Construction Contingency: (10% of the Construction line item)	\$ 510,000
6. Testing:	\$ 153,000
7. Project Management: (4% of the total budget line items above)	\$ 265,000
8. Project Contingency: (10% of the total budget line items above)	\$ 690,000
9. Public Art: Calculated at 1% of the Construction line item.	\$ 51,000
10. Other 1:	\$
11. Other 2:	\$
Project Subtotal:	\$ 7,636,000
14. Program Management (2% of Project Subtotal):	\$ 153,000
TSPLOST 2026 Project Total:	\$ 7,789,000

Operating Cost

Total Annual Net Operating Costs when Project is complete:

Only identify additional or net operating costs to be paid by ACCGov as a result of this Project. Identify the additional or net costs needed, above ACCGov's current operating budget, to operate the requested project; as well as any additional Project related revenues that would be generated. Provide budget costs for each identified category below.

Operating Costs (round to thousand)	Estimated Impact for Annual Operating Expenditures
TOTAL PROJECTED REVENUES FROM PROJECT	
PROJECTED EXPENDITURES	
1. Personnel Costs: from Appendix A	
2. Annual Utilities:	
• Natural Gas:	
• Electrical:	
• Water:	
• Sewer:	
• Phone:	
• Solid Waste Collection:	
• Other:	
3. Operating Supplies:	
4. Equipment Maintenance:	75,000
5. Facility Maintenance:	
6. Other: Public Art Maintenance	1,000
7. Other:	
8. Other:	
TOTAL EXPENDITURES	
NET OPERATING COSTS OF PROJECT:	\$ 76,000

Project Financing

Is the proposed Project to receive funding from source(s) other than TSPLOST 2026? Yes

Total Capital Financing for Project:

If the proposed Project is to receive funding other than TSPLOST 2026, provide a listing of amounts from each of the categories listed below. Please round all dollar amounts to the nearest \$1,000.

Project Sources (round to thousand)	Amount
1. TSPLOST 2026 ¹ :	\$ 7,789,000
OTHER SOURCES	
2. ACCGov General Fund:	\$ 5,000,000
3. ACCGov Enterprise Fund:	\$
4. State Grant:	\$
5. Federal Grant:	\$
6. Previous SPLOST:	\$
7. Other (describe):	\$
8. Other (describe):	\$
TOTAL SOURCES:	\$ 12,789,000

¹ If any additional sources of funding other than TSPLOST 2026 are indicated above, please provide information related to the source here. Be specific and be prepared to provide all necessary written approvals. (For example: Roadway projects that have approval for Federal Aid and will utilize TSPLOST 2026 funding for matching funds, you would need to provide specific written approval by GDOT)

Describe the current commitments for the other sources funding this project: The current cost range for a traffic signal rebuild is \$350,000.00 to \$500,000.00 depending on the infrastructure needed within the intersection. For ACCGOV to reach a sustainability goal of normal lifespan for annual capital signal replacements, this project will need to rebuild 7 intersections each year for the project term. Anticipating a continued \$1 Million annually from general capital contributions, and combined with the TSPLOST 2026 proposal above will meet this life cycle funding requirement.