

**AGREEMENT BETWEEN
KENTUCKY TRANSPORTATION CABINET
AND
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
ITS/CMS TRAFFIC IMPROVEMENTS
\$480,000 SLX FUNDS**

This AGREEMENT is made and entered into, by and between the Commonwealth of Kentucky, Transportation Cabinet, hereinafter referred to as the CABINET, and the Lexington-Fayette Urban County Government, hereinafter referred to as the LFUCG.

WITNESSETH

WHEREAS, Section 133 of Title 23, United States Code, established a surface transportation program to authorize Federal funds to be appropriated for projects specified in Title 23, United States Code, Section 133 (b), and the applicable Assistance number is 20.205 – Highway Planning and Construction Program; and

WHEREAS, an allocation of these funds shall be made available by the CABINET to urbanized areas over 200,000 population; and

WHEREAS, the LFUCG has submitted a Scope of Work and Budget Summary for Intelligent Transportation System (ITS) and Congestion Management System (CMS) Traffic Improvements, hereinafter referred to as the PROJECT, for approval requesting Federal Surface Transportation Program Metropolitan Lexington (SLX) funds in the amount of \$480,000, and local funds in the amount of \$120,000 (20% local share) for a total contract cost of \$600,000 for the period not to begin before July 1 2023 through June 30, 2025; and

WHEREAS, the CABINET is willing to provide these Federal funds to the LFUCG subject to annual Federal obligation limitations, the amount of which shall be 80% of the eligible costs associated with the PROJECT; and

WHEREAS, the LFUCG has agreed to provide Non-Federal funds to match the Federal-aid funds for the PROJECT, as more particularly set forth hereinafter; and

WHEREAS, the PROJECT is part of the approved Transportation Improvement Program for the Lexington Urbanized Area,

WHEREAS, the Federal-aid Highway Program is a State Administered Reimbursement Program and the LFUCG shall carry out this PROJECT in accordance with applicable Federal and State laws and regulations including all of Title 49 United States Code (USC), Title 23 United States Code (USC), 49 Code of Federal Regulations (CFR), 23 Code of Federal Regulations (CFR), and 2 CFR 200,

WHEREAS, the LFUCG shall complete the work as described in the Scope of Work and Budget Summary (Attachment A) in accordance with the terms and conditions of this AGREEMENT, FHWA Form 1273, and the Project Development Checklist & Certification,

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVMENTS
\$480,000 – SLX (FD52) FUNDS

WHEREAS, the LFUCG shall refer to the Federal-Aid Project Development Guide for Local Public Agencies and any future revisions, the FHWA Contract Administration Manual, the CABINET/FHWA Stewardship Agreement, and all applicable State and Federal laws and regulations for assistance in complying with this AGREEMENT,

WHEREAS, all Federal-aid projects must also specifically comply with the National Environmental Policy Act (NEPA), Section 4(f) of 49 United States Code (USC) 303, Section 106 of the National Historic Preservation Act, Sections 401 and 404 of the Clean Water Act, the Endangered Species Act, and any other applicable environmental laws and regulations,

WHEREAS, all Federal-aid projects must also specifically comply with the Federal Funding Accountability and Transparency Act, Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990 (ADA),

WHEREAS, the requirements of the Disadvantaged Business Enterprise (DBE) program, as described in 23 CFR 635 Subpart A and Section 1101(b) of MAP-21 (the Moving Ahead for Progress in the 21st Century Act, the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act), and the Federal Buy America construction contracts requirements, as spelled out in 23 CFR 635 Subpart D, apply to all Federal and Federal-aid transportation programs,

WHEREAS, the LFUCG must comply with Federal guidelines listed in 23 CFR 635 for procurement services, and KRS 177, KRS 179, and KRS 45A, the Kentucky Model Procurement Code (MPC), as it relates to State agencies,

WHEREAS, Federal-aid projects are to serve a public purpose, the LFUCG is responsible for perpetual maintenance any real property or facilities improved pursuant to the PROJECT on a non-profit basis,

WHEREAS, the LFUCG shall demonstrate and shall maintain adequate staff, provide delivery systems, and sufficient accounting control to complete the PROJECT in accordance with all Federal and State laws and regulations addressed herein, and

WHEREAS, the LFUCG shall accept responsibility for all administration, staffing, reporting, monitoring, maintenance and operation costs for the PROJECT as identified under this AGREEMENT.

NOW THEREFORE, in consideration of the mutual covenants and agreements herein set forth, the CABINET and the LFUCG hereby agree as follows:

Section 1. Scope of Work & Budget Summary. It is understood that the PROJECT will enhance the transportation system for the community as further described by the LFUCG in the Scope of Work and Budget Summary (Attachment A, attached hereto and made a part of this AGREEMENT). The FHWA through the CABINET agrees to reimburse the LFUCG up to \$480,000 for completion of work by the LFUCG, or consultants, contractors, or subcontractors hired by the LFUCG, under the obligations of this AGREEMENT for the following PROJECT:

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS

The LFUCG shall identify and provide a point of contact, including adequate contact information, for who shall be in responsible charge to manage this PROJECT on the LFUCG's behalf, and be responsible for ensuring that the LFUCG adheres to all terms and conditions of this AGREEMENT. The LFUCG has agreed to execute the PROJECT. The CABINET/FHWA Project Development Checklist and Certification shall be submitted by the LFUCG and certified by the CABINET prior to construction, if applicable.

Section 2. Effective Date of Agreement and Term of Eligible Reimbursement. The effective date of this AGREEMENT is the date of signature by the Secretary of the CABINET. After execution of the AGREEMENT, the CABINET will return an original AGREEMENT to the LFUCG. Expenditures made prior to the effective date of the AGREEMENT and before the Notice To Proceed shall not be eligible for reimbursement. The Term of Eligible Reimbursement under this AGREEMENT shall end June 30, 2026, unless that Term is extended or amended by written agreement in accordance with the provisions of 23 CFR 635 and KRS 45A and with the mutual consent of the parties. Any and all funding obligated for any Phase of this PROJECT defined by the original Scope of Work and authorized changes shall be available to reimburse the LFUCG for eligible work activities completed and costs incurred after the effective date of this AGREEMENT and the Notice To Proceed, and prior to expiration of this AGREEMENT. After the end of the Term, no expenditures are eligible for reimbursement and the LFUCG shall be responsible for any unreimbursed expenses and any further expenses incurred to complete the PROJECT. This AGREEMENT is contingent upon the continued availability of appropriated Federal funding. If the funding appropriated for the PROJECT becomes unavailable for any reason including the Kentucky General Assembly's failure to appropriate the funding, by operation of law or as the result of a reduction in Federal funding, further reimbursement of PROJECT expenditures may be denied, the PROJECT may be cancelled, the timeline extended or the scope amended by the CABINET either in whole or in part without penalty. Denial of further reimbursement, PROJECT cancellation, extension or amendment because of an interruption in the appropriated funding is not a default or breach of this AGREEMENT by the CABINET nor may such denial, cancellation, extension or amendment give rise to any claim against the CABINET.

Section 3. Duration of Project. It is agreed by the parties hereto that the Scope of Work shall be completed between July 1, 2023 and June 30, 2025 and all project close-out completed within the period set forth herein under Section 2. In the event the LFUCG fails to complete the Scope of Work within the time allotted, or at any time the LFUCG fails to maintain adequate staff, project delivery systems, or sufficient accounting control, the CABINET reserves the right to cancel further reimbursements related to the PROJECT under this AGREEMENT. In the event the CABINET denies further reimbursement due to LFUCG's failures as noted above, the LFUCG shall refund all reimbursements made by the CABINET to the LFUCG under this AGREEMENT.

Section 4. Project Funding. It is expressly understood that federal funding for this PROJECT is being

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS**

provided by the FHWA through the CABINET, specifically through the Catalog of Federal Domestic Assistance program number 20.205, Highway Planning and Construction. Following prioritization and programming in the Lexington Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP), the CABINET has obligated up to \$480,000 in Federal Surface Transportation Program Metropolitan Lexington (SLX) funding for this PROJECT.

The federal share of the total cost of this AGREEMENT shall not exceed \$480,000 in SLX funding unless otherwise approved in writing by the CABINET with the concurrence of FHWA. Reimbursement requests will be considered only for and up to the funding amount and type of work described in the approved Scope of Work and Budget and authorized by the Notice to Proceed. The LFUCG has agreed to accept up to \$480,000 in Federal reimbursement funding available as authorized for eligible PROJECT costs and shall be responsible for any costs in excess of \$480,000 that are necessary for completion of the approved Scope of Work and any authorized changes to the PROJECT. The 20% matching local share of \$120,000 shall be the responsibility of the LFUCG. The LFUCG agrees to provide local matching funds in the amount sufficient, together with the allocated Federal funds, to assure completion of the PROJECT.

The LFUCG shall pay all PROJECT expenses and only upon meeting all terms and conditions of this AGREEMENT will be eligible to receive Federal reimbursement funding. The Federal share of costs is payable quarterly by the CABINET upon presentation and approval of an invoice and two (2) copies of adequate documentation. All charges to the PROJECT shall be supported by properly executed invoices, contracts, vouchers, or monthly employment data evidencing in proper detail the nature and propriety of the charge. The CABINET or FHWA may require additional documentation at their discretion.

It is understood that the value and character of any "in-kind" services contributed toward the local match must be approved by the CABINET and FHWA prior to being credited to the PROJECT. All "in-kind" services must meet CABINET and FHWA eligibility and applicability requirements.

It is further understood that revisions in the PROJECT Budget may be necessary and may be allowed if they do not exceed the total sum set out above, subject to the prior written approval of the CABINET. In order for the LFUCG to be reimbursed for costs that are not listed in the PROJECT Budget, the LFUCG must obtain written approval from the CABINET prior to incurring these costs.

Regardless of whether the contract time is extended, unexpended funds at the end of the PROJECT shall not be carried forward to a future AGREEMENT.

Section 5. Allowable Costs. Funding may be used for restoration, repair, construction and other activities eligible under the Surface Transportation Program (STP) as defined within 23 USC 133(b). Funding may also be used for passenger and freight rail transportation and port infrastructure projects eligible for assistance under subsection 23 USC 601(a)(8). The PROJECT costs referred to in this AGREEMENT shall be those costs included

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS**

in the Scope of Work (Attachment A) and submitted to the CABINET on the Reimbursement Request Form. The LFUCG shall follow 2. CFR 200.

The LFUCG is responsible for adhering to all Federal and State laws and regulations listed in this AGREEMENT and all documents referred to herein. Reimbursement by the CABINET shall not be provided to the LFUCG if any requirements listed within 23 CFR 123 are not met. The CABINET shall reimburse the LFUCG upon request by the LFUCG providing proof of payment through appropriate documentation, which includes but is not limited to the following: work progress completed to date, expenses, cancelled checks, bank statements, verified affidavits, and employment reports. The LFUCG shall also certify the work shown on the invoice has been performed in accordance with the terms of this AGREEMENT and approved plans and specifications, the cost(s) shown are verified and are true and correct, and the request for reimbursement in no way represents any degree of duplication of payments that have or will be received from other funding sources. This formal letter must be signed by the designated project manager for the LFUCG in responsible charge.

Reimbursement by the CABINET is also subject to the provisions of Sections 33 and 36 hereof. The CABINET or FHWA reserves the right to require additional documentation

Section 6. Reporting and Monitoring. This Federal-aid project is subject to the reporting requirements contained in the Federal Funding Accountability and Transparency Act (Transparency Act) of 2006 and its associated amendments. The Transparency Act requires entities receiving Federal awards such as Federal contracts, sub-contracts, grants and sub-grants, to disclose certain information. This Agreement is subject to 31 USC 6101, 2 CFR 170, and 2 CFR Subtitle A, Chapter I and Part 25.

The LFUCG shall maintain and comply with all reporting requirements outlined by the CABINET and FHWA, including the submittal of progress reports detailing the status of the PROJECT. The LFUCG shall provide invoices for expenses that match the approved Scope of Work and Budget Summary submitted to the CABINET. The making, recording and reporting of any purchases shall be undertaken in accordance with the requirements of KRS 45A. All checks, invoices, contract records, vouchers, orders, and purchasing documents pertaining in whole or in part to the PROJECT shall be clearly identified and readily accessible. The LFUCG shall permit the CABINET and/or FHWA to conduct periodic site visits to ascertain compliance with federal and state laws and regulations. The LFUCG shall maintain financial records for three years after project completion, Final Acceptance and final reimbursement.

Section 7. Environmental Requirements. The CABINET has reviewed the Scope of Work and the Division of Environmental Analysis has issued a Categorical Exclusion for Minor Projects (CEMP) for the following PROJECT description: Upgrade and enhancement of hardware, software, training and development to improve traffic flow and reduce congestion.

Section 8. Permits and Licenses. The LFUCG is responsible for obtaining all permits and licenses required to initiate, perform and complete all phases of the PROJECT in an appropriate and timely manner. Concurrence

must be obtained by the LFUCG through the CABINET's District 7 Chief District Engineer in Lexington prior to the awarding of any contract for work or materials to be used on this PROJECT. Per the CABINET/FHWA Stewardship Agreement, the PROJECT may require more involvement from the FHWA.

Section 9. Design and Construction Standards. All Federal and State design and construction criteria for the type of work shall be followed, including but not limited to 23 CFR 625, the CABINET's Highway Design Manual, the CABINET's Standard Drawings, the CABINET's Standard Specifications for Road and Bridge Construction, the CABINET's Drainage Manual, the CABINET's Structural Design Manual, the American Association of State Highway Transportation Officials' (AASHTO) "Policy on Geometric Design of Highways and Streets", and the FHWA Manual on Uniform Traffic Control Devices (MUTCD). All work performed shall be in accordance with the CABINET's Standard Specifications for Road and Bridge Construction, current edition, and as provided in Subsection 105.01 of said Specifications. All materials furnished shall be in accordance with Subsection 106 of said Specifications, including the CABINET's List of Approved Materials. These standards, specifications, and criteria are incorporated in this AGREEMENT by this reference.

Section 10. Engineering Services. The LFUCG shall be responsible for all PROJECT design activities, including to fully develop the PROJECT as defined within the body of this AGREEMENT, resulting in the preparation of all plans, specifications, notes, and a final estimate for concurrence by the CABINET, as applicable.

Section 11. Contractor Procurement. The LFUCG shall be responsible for all PROJECT construction activities as defined within the body of this AGREEMENT, which may be completed either by the LFUCG's staff or by a contractor. If the LFUCG intends to use contractor services, the LFUCG shall act in accordance with the Federal contract provisions listed in FHWA Form 1273 which take precedence over the Kentucky Model Procurement Code provisions KRS 45A.343 and KRS 45A.345-460, as well as KRS 424, 23 CFR 635, 23 USC 112. Contractors and subcontractors must be pre-qualified by the CABINET for the type of work prior to be awarded a contract. If no CABINET prequalification category exists, a contractor or subcontractor must receive the approval of the CABINET prior to working on the PROJECT. The contractor affirms that it is properly authorized under the laws of the Commonwealth of Kentucky to conduct business in this state and will remain in good standing to do business in the Commonwealth of Kentucky for the duration of any contract awarded. The contractor shall maintain certification of authority to conduct business in the Commonwealth of Kentucky during the term of this contract. Such registration is obtained from the Secretary of State, who will also provide the certification thereof.

If applicable, the LFUCG shall prepare an independent engineer's estimate in accordance with 23 CFR 630, Subpart B to compare against the contractors' bids for reasonableness. The LFUCG shall thoroughly review all bids and obtain concurrence from the CABINET prior to the award or the rejection of any contract of bids for work or materials to be used on this PROJECT. Factors that should be considered in reviewing submitted bids

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVMENTS
\$480,000 – SLX (FD52) FUNDS**

are: a comparison of the bids against the engineer's estimate, the number of bids submitted, the distribution or range of bids received, the geographic location of bidders, any potential savings from readvertising the PROJECT, a comparison of bids against other recent bids for the same item or service, the urgency of the PROJECT, the number of times previously advertised or contracted for, the current market conditions, a comparison of unit bids versus engineer's estimate unit bids, the funding available. Determining whether the bids received are adequate involves considering any critical safety improvements, emergency repair or replacement of damaged facilities, the opening of otherwise completed facilities to traffic, furthering a phased construction schedule, or any other factors deemed important by the CABINET or FHWA. Specific Federal requirements defined within 23 CFR 635 require that the award be made to the lowest responsive bidder meeting the criteria of responsibility established by the CABINET.

Section 12. Contract Administration and Inspection. The LFUCG shall be responsible for all aspects of administration, measuring, testing, and inspections to ensure the materials and construction work meets CABINET specifications and federal quality assurance specifications referenced in 23 CFR 637 and 23 CFR 635.105 (a) or (b). This includes providing daily, on-site inspection of the contractor's and subcontractor's work activities and processing all of the paper work associated with the construction contract, including any change orders. The LFUCG must receive prior written CABINET approval for all change orders, but such approval shall not increase the funding obligated to the LFUCG under this AGREEMENT or otherwise.

The LFUCG shall use the CABINET's current Regional Highway and Bridge Construction Inspection advertisement for construction inspectors, or must receive CABINET approval to submit an Alternative Construction Inspection Plan. If the LFUCG does not have adequate staff to perform this work, the LFUCG may hire a consultant or enter into an agreement with another governmental agency to provide these services. The CABINET must review and approve the Construction Engineering and Inspection agreement and the agreement with the service provider must be submitted to FHWA for concurrence. If the LFUCG elects to hire a consultant, the LFUCG must ensure that the consultant staff is competent in construction inspection and performs all work under the direct supervision of a registered professional engineer or architect licensed in the Commonwealth of Kentucky. The use of a consultant does not relieve the LFUCG of ultimate responsibility for the proper administration and inspection of the construction. If a consultant is used to provide inspection services, the LFUCG must also provide an appropriately certified and licensed LFUCG employee to be in responsible charge of the PROJECT oversee the inspections.

When an Alternative Construction Inspection Plan is submitted, the LFUCG must ensure sufficient quantity and quality are delivered and that proper inspection documentation is maintained. The Alternative Construction Inspection Plan must be performed under the supervision of a Professional Engineer licensed in the state of Kentucky, include credentials and experience of inspectors, indicate testing consistent with the CABINET's

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS

Sampling Manual, detail the frequency, who will be responsible, what will be included in reports, and coordinate with the CABINET's construction inspector.

The CABINET and/or the FHWA shall have access to the PROJECT area and may conduct an announced or unannounced field review of the PROJECT at any time. This field review is intended to verify status of the PROJECT, performance of the contractor, adequacy of the LFUCG oversight, conformance with all laws, regulations, and policies applicable to the Federal-aid Highway Program, and provide assistance to the LFUCG where necessary.

Section 13. Davis-Bacon and Related Acts. The 1931 Davis-Bacon Act (prevailing Federal wage) requires the recipients of all Federal-aid construction projects to comply with contractor and subcontractor payment rates and fringe benefits as determined by the Secretary of Labor for corresponding classes of laborers and mechanics engaged in similar construction activities. Specific wage rates shall be included in the construction contract between the LFUCG and the contractor, which must also include a contract provision that overrides the general applicability provisions in Form FHWA-1273, Sections IV and V.

Section 14. The Contract Work Hours and Safety Standards Act. During the construction of the PROJECT, the LFUCG shall comply with the Contract Work Hours and Safety Standards Act which contains weekly (after 40 hours) overtime pay requirements and applies to most Federal contracts which may require or involve the employment of laborers and mechanics, including watchmen and guards. Section 107 of the Act provides health and safety standards on covered construction work which are administered by the Occupational Safety and Health Administration (OSHA). The LFUCG shall refer to the Contract Work Hours and Safety Standards Act for the requirements under this provision.

Section 15. The Copeland "Anti-Kickback" Act. The LFUCG shall comply with the "Anti-Kickback" section of the Copeland Act, which makes it punishable to induce any person working on a Federally funded or assisted construction project to "give up any part of the compensation to which he is entitled under his contract of employment." The LFUCG shall refer to the Copeland Act for the requirements under this provision.

Section 16. Title VI - Civil Rights Act of 1964. The LFUCG shall comply with all requirements imposed by Title VI of the Civil Rights Act of 1964 (78 Stat. 252), and any applicable DOT Regulations (CFR Title 49, Subtitle A, Part 21). Title VI prohibits discrimination on the basis of race, color, national origin, disability, gender, and age in all programs or activities of any recipient of Federal assistance.

Section 17. Equal Employment Opportunity. In connection with the execution of this AGREEMENT, the RECIPIENT shall take affirmative action and not discriminate against any employee or applicant for employment to ensure that applicants are employed, and that employees are fairly treated during their employment, without regard to their race, religion, color, sex, national origin, age, or disability. Such actions shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising;

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS

layoff or termination; rates of pay or other forms of compensation; and selection of training including apprenticeship. The RECIPIENT shall incorporate the foregoing requirements of this paragraph in all subcontracts for services covered by this AGREEMENT.

Section 18. Non Discrimination. Discrimination (because of race, religion, color, national origin, sex, sexual orientation, gender identity, age, or disability) is prohibited. This section applies only to contracts utilizing federal funds, in whole or in part. During the performance of this contract, the RECIPIENT agrees as follows:

a. The RECIPIENT will not discriminate against any employee, applicant, contractor or consultant for employment because of race, religion, color, national origin, sex, sexual orientation, gender identity, or age. The RECIPIENT further agrees to comply with the provisions of the Americans with Disabilities Act (ADA), Public Law 101-336, and applicable federal regulations relating thereto prohibiting discrimination against otherwise qualified disabled individuals under any program or activity. The RECIPIENT agrees to provide, upon request, needed reasonable accommodations. The RECIPIENT will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, national origin, sex, sexual orientation, gender identity, age or disability. Such action shall include, but not be limited to the following; employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship. The RECIPIENT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

b. The RECIPIENT will, in all solicitations or advertisements for work placed by or on behalf of the RECIPIENT; state that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age or disability.

c. The RECIPIENT will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the RECIPIENT's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The RECIPIENT will take such action with respect to any contract, subcontract or purchase order as the CABINET or FHWA may direct as a means of enforcing such provisions, including sanctions for noncompliance.

d. The RECIPIENT will comply with all provisions of Executive Order No. 11246 of September 24, 1965 as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.

e. The RECIPIENT will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to the PROJECT books, records and accounts by the CABINET or FHWA and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS**

f. In the event of the RECIPIENT's noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations or orders, this Agreement may be cancelled, terminated or suspended in whole or in part and the RECIPIENT may be declared ineligible for further government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in or as otherwise provided by law.

g. The RECIPIENT will include the provisions of paragraphs (1) through (7) of section 202 of Executive Order 11246 in every contract, subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor, issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each contractor, subcontractor, consultant or vendor. The RECIPIENT will take such action with respect to any contract, subcontract or purchase order as the CABINET or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event a RECIPIENT becomes involved in, or is threatened with, litigation with a contractor, subcontractor or vendor as a result of such direction by the CABINET or FHWA, the RECIPIENT may request the United States to enter into such litigation to protect the interests of the United States.

Section 19. Disadvantaged Business Enterprise (DBE) Requirements. An applicant DBE firm must be given consideration for participation in the PROJECT and a DBE goal shall be set by the CABINET for work on the PROJECT. The CABINET shall review and approve the DBE goal based on CABINET processes and procedures. Any participating DBE firm must be certified as a DBE firm and be prequalified with the CABINET. The RECIPIENT agrees to comply with the DBE Requirements contained within 23 CFR 635 Subpart A, Section 1101(b) of Public Law 109-59, Chapter 3 of Title 49 USC and 49 CFR Part 26 to ensure equal opportunity to socially and economically disadvantaged small businesses.

Assurance. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this AGREEMENT. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts assisted by the United States Department of Transportation. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other allowable remedy the CABINET deems appropriate. Each contract signed with a contractor (and each subcontract the prime contractor signs with a subcontractor) must include this provision.

DBE Prompt Payment Requirement. The contract between the RECIPIENT and the contractor shall include a contract provision that requires the contractor to comply with 49 CFR 26.29 and pay its subcontractors within then (10) working days from receipt of each payment RECIPIENT makes to the contractor. The RECIPIENT shall prohibit the contractor from withholding retainage on any subcontract on this PROJECT to

ensure prompt and full payment from the contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed.

Section 20. Prohibited Interest. No member, officer, or employee of the CABINET or the LFUCG during his tenure or for one (1) year thereafter shall have any financial interest, direct or indirect, in this AGREEMENT or the proceeds thereof as identified in KRS 45A.340. The CABINET and the LFUCG shall comply with the requirements of the Executive Branch Code of Ethics KRS Chapter 11A. No member, officer, or employee of the CABINET or LFUCG shall collude or lobby on behalf of this PROJECT without penalty, including but not limited to suspension or debarment.

Section 21. Covenant Against Contingent Fees. The LFUCG warrants that no person, elected official, selling agency or other organization has been employed or retained to solicit or secure this AGREEMENT upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warranty, the CABINET shall have the right to annul this AGREEMENT without liability or, in its discretion, to deduct from the compensation, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

Section 22. Interest of Members of or Delegates to Congress. No funding has been or will be paid to a member or delegate to the Congress of the United States in connection with the awarding of this Federal contract. Nor shall any member of or delegate to the Congress of the United States receive any benefit arising out of this Federal contract.

Section 23. Maintenance as Public Facilities. As applicable, the LFUCG agrees to maintain the facilities, to include the installation of electronics, signals, etc., in an acceptable condition and for a public purpose in accordance with a maintenance plan. In addition, any applicable landscaping in any project shall be maintained in an acceptable condition to include mowing, trimming, or other maintenance in accordance with a maintenance plan. In the event that the property is not maintained as a public facility, the LFUCG shall reimburse the CABINET for all proceeds provided for in this PROJECT including any applicable interest, unless such change in use is approved in writing by the CABINET and FHWA, if applicable. The LFUCG shall obtain concurrence from the CABINET's District 7 Chief District Engineer in Lexington of a Maintenance Plan for any facilities to be constructed, prior to the awarding of any contract to construct such facilities.

Section 24. Americans with Disabilities Act. The LFUCG agrees to comply with the provisions of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, P.L. 93-112, and other applicable Federal regulations relating hereto, issued by the U.S. Department of Transportation. ADA prohibits discrimination against otherwise qualified individuals under any program or activity receiving Federal financial assistance covered by this AGREEMENT and imposes requirements that affect the design, construction, and maintenance of all transportation projects, to provide access to all facilities.

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS

Section 25. Applicable Laws. This AGREEMENT shall be in accordance with all federal laws, and the laws of the Commonwealth of Kentucky.

Section 26. Hold Harmless Clause. To the extent permitted by law, the LFUCG shall indemnify and hold harmless the FHWA and the CABINET and all of its officers, agents, and employees from all suits, actions, or claims of any character arising from any injuries, payments or damages received or claimed by any person, persons, or property resulting from implementation of any phase of the PROJECT or occurring on or near any PROJECT site.

Section 27. Contract Completion. The LFUCG is responsible for ensuring that all PROJECT activities have been completed and is responsible for providing all of the necessary paperwork as required by the contract. This involves conducting a pre-audit of all contract items and associated paperwork. If construction is a part of this PROJECT, the additional requirements of this section apply.

When complete, the LFUCG's project engineer in responsible charge of the PROJECT shall notify the CABINET the PROJECT is ready for final inspection. The LFUCG will conduct a field inspection to verify completion of the work in substantial conformance with the AGREEMENT. When both the LFUCG and the CABINET accept the field work as complete, the LFUCG's project manager shall certify the PROJECT was constructed in accordance with the plans and specifications and that all funding authorized on this PROJECT has been used to reimburse for materials, equipment, or labor as intended and at the location agreed herein by both parties. The CABINET's Chief District Engineer in Lexington will complete a Final Acceptance Report.

Within thirty (30) days upon receipt of the CABINET's Final Acceptance Report, the LFUCG will issue the final payment to the contractor and proof of payment to the CABINET with an official Release of Contractor form for signature. Upon receipt of the contractor's agreement to the Release of Contractor paperwork, the LFUCG will transmit the Final Estimate and Release to the CABINET. The CABINET will then submit a Final Voucher request to the FHWA Financial Management Team with copies of the CABINET's Final Acceptance Report and signed Final Release of Contractor. Approval of the Final Voucher will constitute Final Acceptance by the FHWA. In accordance with 2 CFR 200, the RECIPIENT shall maintain all PROJECT records for three (3) years after final payment.

Section 28. Audit and Inspection. The LFUCG, contractor and any subcontractors shall permit the CABINET, the Comptroller General of the United States and the Secretary of the United States Department of Transportation, or their authorized representatives, to inspect and approve all phases of the PROJECT and all relevant PROJECT data and records, including any audit(s) of the LFUCG pertaining to the PROJECT.

The LFUCG hereby acknowledges its duty to the CABINET to determine whether it is subject to the Single Audit Act of 1984, P.L. 98-502, and the Single Audit Act Amendments of 1996, P.L. 104-156. The LFUCG shall follow 2 CFR 200. In Accordance with 2 CFR 200 Subpart F, If the LFUCG has expended more than \$750,000 in

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS**

Federal funding from all sources in the LFUCG's fiscal year, the LFUCG shall provide the CABINET copies of their 2 CFR 200 Subpart F audit reports within 9 months of their fiscal year end.

The LFUCG hereby acknowledges it is responsible to inform any entity it intends to hire or use as a contractor, as defined in KRS 45A.030(9), that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any of the contractor's books, documents, papers, records, or other evidence, which are directly pertinent to this AGREEMENT for the purpose of financial audit or program review. Furthermore, any of the contractor's books, documents, papers, records or other evidence provided to the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, or the Legislative Research Commission which are directly pertinent to the AGREEMENT shall be subject to public disclosure regardless of the proprietary nature of the information, unless specific information is identified and exempted and agreed to by the Secretary of the Finance and Administration Cabinet as meeting the provisions of KRS 61.878(1)(c) prior to the execution of the AGREEMENT. The Secretary of the Finance and Administration Cabinet shall not restrict the public release of any information, which would otherwise be subject to public release if a State government agency were providing the service

Section 29. Campaign Finance. The LFUCG shall certify that the contractor swears under the penalty of perjury, as provided by KRS 523.020, that neither he/she nor the entity which he/she represents has knowingly violated any provisions of the campaign finance laws of the Commonwealth, and that the award of a contract to him/her or the entity which he/she represents will not violate any provisions of the campaign finance laws of the Commonwealth.

Section 30. Violations. Pursuant to KRS 45A.485, the LFUCG shall certify that all contractors shall reveal to the CABINET any final determination of a violation within the previous five (5) year period pursuant to KRS Chapter 139, 136, 141, 337, 338, 341 and 342. These statutes relate to the state sales and use tax, corporate and utility tax, income tax, wages and hours laws, occupational safety and health law, unemployment compensation law, and workers compensation insurance law, respectively.

The LFUCG shall certify that all contractors agree to be in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 for the duration of this AGREEMENT. Failure to reveal a final determination of a violation of the referenced statutes or to comply with these statutes for the duration of this AGREEMENT shall be grounds for the cancellation of the contract or subcontract and disqualification of the contractor from eligibility for future state contracts for a period of two (2) years.

Section 31. Personal Service Contracts and Memoranda of Agreement. If this AGREEMENT comes under the purview of KRS 45A.690 - 45A.725, payments on personal service contracts and memoranda of agreement shall not be authorized for services rendered after disapproval of the Government Contract Review Committee

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVEMENTS
\$480,000 – SLX (FD52) FUNDS

unless the decision of the committee is overridden by the Secretary of Finance and Administration Cabinet or agency head, if the agency has been granted delegation authority.

Section 32. Disputes. Any dispute concerning a question of fact in connection with the work, not disposed of by agreement between the LFUCG and the CABINET, shall be referred to the Secretary of the Transportation Cabinet of the Commonwealth of Kentucky, or his duly authorized representative, whose decision shall be final. Regulations concerning any claims to be filed by a contractor are referenced in 23 CFR 635.124.

Section 33. Agreement Change. Any proposed change to the Scope of Work or time extension to this AGREEMENT shall comply with 23 CFR 635.120 and 635.121 and shall be evidenced in writing at the mutual consent of the LFUCG and the CABINET.

Section 34. Termination. The CABINET reserves the right to cancel all reimbursements under this AGREEMENT at any time deemed to be in the best interest of the CABINET by giving thirty (30) days written notice of such cancellation to the LFUCG. If reimbursement under this AGREEMENT is canceled under this section by reason other than violation of this AGREEMENT or any applicable law by the LFUCG, its agents, employees and contractors, the CABINET shall reimburse the LFUCG according to the terms hereof for all expenses incurred under this AGREEMENT to the date of such cancellation of reimbursement. The LFUCG may seek to cancel its obligations under this AGREEMENT at any time deemed to be in the best interest of the LFUCG by giving thirty (30) days written notice of such request to the CABINET. If the CABINET agrees to allow the LFUCG to cancel the PROJECT or cancel its obligations under this AGREEMENT, the LFUCG shall reimburse the CABINET for all federal funding reimbursements made under this AGREEMENT.

Section 35. Resolution. The LFUCG shall pass a resolution authorizing the Mayor to sign this AGREEMENT on behalf of the LFUCG. An acceptable Resolution shall contain the project name, description, amount of funds being provided and an acknowledgement that the LFUCG agrees to ratify and adopt all statements, representations, warranties, covenants, and agreements contained in the AGREEMENT. Furthermore, by accepting the funds the LFUCG agrees to all terms and conditions stated in the AGREEMENT. A copy of the resolution shall be attached to the AGREEMENT (Attachment B) and returned to the CABINET prior to full execution of this PROJECT.

Section 36. Responsible Charge. The LFUCG shall designate a Person in Responsible Charge of this PROJECT according to the terms outlined in Attachment C. The LFUCG will provide the name and contact information for the Person in Responsible Charge prior to full execution of this PROJECT. The Attachment C information must be current for the LFUCG to be in compliance with the federal regulations and an eligible recipient of federal funds. Should a change occur, the LFUCG must submit a revised Attachment C within 7 days. Failure to comply can result in cancellation of the PROJECT

LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVMENTS
\$480,000 – SLX (FD52) FUNDS

IN TESTIMONY WHEREOF, the parties have hereto caused this AGREEMENT to be executed upon signature by their proper officers and representatives.


COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET:

Approved as to form and legality:

_____	_____
Attorney Transportation Cabinet	Jim Gray Secretary
Date: _____	Date: _____

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT:

Approved as to form and legality:

_____	 _____
Attorney	Linda Gorton Mayor
Date: _____	Date: <u>1/14/2023</u>

ATTACHMENT A – SCOPE OF WORK AND BUDGET SUMMARY

The Lexington – Fayette Urban County Government (LFUCG) Division of Traffic Engineering strives to improve traffic flow, reduce congestion and delay, and improve safety for all travelers within the county regardless of the travel mode. It is important to employ the most current technology and resources along with on-going training to make sure we provide the absolute best service to the traveling community.

This Project will fund a non-construction program to complement and enhance on-going traffic management efforts in Fayette County for Fiscal Year 2023. It complies with the Regional ITS Architecture update included in the Intelligent Transportation System Architecture Plan in accordance with the Congestion Management Process.

Project Listing:

1. Professional Services - Signal Timing

Many areas in Lexington have had construction work or new development projects that involve roadways being altered or otherwise improved. These changes often result in the need to change clearance intervals for both vehicles and pedestrians. Since the last time Lexington conducted a city-wide update to its clearance intervals, recommended standards in the Manual on Uniform Traffic Control Devices (MUTCD) have also been updated. To ensure our roadways are as safe as possible for vehicles and pedestrians, this project will consist of LFUCG contracting with a consultant to calculate and update clearance intervals at our signalized intersections for the most up-to-date standards based on current geometric conditions. This will include yellow and all-red clearances for vehicles and walk and flashing don't walk clearance intervals for pedestrians. Both KYTC and MUTCD standards will be applied.

Some funds may also be used for LFUCG to contract with a consultant to carry out necessary traffic counts and to develop traffic signal timing plans along a coordinated arterial in Lexington. Changing traffic patterns and travel habits resulting from the above mentioned projects along with increases in local population and commuting requires developing new signal timing plans to better accommodate current travel demands more effectively.

It is important to note that there is funding in the amount of \$110,000 remaining from the FY2023 grant for this project. From cost estimates, it is assumed that this is not going to be sufficient to complete the project the pedestrian and clearance interval project. This additional funding would ensure the completeness of that project and also likely allow money for the signal retiming of a corridor.

The project described above will fit within existing services described by the Lexington Area ITS Architectures; specifically TMS03, and DM01.

Project Cost Estimate - \$120,000

2. Traffic Detection Equipment Upgrades

Most traffic signals in Lexington are partially actuated meaning that no detection exists for the highest volume travel lanes (mainline). The mainline will serve its maximum allotted time each cycle before serving the side streets or left-turn lanes. While this type of operation occurs in many cities across the country it is not the most efficient method and with the rise of better software, adding mainline detection will give LFUCG the ability to more precisely manage traffic congestion. This continuation project will focus on adding mainline detection for the heaviest arterials and progress to roadways with lesser volumes as the project matures. In addition, this project will expand to also include upgrades to the mainline and some cross streets for multi-modal detection in order to detect the increasing number of pedestrian, cyclist, and scooters using Lexington's facilities. In addition to better signal functions, detection upgrades will allow LFUCG to constantly collect counts at these signalized intersection. This data can and will be used by LFUCG's Division of Traffic Engineering, Engineering, and Planning. Additionally, it is anticipated that this information will eventually be made available to the public via a website that can access the traffic count data.

The project above will fit within existing services described by the Lexington Area ITS Architectures; specifically TM03, TM09, and DM01.

Project Cost Estimate - \$92,000

3. Traffic Monitoring Network Upgrade and Expansion

This project will be a continuation of the traffic camera network upgrade project that began in Fiscal Year 2019. New cameras and features will be added to enhance coverage and capabilities to select areas. As part of this project, we may consider software that would give us analytical data and insight concerning our traffic and its patterns and incidents. This additional software would give us the ability to obtain vehicle class, speed, turning movement counts, red light running, intersection blocking, and possible wrong way detection. Our goal is to purchase software that not only integrates into our existing camera system, but also works in tandem with our central traffic signal system software. In addition to transportation and public safety entities, the visual camera feed is accessible to the public via the Lexingtonky.gov traffic website. This extended coverage allows the public to better determine their desired travel patterns, view the city during weather events, and provided valuable insights into traffic flow.

The project above will fit within existing services described by the Lexington Area ITS Architecture; specifically T101, TM01, TM03, and TM08

Project Cost Estimate - \$7,500

4. Utility Vehicle

Traffic Engineering is in need of a vehicle that is small enough to navigate in the vicinity of downtown, our trail systems, and other locations that are difficult to access with our larger work trucks. With the introduction of improvements such as the Town Branch Trail and other enhancements, we do not have a practical way to access traffic cabinets, fiber splice locations, or camera locations without creating major vehicle and pedestrian traffic blockages. This not only temporarily reduces capacity and cause congestion, it also can create unsafe transportation facility conditions.

A small utility vehicle, such as the E-Ride Patriot EXV2 maintenance truck is legal for street use and comes equipped with tool trays and dry lockable storage. Other LFUCG divisions currently own and operate this model for similar reasons. These vehicles are designed to be urban area work trucks. They have heat and air conditioning for year-round use and can be used to install and upgrade ITS equipment including traffic observation cameras, fiber optic communication hardware, traffic signal controllers, and wireless communication devices at any time without requiring disruptive vehicle or traffic blockages.

The project above will fit within existing services described by the Lexington Area ITS Architecture; specifically TM01, TM03, TM06, and DM01.

Project Cost Estimate - \$35,000

5. Transportation Analytics Platform

The Lexington Area MPO (LAMPO) and other offices responsible for operation, modification and analysis of the existing and proposed transportation network would benefit greatly by having convenient access to 'big data.' Anonymized data is collected from many of us via cell phones, GPS, and Bluetooth devices. This data is processed and made available for use for traffic studies, origin-destination studies, volume projections and has many other uses in determining the health of the transportation network or impacts a proposed change might have on it. This project will seek a data services software platform to assist with determining flexible corridor/area speeds, volumes, origin-destination, routing, and vehicle classification along arterial and collector routes within the LAMPO area. Information obtained will assist in verifying timing changes, lane closure impacts and help gauge capacity improvements due to geometric changes. *the Streetlight Data platform was selected and a multi-year agreement is in place. This is a continuing project.

The project above will fit within existing services described by the Lexington Area ITS Architecture; specifically TM02, TM06, DM01 and DM02.

Project Cost Estimate - \$149,000

6. Traffic Network Device Communication Upgrades

The existing network of over 95 miles of single-mode, multiple strand fiber is laid out in a 'daisy chain' or sequential fashion so that a single pair of fibers can adequately provide communications from the Traffic Management Center (TMC) to all the traffic signals along a given corridor. Unfortunately, the system was designed so that if any traffic signal cabinet is struck or loses power, that intersection and all others beyond it lose communications with the TMC. This is an efficient design but experience has shown that the vast majority of communication failures are due to a cabinet malfunction along a given route.

One solution we are proposing is to use LFUCG sites such as fire houses with solid fiber optic connections to house remote, managed switches to be used as corridor hubs. Strands of fiber already installed along the corridors would be spliced over and connected to each traffic signal with a separate run back to the remote switch. This approach would isolate traffic cabinet failures to a single location not impacting the adjacent signalized intersections.

Another solution involves improving our network with a mesh-type backbone that would allow rerouting of data along other paths if one path is severed. Additional communication hardware would be required.

Furthermore, Lexington Traffic Engineering has over 135 wireless hardware devices linking nearly 100 remote, signalized intersections to the fiber optic network and central system, along with many locations that simply cannot be reached with our network backbone. The current 900 MHz band used today strains to reliably deliver high definition video and data back to the central system which has a negative impact on services delivered and safety to the public. Replacement parts in this band are also becoming more difficult to procure. This project seeks to replace our wireless infrastructure with upgraded frequency bands and components to allow improved bandwidth, security, and connectivity, and to also implement mobile broadband solutions in locations we can't currently connect or for situations when normal communication lines are severed due to construction or other problems and a temporary solution is needed to bridge the gap until equipment can be repaired or replaced.

The project above will fit within existing services described by the Lexington Area ITS Architecture; specifically TM01, TM03 and TM09.

Project Cost - \$7,500

7. Associate Traffic Engineer Position

Lexington Traffic Engineering continues to expand its ITS systems in order to offer the highest degree of traffic flow optimization possible. These systems currently include over 95 miles of fiber optic cable, approximately 135 wireless connection devices, 397 traffic signals, 210 camera streams, and 374 radar units deployed in the field. Each one of these offers a great advantage to aid in the improvement of traffic flow on major arterials across the network. The management and future planning of ITS systems is critical in order to take full advantage of the advanced capabilities these systems provide. Lexington can help accomplish this with the creation of an additional Associate Traffic Engineer position. The duties of this position will include:

- Plan traffic observation camera locations as we expand – The better coverage we have of our traffic system, the more efficient it become to review and improve traffic signal timing and traffic flow. It eliminates time wasted travelling to field locations and also allows easier monitoring of traffic congestion, blocked intersections, or other traffic flow problems that need to be addressed
- Monitor our fiber optic and wireless network communication systems – In order for traffic signals to remain in synchronization, it is essential that they communicate with the central traffic system software. This not only ensures that all signals are operating on the same page, but it also allows for much faster traffic signal timing evaluations and adjustments
- Coordinate data collection efforts for various transportation detection technologies – the “big data” that is collected by our traffic detection devices is very useful for addressing changing traffic patterns, employing software solutions, and for confirming other data sets are delivering reliable data
- Review and improve traffic signal timing using available data and ITS solutions – With all of the data and technology at our fingertips, signal timing can be improved with most notable congestion reductions likely occurring during off-peak hours. There are many ways that Lexington can use the information from our mainline detection equipment to accomplish this. This position would be tasked with exploring and evaluating the features within the detection, the traffic signal controller, and the central system software to ensure we get the most bang for our buck.

The ultimate goal of Traffic Engineering and of this position is to provide a safe, reliable and efficient transportation facility for all users within Lexington’s traffic network. An Associate Traffic Engineer position would help achieve this goal with the planning, administration, and utilization of the various ITS devices Lexington operates and continues to deploy throughout the city.

The project described above will fit within existing services described by the Lexington Area ITS Architecture; specifically DM02, TM01, TM03, and TM06.

Project Cost Estimate - \$155,000

8. Traffic Control Cabinet and Security Upgrade

Several of Traffic Engineering’s traffic controller cabinets are at full capacity due to all outputs being used, such as on US27, Nicholasville Road. Upgrading these with a newer modern cabinet with more capacity would allow us to complete our Flashing Yellow Arrow (FYA) change-out for the city. The current cabinets cannot support both changeable lanes and FYAs at the same intersection. An advanced traffic cabinet with modern specifications would not only support more outputs and detection inputs, but also be safer and more energy efficient while supporting alternative power options. Other benefits include advanced diagnostics, simplified wiring, reduced cabinet size, voltage and current monitoring, Transit Signal Priority (TSP) capability, hot swappable components, and allowing for accommodation of onboard battery backup without the additional of an extra cabinet.

Another concern with existing traffic control cabinets is the ever-increasing threat to cyber-security. With each controller, there exists a possible entryway into Lexington’s signal system network. Lexington would benefit from the additional security measure of adding electronic locks to the cabinets to complement the existing mechanical locks. This extra layer of security would allow for protection and monitoring of the network. Retro-fitted Electronic locks with rechargeable intelligent keys would be a cost-effective way to help eliminate tampering and secure advanced equipment inside the cabinets. Features of this upgrade include the ability to monitor, schedule, change, update, and revoke lock privileges along time-and-date stamps of every authorized and unauthorized event recorded in both the lock and the key.

It is important to note that there is funding in the amount of \$28,000 remaining from the FY2023 grant for this project. From cost estimates, additional money will be needed to purchase an advanced traffic signal control cabinet since the cost has nearly doubled since the time the original request was made. The additional funding should allow the purchase of one new advanced cabinet.

The project described above will fit within existing services described by the Lexington Area ITS Architecture; specifically, TM01, TM03, TM16, and PT09

Project Cost Estimate - \$7,000

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVMENTS
\$480,000 – SLX (FD52) FUNDS**

9. Traffic Signal Controller Testers

Briefcase testers for 170 and 2070 controllers are essential for testing and troubleshooting signal timing programming and related issues. This prevents congestion and also maintenance calls if the operation of can be verified before the programming gets deployed to the field intersection. They are invaluable tools for maintaining safe operations at signalized intersections. Lexington has used this type of tester for over 15 years and some of our units are dated and in need of replacement. This requested funding will allow us to purchase three testers.

The project described above will fit within existing services described by the Lexington Area ITS Architecture; specifically TM03.

Project Cost Estimate - \$15,000

Funding details:

Item	Title	Cost	Description
1.	Professional Services	\$120,000	Signal Retiming and clearance interval timing updates
2.	Traffic Detection Equipment Upgrades	\$92,000	Upgrade or add multimodal detection equipment to arterials throughout Lexington
3.	Traffic Monitoring Network Upgrade and Expansion	\$7,500	Additional camera equipment for intersection traffic surveillance and camera system analytic software
4.	Utility Cart Vehicle	\$35,000	Vehicle to access hard to reach locations for ITS equipment installations and upgrades
5.	Transportation Analytics Platform	\$149,000	Monitor the transportation network and provide data, metrics, and performance standards
6.	Traffic Network Device Communication Upgrades	\$7,500	Redundancy and reliability improvements in our fiber optic and wireless networks and devices
7.	Associate Traffic Engineer Position	\$155,000	Staff position to plan, monitor, and ensure optimum use of existing and future ITS equipment purchases
8.	Traffic Control Cabinet and Security Upgrade	\$7,000	Advanced Traffic Signal Cabinets with added outputs and programmable Electronic Locks with event auditing
9.	Traffic Signal Controller Testers	\$15,000	170/270 controller tester to test and troubleshoot signal timing solutions for advanced operation
10.	Training	\$10,000	Training and conferences for personnel regarding ITS hardware, software, and methods
11.	Mileage	\$2,000	Floating car studies, off-site meetings, and signal timing troubleshooting and improvements
	Total	\$600,000	

It is anticipated that activities included in this proposal will be completed by June 30, 2025 (a 2 year window).

**LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT
ITS-CMS TRAFFIC IMPROVMENTS
\$480,000 – SLX (FD52) FUNDS**

ATTACHMENT B – RESOLUTION

**ATTACHMENT C
PERSON IN RESPONSIBLE CHARGE**

Upon federal-aid project delegation to the LFUCG by the CABINET, the undersigned hereby certifies the following, to the best of his or her knowledge and belief, on behalf of the LFUCG:

1. Pursuant to 23 CFR 635.105(c) (4), the LFUCG acting as a subrecipient of federal transportation funds must provide an employee of that agency, who is available full time, to be in responsible charge of the PROJECT. The individual in responsible charge of the PROJECT is held accountable for ensuring that all applicable Federal and State regulations are followed on the PROJECT. This person will have the authority and resources to manage the PROJECT and will be the primary point of contact with the CABINET. This person may be the project engineer provided that the project engineer is a full-time employee of the LFUCG. If the project engineer is a consultant, the person in responsible charge must be a full-time employee of the LFUCG.
2. The undersigned and the designated LFUCG's person in responsible charge of this PROJECT has read and understands the contract administration and inspection responsibilities described in the CABINET's *Federal-Aid Highway Program Project Development Guide for Local Public Agencies* (LPA Guide).
3. The undersigned will carry out this PROJECT in accordance with the applicable Federal and State laws and associated regulations identified in the LPA Guide.
4. The undersigned will enforce compliance with the above-mentioned laws, regulations, policies, and guidelines by its consultants, contractors, and subcontractors.
5. The undersigned certifies the designated person in responsible charge will:
 - Have the ability to visit the PROJECT or attend meetings related to the PROJECT as needed.
 - Be responsible for ensuring that the PROJECT is delivered on time in accordance with established milestones and the terms of the contract between the RECIPIENT and the CABINET.
6. In accordance with the requirements outlined above, LFUCG has selected the following individual as the person in responsible charge for the PROJECT:

Name: Jason Allinder, P.E.	Position with LFUCG: Traffic Signal System Manager
E-mail: jallinde@lexingtonky.gov	Phone: 859-258-3491
Signature: <i>Jason Allinder</i> 6/22/23	

7. Should the LFUCG require a change to the Person in Responsible Charge, they will notify the CABINET, designate a new Person in Responsible Charge, and resubmit the Attachment C within 7 days of the change. The new Attachment C will be incorporated into this Agreement upon approval by the CABINET.

Linda Gorton

 Linda Gorton, Mayor

7/14/2023

 Date